CITY of CLOVIS

AGENDA • APRIL 18, 2024 PLANNING

Council Chamber, 1033 Fifth Street, Clovis, CA 93612 (559) 324-2060
www.cityofclovis.com

April 18, 2024 6:00 PM Council Chamber

In compliance with the Americans with Disabilities Act, if you need special assistance to access the City Council Chamber to participate at this meeting, please contact the City Clerk or General Services Director at (559) 324-2060 (TTY – 711). Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the Council Chamber.

The Clovis City Council meetings are open to the public at the physical address listed above. There are numerous ways to participate in the City Council meetings: you are able to attend in person; you may submit written comments as described below; and you may view the meeting which is webcast and accessed at www.cityofclovis.com/agendas.

Written Comments

- Members of the public are encouraged to submit written comments at: www.cityofclovis.com/agendas at least two (2) hours before the meeting (4:00 p.m.). You will be prompted to provide:
  - Council Meeting Date
  - Item Number
  - Name
  - Email
  - Comment
- Please submit a separate form for each item you are commenting on.

SCAN ME

- A copy of your written comment will be provided to the City Council noting the item number. If you wish to make a verbal comment, please see instructions below.
- Please be aware that any written comments received that do not specify a particular agenda item will be marked for the general public comment portion of the agenda.
- If a written comment is received after 4:00 p.m. on the day of the meeting, efforts will be made to provide the comment to the City Council during the meeting. However, staff cannot guarantee that written comments received after 4:00 p.m. will be provided to City Council during the meeting. All written comments received prior to the end of the meeting will be made part of the record of proceedings.

CALL TO ORDER

FLAG SALUTE

ROLL CALL

APPROVAL OF MINUTES

1. Planning Commission Minutes for the Meeting of March 28, 2024.

COMMISSION SECRETARY COMMENTS

PLANNING COMMISSION MEMBER COMMENTS

PUBLIC COMMENTS - This is an opportunity for the members of the public to address the Planning Commission on any matter within the Planning Commission's jurisdiction that is not listed on the Agenda. In order for everyone to be heard, please limit your comments to 5 minutes or less, or 10 minutes per topic. Anyone wishing to be placed on the Agenda for a specific topic should contact the Planning Division and submit correspondence at least 10 days before the desired date of appearance.

PUBLIC HEARINGS - A public hearing is an open consideration within a regular or special meeting of the Planning Commission, for which special notice has been given and may be required. When a public hearing is continued, noticing of the adjourned item is required as per Government Code 54955.1.

2. Consider Approval - Res. 24-___, R2024-001, Recommending that the City Council approve an exemption from further environmental review under CEQA Guidelines Section 15183, and approve a rezone, adjusting the existing zoning designation from the R-1-7500 (Single Family Residential – 7,500 sq. ft.) Zone District to the C-P (Administrative and Professional Office) Zone District for the property located at 488 N. Armstrong Avenue. Dale and Mary De Geode, owner; GMA Engineering, applicant and representative.

   Staff: Marissa Jensen, Assistant Planner

   Recommendation: Approve

3. Consider items associated with approximately 246 acres of land located southwest of the intersection of Behymer Avenue and the Sunnyside Avenue alignment, within the Heritage Grove Urban Center. Great Bigland LP., owner; Wilson Premier Homes, Inc., applicant; Harbour and Associates, representative.
   Consider Approval - Res. 24-__, A resolution recommending that the City Council: (1) certify the Final Environmental Impact Report for the TM6343 Project; (2) adopt CEQA Findings of Fact and a Statement of Overriding Consideration; and (3) adopt a Mitigation Monitoring and Reporting Program.

   Consider Approval – Res. 24-__, GPA2021-003, A resolution recommending that the City Council approve a request to amend the land use element of the General Plan for the Development Area (approximately 71.54 acres) from the Medium Density land use designation to the Medium High Density land use designation.

Consider Approval - Res. 24-__, R2021-006, A resolution recommending that the City Council approve a request to prezone the properties within the annexation area (246 acres) from the Fresno County AE-20 Zone District to the Clovis O, P-F, R-A, R-1, and R-1-PRD Zone Districts.

Consider Approval - Res. 24-__, TM6343, A resolution recommending that the City Council approve a vesting tentative tract map for a 590-lot single-family planned residential.

Consider Approval - Res. 24-___, PDP2021-001, A resolution recommending that the City Council approve a request to approve a planned development permit for a 590-lot single-family residential development.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

ADJOURNMENT

MEETINGS & KEY ISSUES

Regular Planning Commission Meetings are held at 6 P.M. in the Council Chamber. The following are future meeting dates:

May 23

June 27

July 25

CLOVIS PLANNING COMMISSION MINUTES
March 28, 2024

A meeting of the Clovis Planning Commission was called to order at 6:00 p.m. by Chair Antuna in the Clovis Council Chamber.

Flag salute led by Commissioner Bedsted

Present: Commissioners Bedsted, Hatcher, Hinkle, Chair Antuna

Absent: Commissioner Hebert

Staff: McKencie Perez, Senior Planner
George Gonzalez, Senior Planner
Liz Salazar, Assistant Planner
Eric Garcia, Planning Technician I
Sean Smith, Supervising Civil Engineer
Matt Lear, City Attorney

MINUTES – 6:01
ITEM 1 – APPROVED.

Motion by Commissioner Hatcher, seconded by Commissioner Hinkle, to approve the February 22, 2024, minutes. Motion carried 4-0-1 with Commissioner Hebert absent.

COMMISSION SECRETARY – 6:02
None.

PLANNING COMMISSION MEMBERS COMMENTS – 6:02
Commissioner Hinkle expressed gratitude for the Planning Department sending him and others to the Planning Commissioners Academy.

PUBLIC COMMENTS – 6:03
None.

PUBLIC HEARINGS
ITEM 1 - 6:03 – APPROVED – **RES. 24-06**, A REQUEST TO APPROVE A SECOND ONE-YEAR EXTENSION TO THE APPROVED VESTING TENTATIVE TRACT MAP 6203 LOCATED ON THE WEST SIDE OF THOMPSON AVENUE, BETWEEN ASHLAN AND DAKOTA AVENUES. KB HOMES, OWNER/APPLICANT; SHANNON TRAVIS, REPRESENTATIVE.

Motion by Commissioner Bedsted, seconded by Commissioner Hatcher, for the Planning Commission to approve **Resolution 24-06,** a resolution approving a second one-year extension to the approved vesting tentative tract map 6203 located on the west side of Thompson Avenue, between Ashlan and Dakota Avenues. Motion carried 4-0-1 with Commissioner Hebert absent.

ITEM 2 - 6:08 – APPROVED – **RES. 24-07**, CUP2017-004A, ADOPTING A CLASS 1 CATEGORICAL EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW UNDER CEQA AND A REQUEST TO APPROVE A CONDITIONAL USE PERMIT TO ALLOW A ±1,545 SQUARE FOOT EXPANSION OF

THE VETERINARY HOSPITAL LOCATED AT 1710 SHAW AVENUE. GOBIND GILL LLC, OWNER AND APPLICANT; SUNDEEP GREWAL, STUDIO G+S ARCHITECTS, REPRESENTATIVE.

Motion by Commissioner Bedsted, seconded by Commissioner Hatcher, for the Planning Commission to approve **Resolution 24-07,** a adopting a Class 1 Categorical Exemption from further environmental review under CEQA and approving a conditional use permit to allow a ±1,545 square foot expansion of the veterinary hospital located at 1710 Shaw Avenue. Motion carried 4-0-1 with Commissioner Hebert absent.

ADJOURNMENT AT 6:14 P.M. UNTIL the Planning Commission meeting on April 18, 2024.

_____

Alma Antuna, Chairperson

CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: April 18, 2024

SUBJECT: Consider Approval - Res. 24-___, R2024-001, Recommending that the City Council approve an exemption from further environmental review under CEQA Guidelines Section 15183, and approve a rezone, adjusting the existing zoning designation from the R-1-7500 (Single Family Residential – 7,500 sq. ft.) Zone District to the C-P (Administrative and Professional Office) Zone District for the property located at 488 N. Armstrong Avenue. Dale and Mary De Geode, owner; GMA Engineering, applicant and representative.

Staff: Marissa Jensen, Assistant Planner
Recommendation: Approve

ATTACHMENTS:
1. Res. 24-___, R2024-001
2. Conceptual Site Plan, Floor Plans & Elevations
3. Correspondence from Commenting Agencies

CONFLICT OF INTEREST
None.

RECOMMENDATION
Staff recommends that the Planning Commission adopt a resolution recommending that the City Council adopt an exemption from further environmental review pursuant to California Environmental Quality Act ("CEQA") Guidelines section 15183 and approve Rezone 2024-001.

EXECUTIVE SUMMARY
As shown in **Figure 1** below, the applicant is requesting approval of a rezone, adjusting the existing zoning designation of the ±1.3-acre site from the R-1-7500 (Single Family Residential – 7,500 sq. ft.) Zone District to the C-P (Administrative and Professional Office) Zone District ("Project"). The General Plan designates the subject property as O (Office), which is inconsistent with the property's current residential zone district. The approval of this rezone would remedy the inconsistency between the existing General Plan land use and zoning designations. In addition, approval of this rezone will allow the developer to move forward with the infill development of the site.

FIGURE 1 Project Location

BACKGROUND

- General Plan Designation: O (Office)
- Existing Zoning: R-1-7500 (Single Family Residential – 7,500 sq. ft.)
- Lot Size: ±1.3 acres
- Current Land Use: Single Family Residence
- Adjacent Land Uses:
  - North: Rural Residential
  - South: Office
  - East: Commercial
  - West: Office
- Previous Entitlements: GPA94-01 & 2004-13

Records indicate the subject parcel has remained a rural residential property with a single-family residence since the property's annexation into the City in 1991. The Herndon Armstrong Professional Center development is located immediately south of the Project site, at the northwest corner of Herndon and Armstrong Avenues. The multi-building office complex was developed as a cohesive Planned Unit Development, approved, and established through Conditional Use Permit 2005-21 and Tract Map 5616.

PROPOSAL AND ANALYSIS

The applicant is requesting approval of this rezone to rectify the existing inconsistent zoning designation of the ±1.3-acre subject site, adjusting from the R-1-7500 (Single Family Residential – 7,500 sq. ft.) Zone District to the appropriate C-P (Administrative and Professional Office) Zone District.

Through the rezone process, the zoning on the subject property will be made consistent with the existing General Plan designation. Once consistency is achieved, the property will be viable for infill development in accordance with the General Plan. If the proposed application is approved, the applicant intends to move forward with a site plan review application for two (2) ±5,000 square foot office buildings, consistent with those directly to the south of the subject site as shown conceptually in **Attachment 2**.

Existing Site and Surrounding Area

The Project is located on a ±1.3-acre site with offices to the south, rural residences to the north, property zoned C-2 (Community Commercial) that is currently under construction for an office building to the east, and a medical office building to the west. The proposed development will not create any negative impacts to the existing land uses and contributes to the planned development of the area.

General Plan and Zoning Consistency

California State Planning and Zoning Law requires that cities maintain consistent zoning per the General Plan. The General Plan land use diagram designates land use types for properties, while the zoning regulates development and uses on properties. The purpose of the Zoning Code is to implement the General Plan, thus necessitating consistency between the two. The City's General Plan was most recently updated in 2014 through General Plan Amendment 2014-9. At that time, the land use designation of the site was modified from M-U (Mixed-Use) to O (Office). However, no modifications to the parcel's zoning (R-1-7500) were made in conjunction with the 2014 General Plan Update, thus creating a non-conforming situation.

As indicated earlier in this report, the Project site has a current zoning designation of R-1-7500 (Single Family Residential – 7,500 sq. ft.). This zone district is associated with single-family uses and development and is consistent with the Low-Density Residential land use designation of the General Plan. In accordance with City practice, the existing single-family residential use cannot be intensified because of the inconsistency between the zoning and the general plan designation. However, the use and property, as it exists, may continue until redevelopment is proposed. New development must be in accordance with the General Plan land use diagram. This will require that the zoning is brought into consistency with the General Plan designation. In this situation, the proposed rezone to the C-P (Administrative and Professional Office) Zone District is consistent with the Office General Plan land use designation of the property.

Review and Comments by Agencies

The Project was distributed to all City Divisions as well as outside agencies, including Caltrans, Clovis Unified School District, Fresno Irrigation District, Fresno Metropolitan Flood Control District, AT&T, PG&E, and the San Joaquin Valley Air Pollution Control District.

Comments received are attached (**Attachment 3**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the applicant for their records.

Public Comments

The City published notice of this public hearing in *The Business Journal* on Monday, April 8, 2024. A public notice was also sent to property owners within a minimum of 600 feet of the project site boundaries. Staff have not received any inquiries prior to the finalization of the staff report.

California Environmental Quality Act (CEQA)

The City has determined that no additional environmental review is required for this Project pursuant to CEQA Guidelines Section 15183. Section 15183 mandates that projects with the development density established by existing zoning, community plan, or general plan policies for which an environmental impact report (EIR) was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. (Cal. Code Regs., Tit. 14, § 15183, subd. (a).)

In this case, the Project has been identified to be consistent with the EIR that was previously certified for the 2014 General Plan Update in September 2014. The EIR accounted for growth and development in the Plan Area through 2035 and beyond. If approved, this project would bring the project site into conformance with the planned land use designation prescribed in the 2014 General Plan Update. An analysis of the Project in relation to the EIR and technical memos provided, determined that there are no peculiarities of the Project that differ from the features identified and analyzed in EIR. Additionally, the overall size and location of the Project is consistent with the existing office designation for this specific location through the General Plan. Therefore, a Notice of Exemption has been completed. Staff will file the notice with the County Clerk if the Project is approved.

REASON FOR RECOMMENDATION

The Project is consistent with the goals and policies of the General Plan, and the Clovis Municipal Code (CMC). Based on the following findings, staff is recommending that the Planning Commission adopt a resolution recommending that the City Council approve rezone application R2024-001, to adjust the inconsistent zoning designation of the Project site from the R-1-7500 (Single Family Residential – 7,500 sq. ft.) Zone District to the appropriate C-P (Administrative and Professional Office) Zone District.

Rezone 2024-001

The findings to consider when making a decision on a rezone application include:

1. The proposed rezone is consistent with the goals, policies, and actions of the General Plan.

   The Project will correct the inconsistency between the existing land use designation and zoning district. The proposed rezone to the C-P Zone District is consistent with the existing Office land use designation of the General Plan. Goal 6 of the General Plan Land Use Element is a City that grows and develops in a manner that implements its vision, sustains the integrity of its guiding principles, and requires few and infrequent amendments to the General Plan. By rezoning the subject property to C-P, the land use designation and zoning will be consistent, and the property will be developed in accordance with the planned land use.

2. The proposed rezone would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.

   The Project will not to be detrimental to the public interest, health, safety, and convenience, or general welfare of the City. The Project will be developed according to the planned land use. The proposed development associated with the Project will comply with all applicable CMC standards. The Project has been reviewed by the City Departments and no concerns were expressed.

3. The proposed rezone is internally consistent with other applicable provisions of the Development Code.

   If approved, the development portion of the proposed Project would be subject to review under the site plan review process. Site specific details will be evaluated to ensure that applicable development requirements of the CMC are met.

4. The parcel is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested zoning designations and anticipated land uses/projects.

   The Project is physically suitable for the type and intensity of development proposed by the applicant. It is surrounded by office uses and is on a parcel that can adequately be served by utilities and accessed by its members. The proposed development has undergone scrutiny through the City's preliminary application process (Development Review Committee), confirming the site's physical suitability for accommodating the proposed project. ***Attachment 2*** *presents a conceptual depiction of the proposed development. Further evaluation will occur through the site plan review process to ensure compliance with all development standards. While minor adjustments to the site plan and elevations may be necessary during this review, they are not anticipated to impede the developability of the site itself.*

ACTIONS FOLLOWING APPROVAL
This Project will continue to the City Council for final consideration.

NOTICE OF HEARING
Property owners within 600 feet notified: 34

Prepared by: Marissa Jensen, Assistant Planner

Reviewed by: _____
Dave Merchen
City Planner

RESOLUTION 24____

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS RECOMMENDING THAT THE CITY COUNCIL ADOPT AN EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW UNDER CEQA GUIDELINES SECTION 15183, AND APPROVE REZONE 2024-001, ADJUSTING THE EXISTING ZONING DESIGNATION FROM THE R-1-7500 (SINGLE FAMILY RESIDENTIAL – 7,500 SQ. FT.) ZONE DISTRICT TO THE C-P (ADMINISTRATIVE AND PROFESSIONAL OFFICE) ZONE DISTRICT

WHEREAS, GMA Engineering (Applicant and Representative), 7337 N. First Street, Suite 110, Fresno, CA, 93720, applied for Rezone 2024-001 to adjust the existing zoning designation from the R-1-7500 (Single Family Residential – 7,500 sq. ft.) Zone District to the C-P (Administrative and Professional Office) Zone District for property located at 488 N. Armstrong Avenue, in the City of Clovis (Project); and

WHEREAS, the purpose of Rezone 2024-001 is to bring the zoning into conformance with the existing O (Office) General Plan land use designation, thereby allowing the Project site to be developed in accordance with the General Plan; and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on Monday, April 8, 2024, mailed public notices to property owners within a minimum of 600 feet of the Project site more than ten (10) days prior to the Planning Commission hearing, and otherwise posted notice of the public hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on April 18, 2024; and

WHEREAS, the Planning Commission considered the California Environmental Quality Act ("CEQA") analysis outlined in the staff report and elsewhere in the Administrative Record which determined that no additional environmental review is required for this Project pursuant to CEQA Guidelines section 15183; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, not limited to, the staff report, the written materials submitted with the applicant's request, the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached hereto as **Attachment A** to this Resolution, which are all incorporated herein by this reference.

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Planning Commission finds that the Project is consistent with the City's General Plan land use designation and is therefore exempt from further environmental review under the California Environmental Quality Act ("CEQA"), pursuant to CEQA Guidelines section 15183.

2. The Planning Commission hereby recommends that the City Council adopt an exemption from further environmental review pursuant to CEQA Guidelines section 15183.

3. The Planning Commission hereby finds that the Project satisfies the required findings for approval of a Rezone, as follows:

   a. The proposed rezone is consistent with the goals, policies, and actions of the City's General Plan.

   b. The proposed rezone would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.

   c. The proposed rezone is internally consistent with other applicable provisions of the Development Code.

   d. The Property is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested zoning designation and development of the Project.

4. The Planning Commission hereby recommends that the City Council approve Rezone 2024-001.

5. The basis for the findings is detailed in the April 18, 2024 staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * * *

The foregoing resolution was adopted by the Clovis Planning Commission at its regular meeting on April 18, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-___
DATED: April 18, 2024

_____
Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

AGENDA ITEM NO. 2.

GENERAL NOTES:

1. APPROVAL OF THIS SPECIAL PERMIT MAY BECOME NULL AND VOID IN THE EVENT THAT DEVELOPMENT IS NOT COMPLETED IN ACCORDANCE WITH ALL THE CONDITIONS AND REQUIREMENTS IMPOSED ON THIS SPECIAL PERMIT, THE ZONING ORDINANCE, AND ALL PUBLIC WORKS STANDARDS AND SPECIFICATIONS. THE DEVELOPMENT SERVICES MANAGEMENT DEPARTMENT SHALL NOT ASSUME RESPONSIBILITY FOR ANY DELETIONS OR OMISSIONS RESULTING FROM THE SPECIAL PERMIT REVIEW PROCESS OR FOR ADDITIONS OR ALTERATIONS TO CONSTRUCTION PLANS NOT SPECIFICALLY SUBMITTED AND REVIEWED AND APPROVED PURSUANT TO THIS SPECIAL PERMIT OR SUBSEQUENT AMENDMENTS OR REVISIONS.
2. THE CONSTRUCTION OF ANY OVERHEAD, SURFACE OR SUBSURFACE STRUCTURES AND APPURTENANCES IN PUBLIC RIGHT-OF-WAY IS PROHIBITED UNLESS AN ENCROACHMENT PERMIT IS APPROVED BY THE CITY ENGINEER. FOR ENCROACHMENT PERMIT INFORMATION, CONTACT ENGINEERING SERVICES AT (559) 324-2312. ENCROACHMENT PERMITS MUST BE APPROVED PRIOR TO ISSUANCE OF BUILDING PERMITS.
3. IF ARCHAEOLOGICAL AND/OR ANIMAL FOSSIL MATERIAL IS ENCOUNTERED DURING PROJECT SURVEYING, GRADING, EXCAVATING, OR CONSTRUCTION, WORK SHALL STOP IMMEDIATELY.
4. IF THERE ARE SUSPECTED HUMAN REMAINS, THE FRESNO COUNTY CORONER SHALL BE CONTACTED IMMEDIATELY. IF THE REMAINS ARE OR OTHER ARCHAEOLOGICAL MATERIAL IS POSSIBLY NATIVE AMERICAN IN ORIGIN, THE NATIVE AMERICAN HERITAGE COMMISSION (PH: (916) 373-3710) SHALL BE IMMEDIATELY CONTACTED, AND THE CALIFORNIA ARCHAEOLOGICAL INVENTORY/ SOUTHERN SAN JOAQUIN VALLEY INFORMATION CENTER (PH: (661) 654-2289) SHALL BE CONTACTED TO OBTAIN A REFERRAL LIST OF RECOGNIZED ARCHAEOLOGISTS. AN ARCHAEOLOGICAL ASSESSMENT SHALL BE CONDUCTED FOR THE PROJECT, THE SITE SHALL BE FORMALLY REGARDED, AND RECOMMENDATIONS MADE TO THE CITY AS TO ANY FURTHER SITE INVESTIGATION OR SITE AVOIDANCE/PRESERVATION.
5. IF ANIMAL FOSSILS ARE UNCOVERED, THE MUSEUM OF PALEONTOLOGY, U.C. BERKELEY SHALL BE CONTACTED TO OBTAIN A REFERRAL LIST OF RECOGNIZED PALEONTOLOGISTS. A PALEONTOLOGIST SHALL CONDUCT AN ASSESSMENT AND, IF THE PALEONTOLOGIST DETERMINES THE MATERIAL TO BE SIGNIFICANT, IT SHALL BE PRESERVED.
6. SUITABLE TOILET FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A SANITARY CONDITION FOR THE USE OF WORKERS DURING CONSTRUCTION, (CFC SECTION 412.1)
7. TEMPORARY FENCES TO SECURE PROJECTS UNDER CONSTRUCTION ARE ALLOWED. ANY TEMPORARY FENCE SHALL BE ADEQUATELY SECURED AND CONSTRUCTED TO PREVENT OVERTURNING DUE TO WIND, VANDALISM, AND/OR CASUAL CONTACT BY THE GENERAL PUBLIC. THE CONSTRUCTION SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE ANY POTENTIAL SAFETY HAZARD WHICH MAY OCCUR AS A RESULT OF IMPROPER FENCE INSTALLATION OR DAMAGE TO THE FENCE.
8. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF CLOVIS, PUBLIC UTILITIES DEPARTMENT OR STREET CONSTRUCTION PLANS REQUIRED AND APPROVED BY THE CITY ENGINEER. THE PERFORMANCE OF ANY WORK WITHIN THE PUBLIC STREET RIGHT-OF-WAY/ALONG PEDESTRIAN AND UTILITY EASEMENTS) REQUIRES A "STREET WORK PERMIT" PRIOR TO OCCUPANCY.
9. ANY CONSTRUCTION ON STATE HIGHWAYS MUST CONFORM TO BOTH CITY OF CLOVIS AND STATE DIVISION OF HIGHWAY SPECIFICATIONS.
10. WINDOW SIGNS ARE LIMITED TO 4 SQUARE FEET IN AREA, PROVIDING INFORMATION ABOUT HOURS OF OPERATION AND EMERGENCY SERVICE INFORMATION ONLY. TEMPORARY BANNER, BALLOON OR SPECIAL EVENT SIGNS ARE PROHIBITED UNLESS SPECIFICALLY PERMITTED AND APPROVED BY THE DEVELOPMENT DIRECTOR. ATTACHED TO THE BUILDING AND NOT EXCEEDING 32 SQUARE FEET IN AREA. SIGNAGE UNDER SEPARATE PERMIT AND REVIEW.
11. STORAGE SHELVING OVER 8-FEET HIGH WILL REQUIRE PLANS AND CALCULATIONS AND A SEPARATE PERMIT WITH APPROVAL FROM THE CITY.
12. PROVIDE ICBO CERTIFICATION FROM THE SHOP HELDING FACILITY OR PROVIDE SPECIAL INSPECTION OF SHOP WELDING INCLUDING CERTIFICATION OF WELDERS CURRENTLY PRUDED TO PERMIT INSURANCE.
13. HIGH STRENGTH BOLTING, CONCRETE WITH F'C GREATER THAN 2500 PSI, SHOP AND FIELD WELDING MUST BE INSPECTED BY APPROVED INDEPENDENT INSPECTORS RETAINED BY THE OWNER. INSPECTORS SHALL SUBMIT THEIR REPORTS DIRECTLY TO THE CITY OF CLOVIS BUILDING DEPARTMENT.
14. CONTACT CITY OF CLOVIS BUILDING DEPARTMENT TO SCHEDULE A SPECIAL INSPECTION MEETING AT THE JOB SITE.
15. THE SPECIAL INSPECTOR SHALL SUBMIT A COPY OF ALL SPECIAL INSPECTION REPORTS TO THE CITY OF CLOVIS BUILDING DEPARTMENT.
16. PROVIDE GATE ACCESS BY 5:30 A.M. OR PROVIDE REMOTE, KEY, OR ACCESS CODE TO WASTE MANAGEMENT PER THEIR REQUIREMENTS.
17. INSTALL A BACKFLOW PREVENTION DEVICE PER CITY OF CLOVIS STANDARDS. SEE CIVIL PLANS FOR NOTED REQUIREMENTS AND PRIOR TO SERVICE, BACKFLOW DEVICE SHALL BE INSPECTED AND FINALIZING THE CORRESPONDING PERMIT.
18. SECURITY CAMERAS SHALL BE INSTALLED TO COVER AT A MIN. THE LOBBY, ENTRANCE, AND EXITS. THE VIDEO SHALL BE RETAINED FOR A MIN. OF 30 DAYS. VIDEO SHALL BE MADE AVAILABLE TO CLOVIS POLICE DEPARTMENT UPON REQUEST IN CONJUNCTION WITH A CRIMINAL INVESTIGATION.
19. THE SIDEWALKS AND PARKING LOTS SHALL BE REASONABLE ILLUMINATED TO ENHANCE PUBLIC SAFETY AND DETER CRIMINAL ACTIVITY, THE LIGHTING SHALL BE SHIELDED IN A MANNER SO THAT IT DOES NOT CREATE A NUISANCE FOR NEIGHBORING PROPERTIES.
20. THE PROPERTY MUST BE MAINTAINED AND CARED FOR IN A MANNER THAT INCREASES PUBLIC SAFETY AND FOLLOWS THE CLOVIS MUNICIPAL CODE AND ALL OTHER APPLICABLE CITY CODES. ALL LIGHTING, GATES, AND FENCES SHALL BE MAINTAINED AND IN WORKING ORDER, AND LANDSCAPING SHALL BE KEPT CLEAN AND FREE OF UNSIGHTLY HAZARDS.
21. THE SITE OWNER SHALL MAINTAIN ALL STRUCTURES AND ADJOINING FENCES/ WALLS AND KEEP THEM FREE OF GRAFFITI. ALL INSTANCES OF GRAFFITI SHALL BE REMOVED WITHIN 48 HOURS.
22. IF THE PROPERTY IS ALARMED, 24-HOUR CONTACT INFORMATION FOR THE RESPONSIBLE PARTY SHALL BE MAINTAINED WITH THE CLOVIS POLICE DEPARTMENT DISPATCH CENTER.

FIRE NOTES:

1. DESIGNATED ("HIGHLIGHTED") CURBS MILL BE PAINTED RED WITH 3" LETTERS STATING "FIRE LANE" "NO PARKING" EVERY 50 FEET OR APPROVED SIGNS EVERY 50 FEET, 6" RED STRIPE IF NO CURB EXIST.
2. PROVIDE SIGN (17"x22" MIN.) AT ALL PUBLIC ENTRANCE DRIVES TO THE PROPERTY, WHICH STATES "WARNING-VEHICLES STOPPED, PARKED, OR LEFT STANDING IN FIRE LANES WILL BE IMMEDIATELY REMOVED AT OWNER'S EXPENSE - 2265816 CVC CLOVIS POLICE DEPT. 324-572-4500".
3. FIRE EXTINGUISHER LOCATIONS AND TYPE SHALL BE PROVIDED FOR BUILDINGS UNDER CONSTRUCTION FOR THE TYPE OF HAZARD PRESENT DURING CONSTRUCTION AS REQUIRED BY THE FIRE MARSHAL.
4. ALL CONSTRUCTION WORK ON THIS PROJECT IS SUBJECT TO INTERRUPTION IF THE ROAD SYSTEM BECOMES IMPASSABLE FOR FIRE APPARATUS DUE TO RAIN OR OTHER OBSTACLES.
5. FIRE HYDRANTS AND ACCESS ROADS SHALL BE INSTALLED, TESTED AND APPROVED AND SHALL BE MAINTAINED SERVICEABLE PRIOR TO AND DURING ALL PHASES OF DEVELOPMENT. THE 4½" OUTLET SHALL FACE THE ACCESS LANE.
6. ALL PRIVATE STREETS AND DRIVEWAYS THAT ARE PROVIDED FOR COMMON ACCESS, AND ARE REQUIRED FOR FIRE DEPARTMENT ACCESS, SHALL BE CONSTRUCTED TO A MINIMUM UNOBSTRUCTED WIDTH OF 20 FT. (PRIVABLE SURFACE).
7. ALL GATES TO BE ACCESSIBLE TO THE FIRE DEPARTMENT.
8. PROVIDE A KNOX BRAND KEY BOX AT LOCATION DIRECTED BY THE FIRE MARSHAL FOR EMERGENCY ACCESS TO THE BUILDING AND TENANT SPACES PER CFC 902.4.
9. THE TYPE OF FIRE EXTINGUISHER AND LOCATION TO BE APPROVED BY THE FIRE MARSHAL.
10. HAZARDOUS MATERIALS SIGNAGE ON BUILDING DOORS TO BE APPROVED BY THE FIRE MARSHAL.
11. PRIOR TO FINAL APPROVAL FOR OCCUPANCY A PERMIT FROM THE FIRE DEPARTMENT WILL BE REQUIRED FOR THE USE OF HAZARDOUS MATERIALS.
12. ALL REQUIRED FIRE ACCESS LANES SHALL BE PROVIDED AND MAINTAINED WITH AN APPROVED "ALL WEATHER" SURFACE CAPABLE OF SUPPORTING 80,000 LB. VEHICLES (MIN. 4" OF BASE ROCK, 6" COMPACTED OR UNDISTURBED NATIVE SOIL OR PER APPROVED ENGINEERING PLANS) YEAR-AROUND AND WITH 24" MIN. WIDTH OR OTHER APPROVED METHOD THAT WOULD PREVENT SHOULDER DEGRADATION.
13. ALL GATES ON "EMERGENCY ACCESS" ROADWAYS SHALL BE EQUIPPED WITH APPROVED POLICE/FIRE BYPASS LOCKS (BEST LOCKS, PADLOCK 21B700 SERIES OR CYLINDER LOCK 21B150). GATES/FENCES SHALL NOT OBSTRUCT THE MINIMUM WIDTH REQUIRED FOR FIRE LANES.
14. GATE TO REMAIN OPEN DURING THE HOURS OF OPERATION, AND TO BE SECURED AT ALL OTHER TIMES. A COPY OF THE KEY IS TO BE PROVIDED TO THE FIRE AND POLICE DEPARTMENTS FOR EMERGENCY ACCESS.
15. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE DEPARTMENT FOR THE INSTALLATION OR MODIFICATION OF FIRE ALARM SYSTEMS.
16. OBTAIN PERMIT FROM THE CLOVIS FIRE PREVENTION BUREAU (OVER THE COUNTER) FOR FIRE SPRINKLER ALARM SUPERVISION, SUPERVISION IS REQUIRED ON ALL FIRE SPRINKLER SYSTEMS. 2022 CFC, SECTION 903.4
17. BUILDING ADDRESS NUMBERS SHALL COMPLY WITH THE CLOVIS FIRE DEPARTMENT STANDARD L8
    A. BE A MINIMUM OF TWELVE INCHES (12") TALL.
    B. BE A MINIMUM OF ONE AND ONE-HALF INCHES (1½") PRINCIPAL STROKE WIDTH
    C. BE LOCATED ABOVE ANY EAVES OR WALKWAY COVERINGS, IF POSSIBLE
    D. FACE THE STREET IN WHICH IT IS ADDRESSED, IF POSSIBLE
    E. BUILDINGS WITH MULTIPLE UNITS SHALL BE IDENTIFIED WITH UNIT NUMBERS AT BOTH FRONT AND REAR ENTRANCES
    F. BUILDINGS WITH MULTIPLE ADDRESS NUMBERS SHALL ALSO HAVE THE ADDRESS NUMBERS ON THE REAR DOOR. (REAR DOOR NUMBERS ARE NOT REQUIRED TO BE ILLUMINATED IF REFLECTORIZED)
    G. UNIT NUMBERS AND REAR DOOR BUILDING NUMBERS SHALL BE AT LEAST FOUR INCHES (4") IN HEIGHT.

PARKING CALCULATIONS:

PARKING REQUIRED:
(4) STALLS PER 1,000 SQ. FT. ——— 10,000 SQ. FT. / 1,000 SQ. FT. = 10 x 4 = 40 STALLS REQUIRED

PROPOSED PARKING PROVIDED :

STANDARD :	58 STALLS
ACCESSIBLE :	4 STALLS
TOTAL :	62 STALLS

TOTAL BICYCLE PARKING REQUIRED :

SHORT TERM:
62 x 5% = 3 STALLS

LONG TERM:
62 x 5% = 3 STALLS

TOTAL BICYCLE PARKING PROVIDED :

SHORT TERM = 4 STALLS
LONG TERM = 3 STALLS - LONG TERM BIKE PARKING TO BE PROVIDED INSIDE OF BUILDINGS

TOTAL ELECTRIC VEHICLE CAPABLE PARKING SPACES REQUIRED: 60 PROPOSED STALLS = 13 STALLS REQUIRED (PER 2022 CALGREEN TABLE 5.106.5.3.3)

TOTAL ELECTRIC VEHICLE CAPABLE PARKING SPACES PROVIDED: 13 STALLS PROVIDED

TOTAL ELECTRIC VEHICLE CHARGING SPACES REQUIRED: 60 PROPOSED STALLS = 3 STALLS REQUIRED (PER 2022 CALGREEN TABLE 5.106.5.3.3) (1) OF THOSE (1) ELECTRIC VEHICLE CHARGING STALLS TO BE VAN ACCESSIBLE PER 2022 CBC TABLE 11B-228.3.2). AND 2 STALLS TO BE STRIPED AND SIGNED PER 2022 CBC 11B-812.5, 11B-812.10

TOTAL POSSIBLE FUTURE ELECTRIC VEHICLE CHARGING SPACES	STANDARD EV. CHARGING STALL : 1 STALL
	VAN ACCESSIBLE EV. CHARGING STALLS : 2 STALLS
	TOTAL ACCESSIBLE EV. CHARGING STALLS : 3 STALLS

RATIO OF PARKING SPACES TO FLOOR AREA: 161.2M SQ. FT. TO 1 STALL

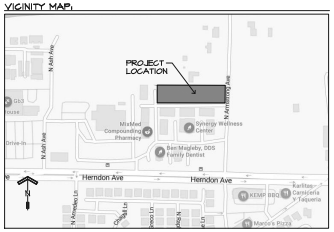
FIRE NOTES CONTINUED:

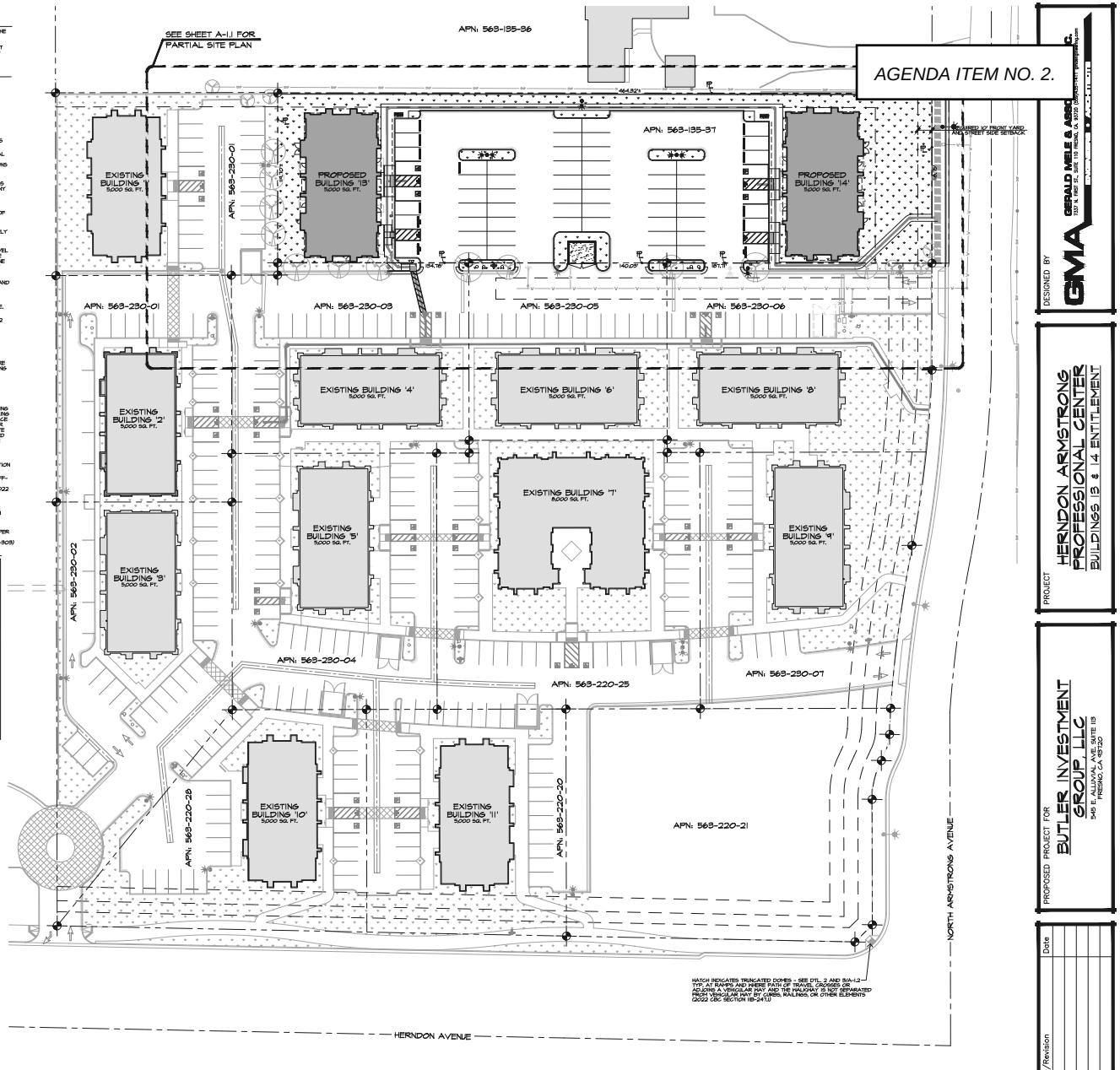
18. CONTACT THE CLOVIS FIRE DEPARTMENT AT 594-324-2218 TO SCHEDULE AN INSPECTION OF THE SITE PRIOR TO FRAMING OF THE FIRST BUILDING TO BE INSPECTED. IN THIS INSPECTION, THE CLOVIS FIRE DEPARTMENT MAY ALSO BE CONTACTED TO DO A WALK THROUGH OF THE SITE AT ANY TIME DURING CONSTRUCTION TO ENSURE THAT THE CONTRACTOR IS INSTALLING CONDITIONS THAT NEED TO BE ADDRESSED PRIOR TO RECEIVING A FINAL. THE APPROVAL OF THESE PLANS AND SPECIFICATIONS DOES NOT PERMIT THE VIOLATION OF ANY SECTION OF THE CALIFORNIA FIRE CODE, THE CALIFORNIA BUILDING CODE, THE MUNICIPAL CODE OR ANY ADOPTED STANDARDS.

ACCESSIBILITY NOTES :

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES, PUBLIC STREETS AND AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE. WHERE MORE THAN ONE ROUTE IS PROVIDED, ALL ROUTES MUST BE ACCESSIBLE (2022 CBC 11B-206.2.1)
2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE, UNLESS THE ONLY MEANS OF ACCESS BETWEEN THEM IS A VEHICULAR WAY NOT PROVIDING PEDESTRIAN ACCESS. (2022 CBC 11B-206.2.2)
3. ACCESSIBLE ROUTES SHALL COINCIDE WITH OR BE LOCATED IN THE SAME AREA AS GENERAL CIRCULATION PATHS. WHERE CIRCULATION PATHS ARE INTERIOR, REQUIRED ACCESSIBLE ROUTES SHALL ALSO BE INTERIOR. (2022 CBC 11B-206.3)
4. DIRECTIONAL SIGNS COMPLYING W/ 2022 CBC SECTION 11B-703.5, INCLUDING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING W/ 2022 CBC SECTION 11B-703.7.2.1, INDICATING THE ACCESSIBLE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE SHALL BE PROVIDED AT JUNCTIONS WHEN THE ACCESSIBLE ROUTE DIVERGES FROM THE REGULAR CIRCULATION PATH. (2022 CBC SECTION 11B-216.6)
5. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2%). WHEN THE SLOPE OF ANY WALKING SURFACE EXCEEDS 1:20 (5%), IT SHALL COMPLY WITH THE PROVISIONS OF 2022 CBC SECTION 11B-405. (2019 CBC SECTION 11B-403.3)
6. THE RUNNING SLOPE OF CURB RAMPS SHALL NOT BE STEEPER THAN 1:12 (8.33%) THE RUNNING SLOPE OF BLENDED TRANSITIONS SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF CURB RAMPS AND BLENDED TRANSITIONS SHALL BE 1:48 (2%) MAX. (2022 CBC SECTION 11B-406.2.1, 11B-406.3.1, 11B-406.4.1 AND 11B-406.5.1)
7. THE SURFACE OF EACH CURB RAMP AND ITS FLARED SIDES, WHERE APPLICABLE SHALL COMPLY WITH 2022 CBC SECTION 11B-302.1 FLOOR AND GROUND SURFACES. 11B-405.4 AND 11B-405.10. (2022 CBC SECTION 11B-406.5.4 AND 11B-406.5.5)
8. DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN, INCLUDING ANY FLARED SIDES AND BE LOCATED AT THE BASE, WHERE THE CURB RAMP RUN CONTACTS A STREET OR GUTTER. THE LONG SURFACE OF DETECTABLE WARNINGS SHALL TRANSITION BETWEEN CURB RAMP AND GUTTER, STREET OR HIGHWAY, OR PARALLEL. CURB RAMPS, DETECTABLE WARNINGS SHALL BE PLACED ON THE TURNING SPACE AT THE FLUSH TRANSITION BETWEEN STREET AND SIDEWALK. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES (SEE 2022 CBC SECTION 11B-705.1) AND FIGURE 11B-705.1) AND SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES. (2022 CBC SECTION 11B-406.5.2, 11B-705.1.3 AND 11B-705.1.2.1)
9. ACCESSIBLE PARKING SPACES SERVING A PARTICULAR BUILDING OR FACILITY SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM PARKING TO AN ACCESSIBLE ENTRANCE. (2022 CBC SECTION 11B-208.3.1)
10. PROVIDE THE APPROPRIATE NUMBER OF ACCESSIBLE PARKING SPACES AS REQUIRED BY 2022 CBC TABLE 11B-208.2.
11. ONE IN EVERY SIX ACCESSIBLE PARKING SPACES, BUT NOT LESS THAN ONE, SHALL BE SERVED BY AN ACCESS AISLE 96 INCHES WIDE MINIMUM PLACED ON THE SIDE OPPOSITE THE DRIVER'S SIDE WHEN THE VEHICLE IS BOING FORWARD INTO THE PARKING SPACE AND SHALL BE DESIGNATED "VAN ACCESSIBLE AS REQUIRED BY 2022 CBC SECTION 11B-502 (2022 CBC SECTION 11B-208.2.4)
12. PARKING SPACES AND ACCESS AISLES SHALL BE DESIGNED SO THAT PERSONS USING THEM ARE NOT REQUIRED TO TRAVEL BEHIND PARKING SPACES OTHER THAN TO PASS BEHIND THE PARKING SPACE IN WHICH THEY PARKED. (2022 CBC SECTION 11B-502.1)
13. THE MAXIMUM CROSS SLOPE IN ANY DIRECTION OF AN ACCESSIBLE PARKING SPACE OR THE ADJACENT ACCESS AISLE SHALL NOT EXCEED 1:48 (2%). (2022 CBC SECTION 11B-502.4)
14. PROVIDE THE FOLLOWING INFORMATION FOR ACCESSIBLE PARKING :
    A. EACH PARKING SPACE RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO THE PARKING SPACE OR WITHIN THE PROJECTED PARKING SPACE WIDTH AT THE HEAD END OF THE PARKING SPACE, OR PERMANENTLY POSTED ON A WALL AT THE INTERIOR END OF THE PARKING SPACE CONSISTING OF THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. ADDITIONAL SIGNAGE OR AND ADDITIONAL SIGN BELOW THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL STATE "MINIMUM FINE $250". SIGNS SHALL BE 60 INCHES MIN. ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN. SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE A MIN. OF 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN. (2022 CBC SECTION 11B-502.6)
    B. THE SURFACE OF EACH ACCESSIBLE SPACE SHALL HAVE A SURFACE IDENTIFICATION CONFLICTING WITH EITHER 2019 CBC SECTION 11B-502.8.4) OR 11B-502.8.4.2 (2022 CBC SECTION 11B-502.8.4)
    C. AN APPROVED SIGN TO BE POSTED IN CONSPICUOUS PLACE AT EACH ENTRANCE TO THE OFF-STREET PARKING FACILITY OR IMMEDIATELY ADJACENT TO ON-SITE ACCESSIBLE PARKING AND VISIBLE FROM EA. PARKING SPACE WHICH DISPLAYS THE TOW-AWAY WARNING PER 2022 CBC SECTION 11B-502.8.2. (2019 CBC SECTION 502.8)
15. ALL ACCESSIBLE PARKING STALLS SHALL BE MARKED WITH THE INTERNATIONAL SYMBOL OF SPACES AND A WARNING THAT VEHICLES IN VIOLATION OF THE CLOVIS MUNICIPAL CODE SHALL BE TOWED AWAY. THE INTERNATIONAL SYMBOL AND TOW-AWAY WARNING SHALL BE POSTED ON SEPARATE SIGNS OR SEVEN-FOOT POLES.
16. THRESHOLDS, IF PROVIDED AT DOORWAYS, SHALL BE ½ INCH HIGH MAX. CHANGE IN LEVEL BETWEEN ¼ INCH HIGH MIN. AND ½ INCH HIGH MAX. SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2 (50%). CHANGE IN LEVEL GREATER THAN ½ INCH HIGH SHALL BE RAMPED, AND SHALL COMPLY WITH 2019 CBC SECTION 11B-405 OR 11B-406. (2022 CBC SECTION 11B-404.2.5 AND 11B-303)

VICINITY MAP:





LEGEND :
- PROPOSED
- EXISTING
- PROPERTY LINE
- PROPOSED LANDSCAPING SEE LANDSCAPE PLAN
- EXISTING LANDSCAPING

MASTER SITE DEVELOPMENT PLAN

Attachment 2

DESIGNED BY
GERALD MELE & ASSOCIATES, INC.
2337 N. FIRST ST., SUITE 110 FRESNO, CA. 93703 (559)431-1111 gmainc@sbcglobal.net

PROJECT
HERNDON ARMSTRONG PROFESSIONAL CENTER
BUILDINGS 13 & 14 ENTITLEMENT

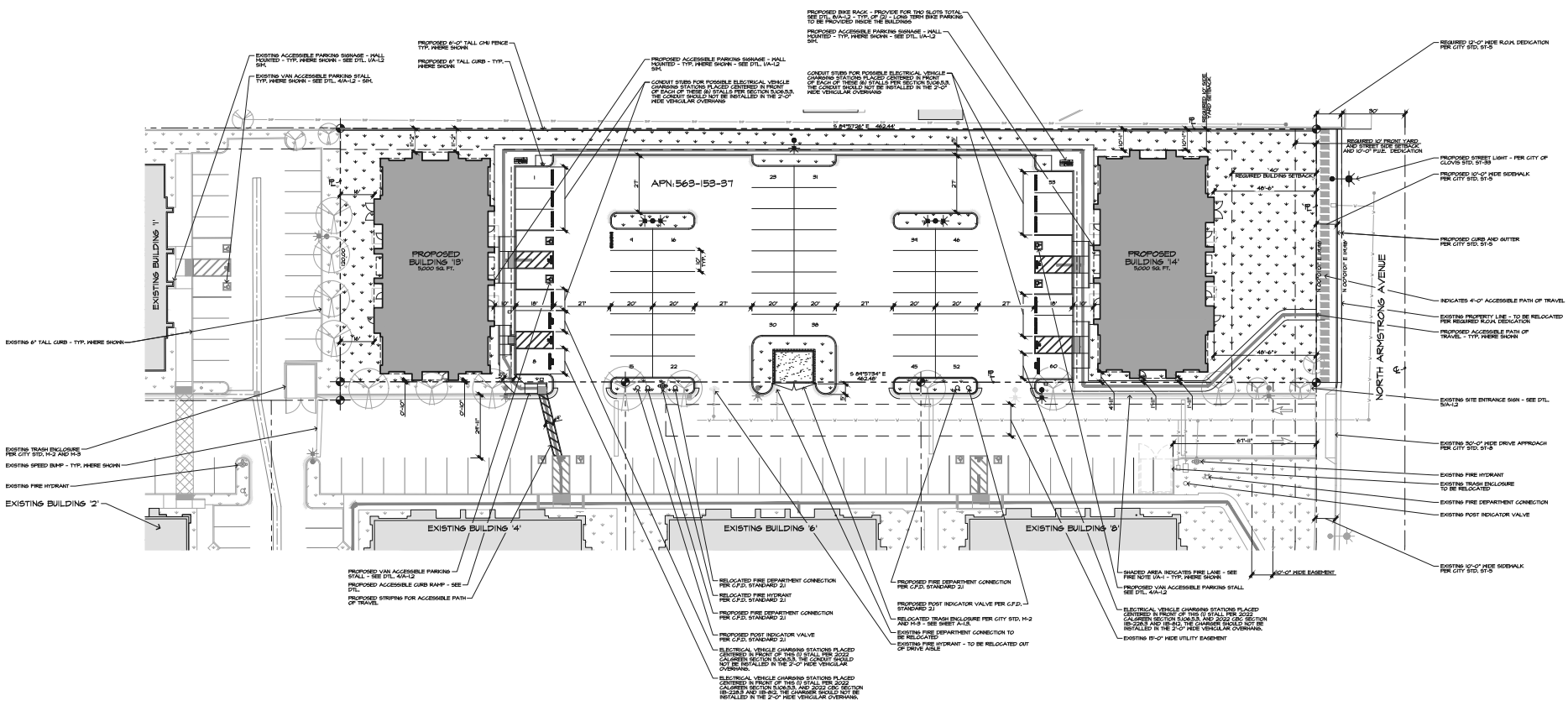
PROPOSED PROJECT FOR
BUTLER INVESTMENT GROUP, LLC
345 E. ALLUVIAL AVE, SUITE 113
FRESNO, CA 93720

No.	Issue/Revision	Date

Date	12/20/23
Scale	1" = 30'-0"
Dr.By	N. MOHAMMED
Job No.	2023.220
Dwg.No.	23220MSD
Sheet	A-1
Revision No.	

© GERALD A. MELE & ASSOCIATES, INC. 2023

AGENDA ITEM NO. 2.



LEGEND :

- PROPOSED
- EXISTING
- PROPERTY LINE
- PROPOSED LANDSCAPING SEE LANDSCAPE PLAN
- EXISTING LANDSCAPING

N

PARTIAL SITE PLAN

© GERALD A. MELE & ASSOCIATES, INC. 2023

DESIGNED BY
GMA GERALD MELE & ASSOCIATES, INC.
7337 N. First St., Suite 105 Fresno, CA 93720 (559)431-1111 gmaarch@sbcglobal.net

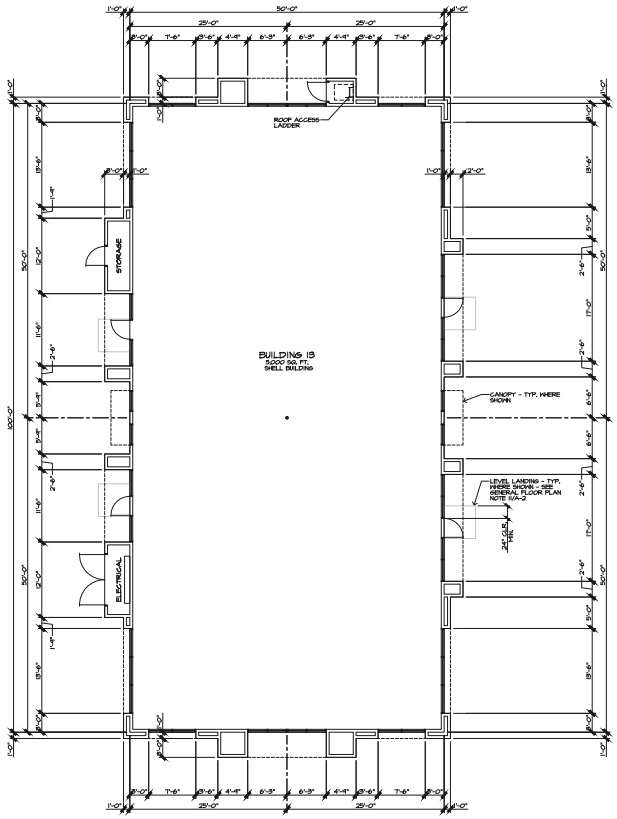
PROJECT
HERNDON ARMSTRONG PROFESSIONAL CENTER
BUILDINGS 13 & 14 ENTITLEMENT

PROPOSED PROJECT FOR
BUTLER INVESTMENT GROUP LLC
345 E. ALLUVIAL AVE. SUITE 119 FRESNO, CA 93720

No.	Issue/Revision	Date

Date	12/20/23
Scale	1" = 20'-0"
Dr.By	N. MOHAMMED
Job No.	2023.220
Dwg.No.	23220PSP
Sheet	A-1.1
Revision No.	

AGENDA ITEM NO. 2.



GENERAL FLOOR PLAN NOTES :

1. SEE SHEET A-6 FOR DOOR AND GLAZING CODE REQUIREMENTS.
2. PROVIDE INTERNATIONAL SYMBOL OF ACCESSIBILITY DECAL) AT MAIN ENTRANCE DOOR (5" SQ.).
3. CONTRACTOR TO VERIFY ROUGH OPENING SIZES FOR ALL DOORS AND WINDOWS, AND COORDINATE WITH SUPPLIER PRIOR TO FABRICATION.
4. USE MINIMUM 60" X 60" LANDING AT ALL EXTERIOR DOORS SWINGING ONTO A LANDING AND A 48" X 48" LANDING AT A DOOR THAT SWINGS AWAY FROM LANDING. DOOR LANDING SHALL HAVE A SURFACE THAT IS STABLE, FIRM, AND SLIP RESISTANT. SLOPE AT LANDING TO BE 1/4" PER FOOT MAX. IN ANY DIRECTION. LANDING SHALL BE AT THE SAME HEIGHT AS THE FINISH FLOOR. MAX. CHANGE IN LEVEL AT FLOOR TRANSITIONS AND AT DOORS PERMITTED: 0.25", 2022 SECTION 1B-404.2.2.4, 1B-302 AND 1B-303) EXTERIOR DOOR LANDING TO HAVE A MINIMUM 24" OF MANEUVERING SPACE EXTENDING FROM THE DOOR LATCH SIDE WHERE THE DOOR SWINGS EXIT (CBC 2022 TABLE 1B-404.2.4.1).
5. COORDINATE ROOM FINISHES w/ OWNER.
6. PROVIDE MINIMUM 5A-10BC PORTABLE FIRE EXTINGUISHERS, PER CFC 2022 SECTION 906.3(1), SPACED FOR NOT MORE THAN 75,000 SQ. FT. OF PROTECTION THEREOF, WITH TRAVEL DISTANCE NOT TO EXCEED 75 FT. FROM ANY POINT TO A FIRE EXTINGUISHER.
7. INTERNATIONAL "NO SMOKING" SYMBOL IN RED OR 1 INCH HIGH LETTERS SAYING "NO SMOKING". THE SIGN SHALL BE A MINIMUM OF 4 INCHES WIDE BY 4 INCHES IN SIZE AND LOCATED SIX INCHES ABOVE THE FINISHED FLOOR.
8. SIGNS WITH RAISED CHARACTERS AND BRAILLE SHALL BE LOCATED 48" MINIMUM ABOVE THE FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST LINE OF BRAILLE AND 60" MAXIMUM ABOVE THE FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS (CBC 2022 SECTION 1B-703.4.1). A SIGN SHALL BE POSITIONED SO A PERSON MAY APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF THE DOOR. (CBC 1B-703.4.1)
9. THE COLOR AND DESIGN OF LETTERING, ARROWS AND OTHER SYMBOLS ON EXIT SIGNS SHALL BE IN HIGH CONTRAST WITH THE BACKGROUND AND SHALL BE EITHER WHITE IN BLACK LETTERS 6" IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN 3/4", SIGNS SHALL BE INTERNALLY ILLUMINATED OR SHALL BE OF AN APPROVED SELF-LUMINOUS TYPE WHEN THE LUMINANCE ON THE FACE OF AN EXIT SIGN IS FROM AN EXTERNAL SOURCE IT SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT-CANDLES (53.8 LUX). WHEN ILLUMINATED, AND, INTERNALLY ILLUMINATED SIGNS SHALL PROVIDE EQUIVALENT LUMINANCE, MIN. 90 MINUTE BACK-UP POWER REQUIRED.
10. THE PATH OF TRAVEL, TO ANY EXIT SHALL NOT BE BLOCKED. (2022 CBC SECTION 1003.6)
11. OCCUPANT LOAD SIGNAGE TO BE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM EACH ROOM OR SPACE INTENDED FOR OCCUPANCY. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR THE OWNER'S AUTHORIZED AGENT.

LEGEND :

2x6 WOOD STUD WALL w/ STUCCO EXTERIOR

N

BUILDING COORDINATION PLAN
BUILDING 13

© GERALD A. MELE & ASSOCIATES, INC. 2023

DESIGNED BY
GMA GERALD MELE & ASSOC. INC.
7337 N. First St., Suite 110 Fresno, Ca. 93720 (559)431-1111 gmaarch@sbcglobal.net

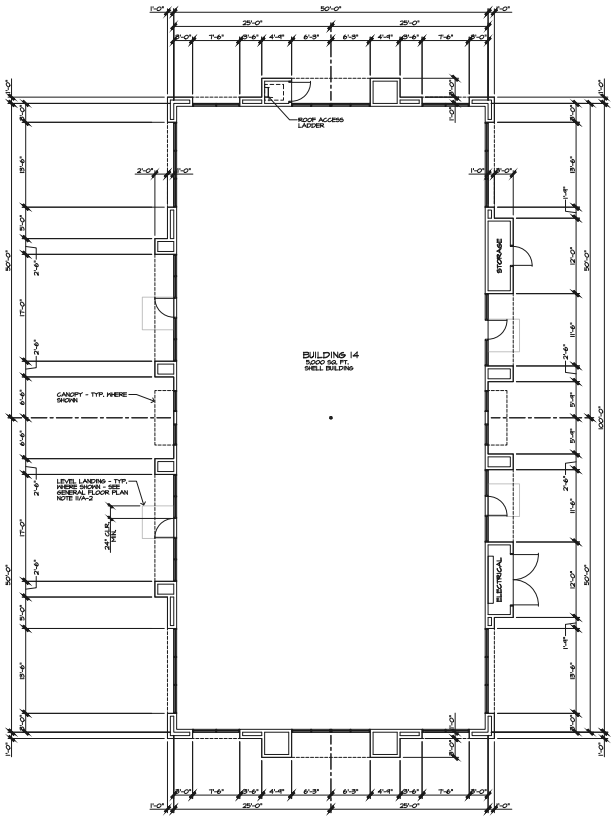
PROJECT
HERNDON ARMSTRONG PROFESSIONAL CENTER
BUILDINGS 13 & 14 ENTITLEMENT

PROPOSED PROJECT FOR
BUTLER INVESTMENT GROUP, LLC
345 E. ALLUVIAL AVE. SUITE 113
FRESNO, CA 93720

No.	Issue/Revision	Date

Date	12/20/23
Scale	1/8" = 1'-0"
Dr.By	N. MOHAMMED
Job No.	2023.220
Dwg.No.	23220BCP
Sheet	A-2
Revision No.	

AGENDA ITEM NO. 2.

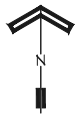


GENERAL FLOOR PLAN NOTES :

1. SEE SHEET A-0 FOR DOOR AND GLAZING CODE REQUIREMENTS.
2. PROVIDE INTERNATIONAL SYMBOL OF ACCESSIBILITY DECAL AT MAIN ENTRANCE DOOR (5" SQ.).
3. CONTRACTOR TO VERIFY ROUGH OPENING SIZES FOR ALL DOORS AND WINDOWS, AND COORDINATE WITH SUPPLIER PRIOR TO FABRICATION.
4. USE MINIMUM 60" X 60" LANDING AT ALL EXTERIOR DOORS SWINGING ONTO A LANDING AND A 48" X 48" LANDING AT A DOOR THAT SWINGS AWAY FROM LANDING. DOOR LANDINGS SHALL HAVE A SURFACE THAT IS STABLE, FIRM AND SLIP RESISTANT. SLOPE AT LANDING TO BE 1/4" PER FOOT MAX. IN ANY DIRECTION. THRESHOLDS SHALL BE 1/2" MAX. HEIGHT. 3/4" HIGH MAX. CHANGE IN LEVEL AT FLOOR TRANSITIONS IS ALLOWED IF PERMITTED. (CBC 2022 SECTION 1B-404.2.2.4, 1B-302 AND 1B-303) EXTERIOR DOOR LANDING TO HAVE A MINIMUM 24" OF HARDSURFACING OR EQ. EXTENDING FROM THE DOOR LATCH SIDE WHERE THE DOOR SWINGS OUT. (CBC 2022 TABLE 1B-404.2.4.1).
5. COORDINATE ROOF FINISHES w/ OWNER.
6. PROVIDE MINIMUM 2A-10B-C PORTABLE FIRE EXTINGUISHERS, PER CFC 906.3, SO THAT THE MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER OR FIRE-EXTINGUISHER CABINET WITH TRAVEL DISTANCE NOT TO EXCEED 75 FT. FROM ANY POINT TO A FIRE EXTINGUISHER.
7. INTERNATIONAL "NO SMOKING" SYMBOL IN RED OR 1 INCH HIGH LETTERS SAYING "NO SMOKING". THE SIGN SHALL BE A MINIMUM OF 2 INCHES IN WIDTH AND 2 INCHES IN SIZE AND LOCATED 60 INCHES ABOVE THE FINISHED FLOOR.
8. SIGNS WITH RAISED CHARACTERS AND BRAILLE SHALL BE LOCATED 48" MINIMUM ABOVE THE FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST LINE OF BRAILLE AND 60" MAXIMUM ABOVE THE FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS (CBC 1B-703.4.1) EXCEPTION: SIGNS WHERE A PERSON MAY APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF THE DOOR. (CBC 1B-703.4.1)
9. THE COLOR AND DESIGN OF LETTERING, ARROWS AND OTHER SYMBOLS ON EXIT SIGNS SHALL BE IN HIGH CONTRAST WITH THE BACKGROUND. LETTERS ON EXIT SIGNS SHALL BE IN BLOCK LETTERS 6" IN HEIGHT WITH A MINIMUM STROKE OF NOT LESS THAN 3/4". SIGNS SHALL BE INTERNALLY ILLUMINATED OR SHALL BE OF AN APPROVED SELF-LUMINOUS TYPE WHEN THE LUMINANCE ON THE FACE OF AN EXIT SIGN IS FROM AN EXTERNAL SOURCE IT SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT-CANDLES (53.82 LUX). WHEN INTERNALLY LIGHTED, EXTERNALLY ILLUMINATED SIGNS SHALL PROVIDE EQUIVALENT LUMINANCE, MIN. 90 MINUTE BACK-UP POWER REQUIRED.
10. THE PATH OF TRAVEL TO ANY EXIT SHALL NOT BE BLOCKED. (2022 CBC SECTION 1009.8)
11. OCCUPANT LOAD SIGNAGE TO BE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM EACH ROOM OR SPACE INTENDED FOR OCCUPANCY. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR THE OWNER'S AUTHORIZED AGENT.

LEGEND :

2x6 WOOD STUD WALL w/ STUCCO EXTERIOR



BUILDING COORDINATION PLAN
BUILDING 14

© GERALD A. MELE & ASSOCIATES, INC. 2023

DESIGNED BY
GMA
GERALD MELE & ASSOCIATES, INC.
7337 N. FIRST ST., SUITE 110 FRESNO, CA. 93720 (559)431-1111 gmaarch@sbcglobal.net

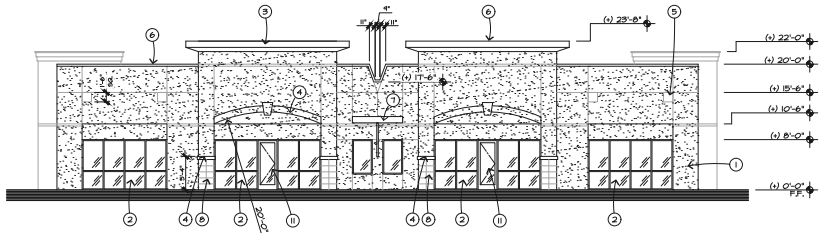
PROJECT
HERNDON ARMSTRONG PROFESSIONAL CENTER
BUILDINGS 13 & 14 ENTITLEMENT

PROPOSED PROJECT FOR
BUTLER INVESTMENT GROUP, LLC
545 E. ALLUVIAL AVE. SUITE 119
FRESNO, CA 93720

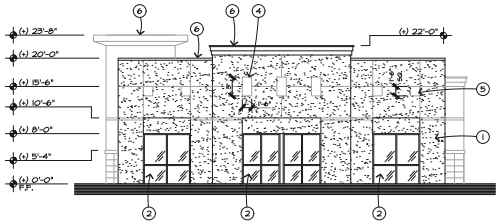
No.	Issue/Revision	Date

Date	12/20/23
Scale	1/8" = 1'-0"
Dr.By	N. MOHAMMED
Job No.	2023.220
Dwg.No.	23220BCP
Sheet	A-2.1
Revision No.	

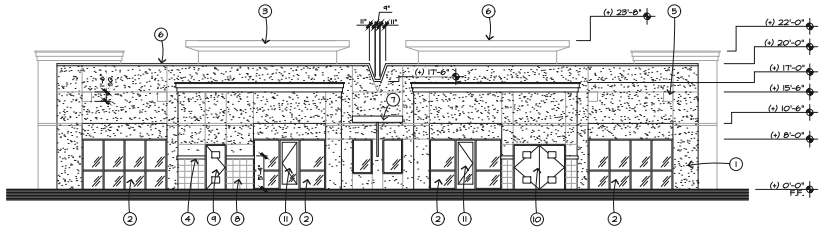
AGENDA ITEM NO. 2.



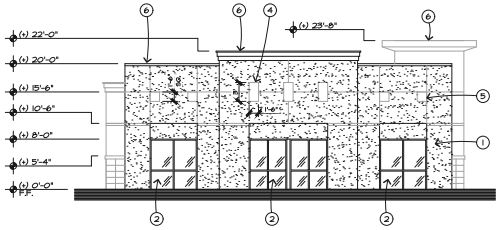
EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION



SOUTH ELEVATION

EXTERIOR MATERIAL LIST:

MARK	DESCRIPTION
1	STUCCO FINISH
2	ALUMINUM STOREFRONT SYSTEM WITH CLEAR ANODIZED MULLIONS AND GREY TINTED GLASS
3	EIFS CORNICE
4	EIFS TRIM
5	SLATE TILE ACCENT
6	20 GAGE GSM PARAPET CAP
7	METAL CANOPY SHADE ELEMENT
8	SLATE TILE WAINSCOT
9	3'-0" x 7'-0" HOLLOW METAL DOOR
10	(2) 4'-0" x 7'-0" HOLLOW METAL DOORS
11	3'-0" x 7'-10" STOREFRONT DOOR WITH TEMPERED GLASS AND 10" HIGH KICK PANEL AT BOTTOM

EXTERIOR ELEVATIONS
BUILDING 13

© GERALD A. MELE & ASSOCIATES, INC. 2023

DESIGNED BY
GMA GERALD MELE & ASSOC. INC.
1337 N. FIRST ST., SUITE 110 FRESNO, CA. 93703 (559) 431-1111

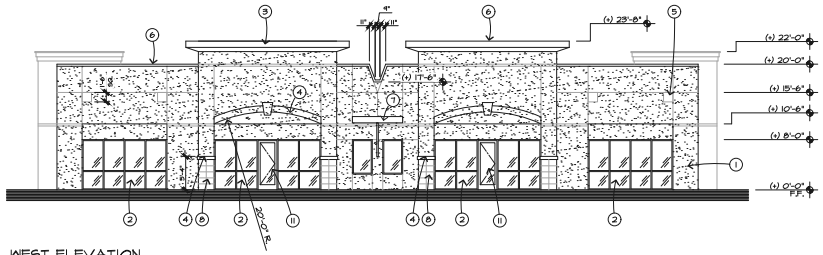
PROJECT
HERNDON ARMSTRONG PROFESSIONAL CENTER
BUILDINGS 13 & 14 ENTITLEMENT

PROPOSED PROJECT FOR
BUTLER INVESTMENT GROUP LLC
345 E. ALLUVIAL AVE. SUITE 119
FRESNO, CA 93720

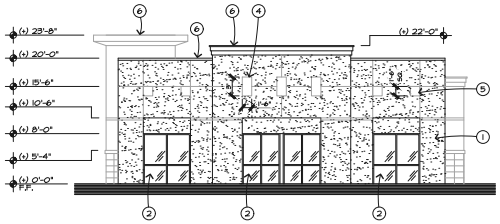
No.	Issue/Revision	Date

Date	12/20/23
Scale	1/8" = 1'-0"
Dr.By	N. MOHAMMED
Job No.	2023.220
Dwg.No.	23220ELV
Sheet	A-3
Revision No.	

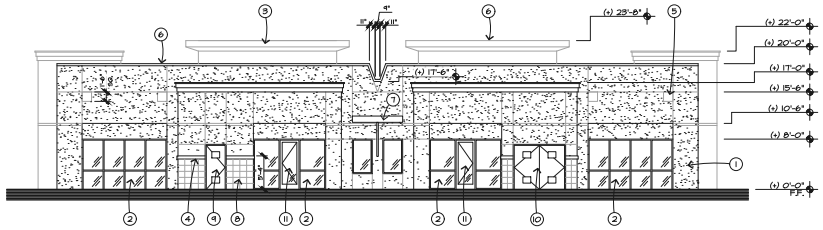
AGENDA ITEM NO. 2.



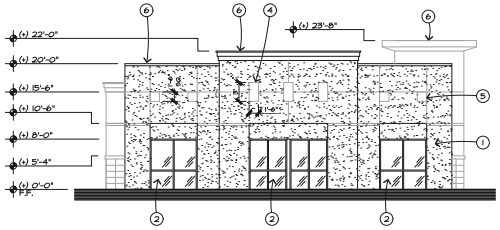
WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

EXTERIOR MATERIAL LIST:

MARK	DESCRIPTION
1	STUCCO FINISH
2	ALUMINUM STOREFRONT SYSTEM WITH CLEAR ANODIZED MULLIONS AND GREY TINTED GLASS
3	EIFS CORNICE
4	EIFS TRIM
5	SLATE TILE ACCENT
6	20 GAGE GSM PARAPET CAP
7	METAL CANOPY SHADE ELEMENT
8	SLATE TILE WAINSCOT
9	3'-0" x 7'-0" HOLLOW METAL DOOR
10	(2) 4'-0" x 7'-0" HOLLOW METAL DOORS
11	3'-0" x 7'-10" STOREFRONT DOOR WITH TEMPERED GLASS AND 10" HIGH KICK PANEL AT BOTTOM

EXTERIOR ELEVATIONS
BUILDING 14

© GERALD A. MELE & ASSOCIATES, INC. 2023

DESIGNED BY
GMA
GERALD MELE & ASSOCIATES, INC.
1337 N. FIRST ST., SUITE 110 FRESNO, CA. 93703 (559)431-1111 gmaarch@sbcglobal.net

PROJECT
HERNDON ARMSTRONG PROFESSIONAL CENTER
BUILDINGS 13 & 14 ENTITLEMENT

PROPOSED PROJECT FOR
BUTLER INVESTMENT GROUP LLC
345 E. ALLUVIAL AVE. SUITE 119
FRESNO, CA 93720

No.	Issue/Revision	Date

Date	12/20/23
Scale	1/8" = 1'-0"
Dr.By	N. MOHAMMED
Job No.	2023.220
Dwg.No.	23220ELV
Sheet	A-3.1
Revision No.	

2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

February 28, 2024

Marissa Jensen
Planning and Development Services Dept.
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Rezone 2024-001
N/W Herndon and Armstrong avenues

Dear Ms. Jensen:

The Fresno Irrigation District (FID) has reviewed Rezone 2024-001 for which the applicant requests to rezone approximately 1.30 acres from R-1 7500 to C-P, APN: 563-135-37. This application is being processed concurrently with SPR2024-001 FID has the following comments:

1. FID previously reviewed and commented on the subject property on December 7, 2023, as Development Review Committee Application No. 2023-048. Those comments and conditions still apply and a copy has been attached for your review.

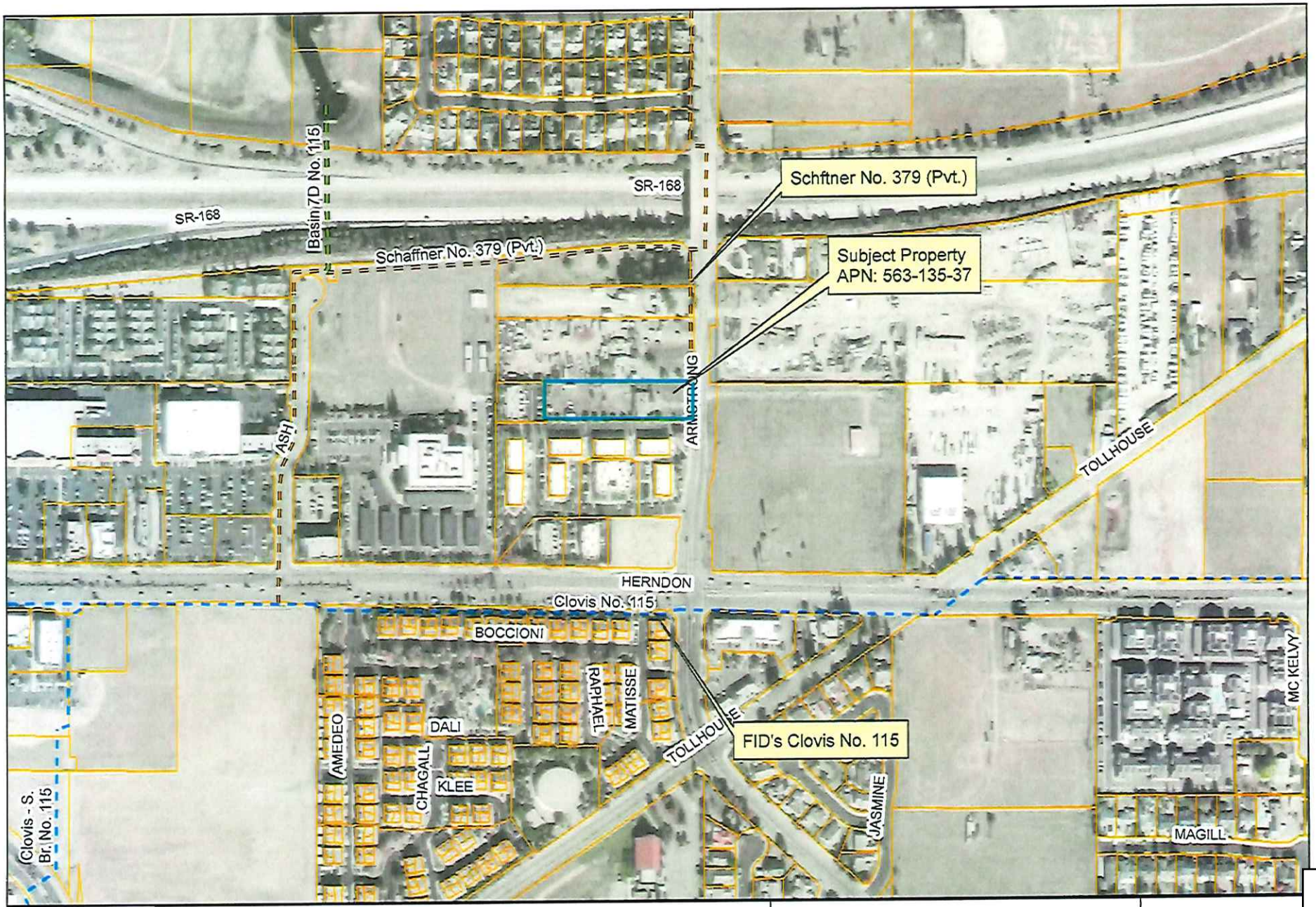
Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Jeremy Landrith at (559) 233-7161 extension 7407 or jlandrith@fresnoirrigation.com.

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment

BOARD OF DIRECTORS President RYAN JACOBSEN Vice-President JERRY PRIETO, JR. CHRISTOPHER WOO
GEORGE PORTER GREGORY BEBERIAN General Manager BILL STRETCH



FRESNO IRRIGATION DISTRICT

Legend

- FID Canal
- Private Canal
- Abandoned Canal
- FID Pipeline
- Private Pipeline
- Abandoned Pipeline
- Stream Group
- Other-Creek\River
- Other-Pipeline
- FID Boundary
- Railroad
- Streets & Hwys
- Parcel
- FMFCD Acquired Basins
- FMFCD Proposed Basins

This map was produced by the Fresno Irrigation District and is provided for reference and informational purposes only and is not intended to show map scale accuracy or all inclusive map features, nor for legal purposes. FID makes no statements regarding the accuracy of this map as the features shown are in their approximate location. Please contact the FID Engineering Dept. at (559) 233-7161 for further information on FID facilities.

Path: G:\Fidgis\20230727 FID Master.mxd
Spatial Reference
Name: NAD 1983 StatePlane California IV FIPS 0404

0 200 400
Feet
1 inch = 399.88 feet

AGENDA ITEM NO. 2.

Fresno Metropolitan Flood Control District

Capturing Stormwater since 1956

File 210.432 "2024-001"
210.434 "2024-001"
310. "7D"

March 1, 2024

Ms. Marissa Jensen, Assistant Planner
City of Clovis
Department of Planning & Development Services
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Jensen,

Rezone Application No. R2024-001
West Side of Armstrong Avenue North of Herndon Avenue
Drainage Area "7D"

The proposed rezone lies within the District's Drainage Areas "7D". Based on information submitted at this time, the District's system can accommodate the proposed rezone.

Please contact us if you need further information at (559) 456-3292.

Sincerely,

Robert Villalobos
Design Technician III

RV/lrl

k:\letters\rezone letters\clovis\2024\2024-001(7d)(rv).docx

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

February 28, 2024

Marissa Jensen
City of Clovis
Planning and Development Services
1033 Fifth Street
Clovis, CA 93612

Project: Site Plan Review 2024-001, Rezone 2024-001

District CEQA Reference No: 20240171

Dear Ms. Jensen,

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Site Plan Review (SPR) from the City of Clovis (City). Per the SPR, the project consists of two (2) 5,000 square foot shell office buildings and a rezone of 1.3 acres (Project). The Project is located at the northwest corner of Herndon and Armstrong, Clovis.

The District offers the following comments at this time regarding the Project:

1) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM2.5) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 standards.

Based on information provided to the District, Project specific annual criteria pollutant emissions from construction and operation are not expected to exceed any of the significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI): https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

2) Health Risk Screening/Assessment

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):
A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

Health Risk Assessment:
Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here: https://ww2.valleyair.org/permitting/cega/.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambien Air Quality Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website: https://ww2.valleyair.org/permitting/cega/.

4) Vegetative Barriers and Urban Greening

There are residential units located north and south and medical offices located south and west of the Project. The District suggests the City consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residential units and medical offices).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the update of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant, low-maintenance greenery.

5) Clean Lawn and Garden Equipment in the Community

Since the Project consists of commercial development, gas-powered commercial lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/.

6) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

7) Electric Infrastructure

To support and accelerate the installation of electric vehicle charging equipment and development of required infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District recommends that the City and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit www.valleyair.org/grants/chargeup.htm for more information.

8) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

8a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District

permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

8b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 2,000 square feet of commercial space.

The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design.

Information about how to comply with District Rule 9510 can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview

The AIA application form can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/

District staff is available to provide assistance and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

8c) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule

4002 can be found online at: https://ww2.valleyair.org/compliance/demolition-renovation/

8d) District Rule 4601 (Architectural Coatings)

The Project may be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf

8e) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.*

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at: https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx

Information about District Regulation VIII can be found online at: https://ww2.valleyair.org/dustcontrol

8f) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

9) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Ryan Grossman by e-mail at Ryan.grossman@valleyair.org or by phone at (559) 230-6569.

Sincerely,

Brian Clements
Director of Permit Services

For: Mark Montelongo
Program Manager

CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: April 18, 2024

SUBJECT: Consider items associated with approximately 246 acres of land located southwest of the intersection of Behymer Avenue and the Sunnyside Avenue alignment, within the Heritage Grove Urban Center. Great Bigland LP., owner; Wilson Premier Homes, Inc., applicant; Harbour and Associates, representative.

a) Consider Approval - Res. 24-__, A resolution recommending that the City Council: (1) certify the Final Environmental Impact Report for the TM6343 Project; (2) adopt CEQA Findings of Fact and a Statement of Overriding Consideration; and (3) adopt a Mitigation Monitoring and Reporting Program.

b) Consider Approval – Res. 24-__, GPA2021-003, A resolution recommending that the City Council approve a request to amend the land use element of the General Plan for the Development Area (approximately 71.54 acres) from the Medium Density land use designation to the Medium High Density land use designation.

c) Consider Approval - Res. 24-__, R2021-006, A resolution recommending that the City Council approve a request to prezone the properties within the annexation area (246 acres) from the Fresno County AE-20 Zone District to the Clovis O, P-F, R-A, R-1, and R-1-PRD Zone Districts.

d) Consider Approval - Res. 24-__, TM6343, A resolution recommending that the City Council approve a vesting tentative tract map for a 590-lot single-family planned residential.

e) Consider Approval - Res. 24-___, PDP2021-001, A resolution recommending that the City Council approve a request to approve a planned development permit for a 590-lot single-family residential development.

Staff: Lily Cha, Senior Planner
Recommendation: Approve

ATTACHMENTS:
1. Draft Resolution CEQA
2. Draft Resolution GPA2021-003
3. Draft Resolution R2021-006
4. Draft Resolution TM6343
5. Draft Resolution PDP2021-001
6. Applicant's Justification for GPA2021-003
7. Proposed Development Standards for PDP2021-001
8. Proposed Amenities
9. Floor Plan & Elevations
10. Initial Study
11. Draft Environmental Impact Report
12. Final Environmental Impact Report
13. Correspondence from Commenting Agencies

CONFLICT OF INTEREST
None.

RECOMMENDATION
Staff recommends that the Planning Commission adopt resolutions recommending that the City Council approve each component of the Project as identified in the title.

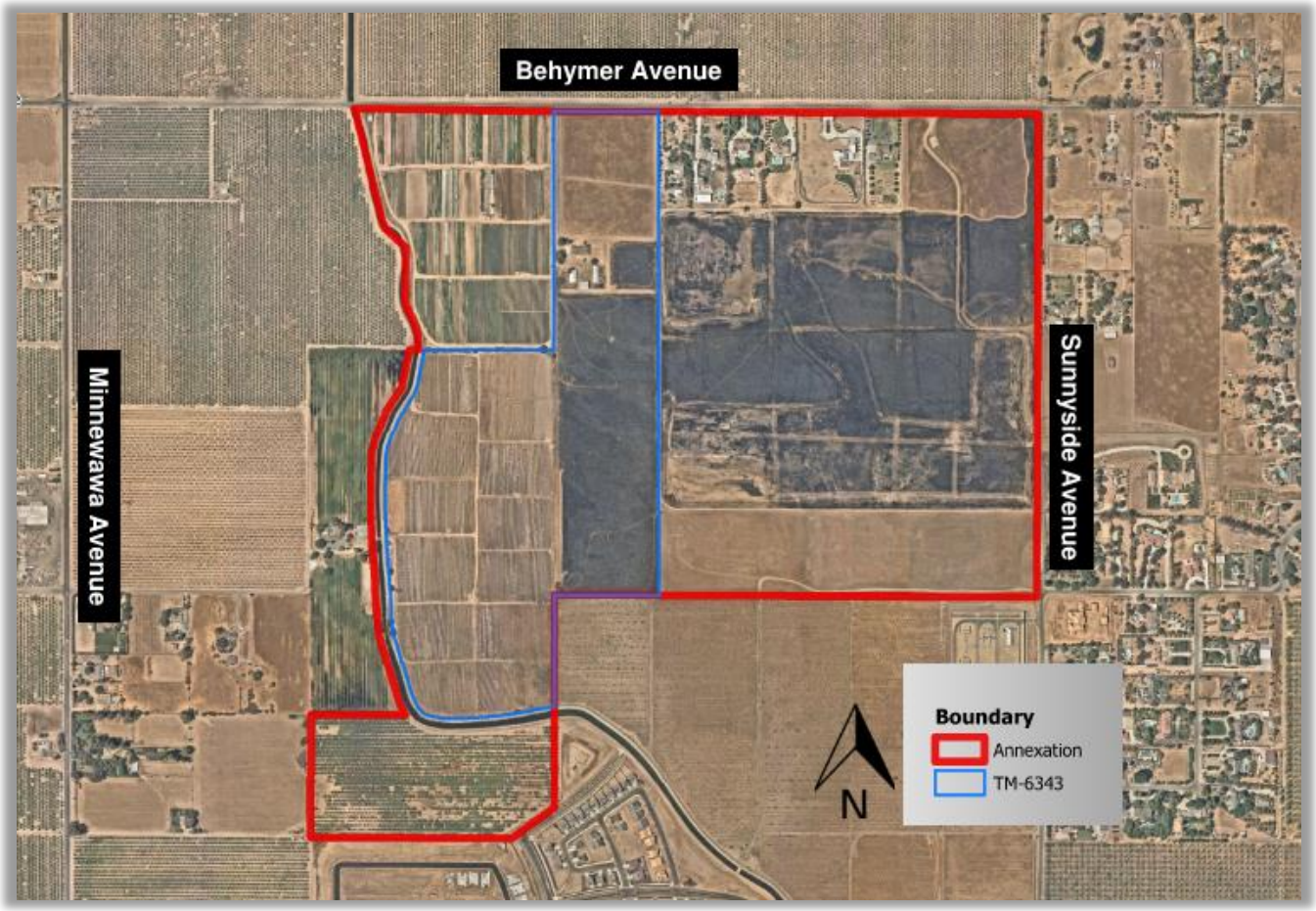
EXECUTIVE SUMMARY
Wilson Premier Homes, Inc., the applicant, seeks approval for the TM6343 Project, herein referred to as "Project." This Project is designed as a 590-lot planned single-family development on 71.54 acres of property in the City's Heritage Grove planned growth area. The Project site is a portion of the larger 246-acre annexation area required of the Project. The Project requires a series of entitlement applications, one of which is an annexation to be reviewed by the City Council. Additional required applications include a general plan amendment, prezone, a planned development permit, and a vesting tentative tract map. Approval of this Project would enable the developer to proceed with the processing of a residential site plan review entitlement and development drawings.

BACKGROUND
- General Plan Designation: Medium Density Residential (4.1-7 DU/Ac)
- Existing Zoning: Fresno County AE20 Zone District
- Lot Size: Approximately 71.54 Acres (Annexation are - 246 acres)
- Current Land Use: Agricultural
- Adjacent Land Uses:
    - North: Agricultural
    - South: Single-Family Residential
    - East: Rural Residential and Water Basin
    - West: Rural Residential and Agricultural

PROPOSAL AND ANALYSIS

This Project is a 590-lot planned single-family development on 71.54 acres of property in the City's Heritage Grove planned growth area. The Project site is a portion of the larger 246-acre annexation area required of the Project. As depicted in Figure 1 below, the Project site and annexation area is located in the southwest area of Behymer Avenue and the Sunnyside Avenue alignment. The Project entails several entitlement applications, including an annexation which will undergo review by the City Council. Additional required applications involve a general plan amendment, prezone, a permit for planned development, and a vesting tentative tract map. The following sections analyze each entitlement request and provide findings in support.

FIGURE 1 – Project Area



Annexation

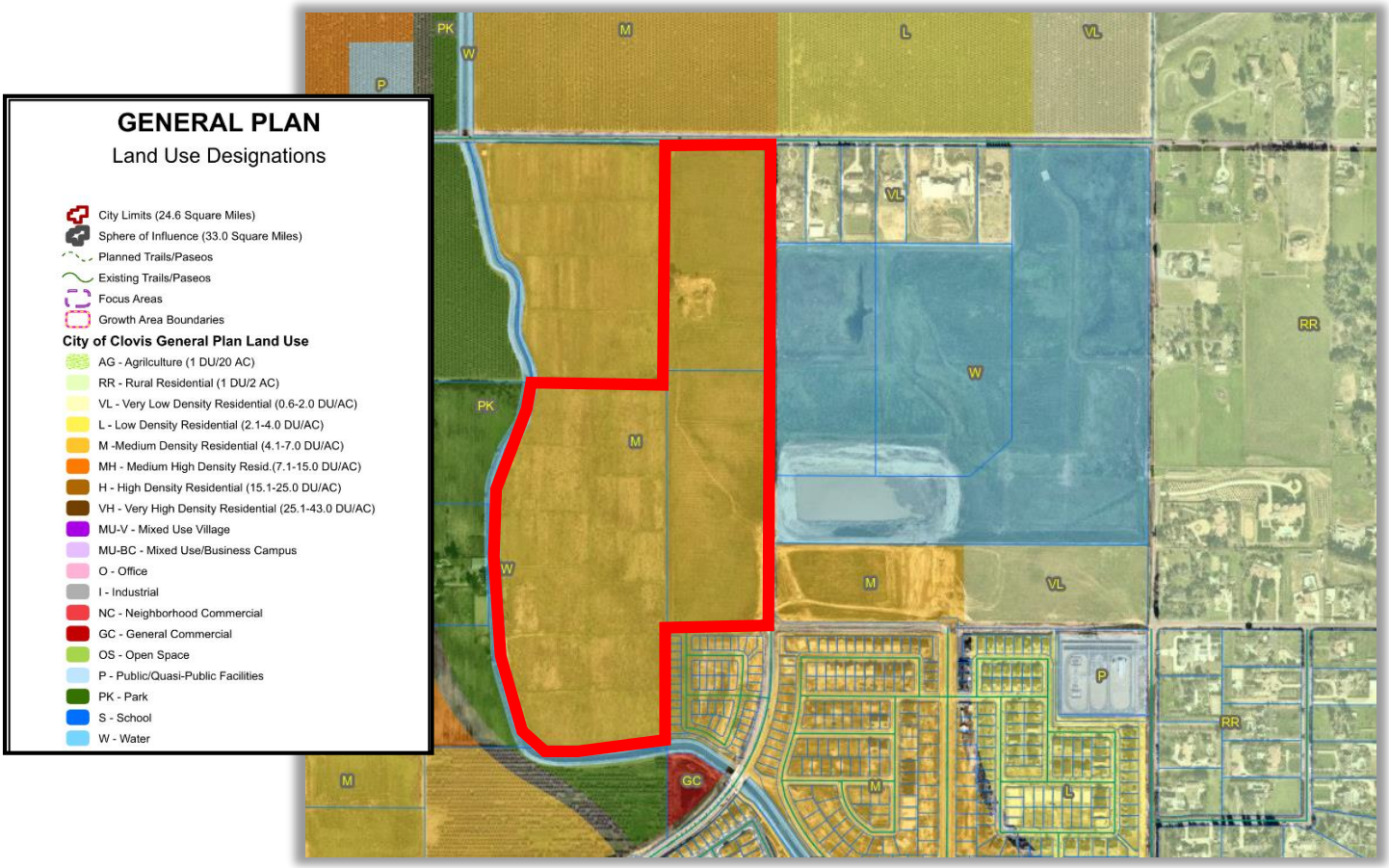
The Project site is situated within the City's Heritage Grove planned growth area and requires annexation into the City. While the Project site encompasses approximately 71.54 acres, a larger annexation area is proposed after consultation with LAFCO staff to establish a logical boundary for incorporation. In addition to the 71.54 development area, the proposed annexation boundary includes properties planned for future residential development at similar densities, six rural residential properties along Perrin Avenue, and an approximately 84 acre flood control basin

owned by the Fresno Metropolitan Flood Control District. The annexation application will undergo consideration by the City Council and, if approved, will proceed to the Fresno Local Agency Formation Commission (LAFCo) for processing and final consideration. Development of the Project cannot occur without the completion of the annexation process.

General Plan Amendment GPA2021-003

The 71.54 acre Project site is currently designated as Medium Density Residential (4.1-7.0 DU/Ac) in the City's General Plan land use diagram. This designation mandates that development must adhere to single-family residential types and fall within the density range of 4.1 to 7.0 dwelling units per acre. Consequently, the Project is restricted to developing no fewer than 293 units and no more than 501 units. However, the applicant seeks to amend the City's General Plan land use diagram by proposing a change to the Project site's designation to Medium High Density Residential (7.1-15.0 DU/Ac). This designation would allow for the development of between 508 and 1,073 units. The proposed Project, aiming for a development of 590 units, aligns with the lower end of the density range permitted under the Medium High Density Residential designation.

FIGURE 2 – General Plan Designation



General Plan Required Findings and Analysis

In order to approve an amendment to the General Plan, specific findings must be made. Those include the following:

1. The proposed amendment is internally consistent with the goals, policies, and actions of the General Plan;

   The proposed amendment aligns internally with the outlined goals, policies, and actions of the General Plan. Additionally, the Project will conform to the proposed General Plan land use designation of Medium High Density Residential.

   a. Land Use element - Goal 3: Orderly and sustainable outward growth into three Urban Centers with neighborhoods that provide a balanced mix of land uses and development types to support a community lifestyle and small town character.

      The Project is proposed within the Heritage Grove Urban Center, one of the three Urban Centers designated by the General Plan to facilitate growth in a manner that prioritizes high quality, fiscal sustainability, and balance. Approval of the Project would contribute to fulfilling the design guidelines of the urban center, encompassing circulation patterns, public facilities, and aesthetic considerations.

   b. Land Use element - Goal 3, Policy 3.9: Connected development. New development in Urban Centers must fully improve roadway, pedestrian, and bicycle systems within and adjacent to the proposed project and connect to existing urbanized development.

      Circulation Element - Goal 1: A comprehensive and well-maintained multimodal circulation system that provides for safe and efficient movement of people and goods.

      Circulation Element - Goal 1, Policy 1.6: Internal circulation. New development shall utilize a grid or modified-grid street pattern…

      As previously mentioned, the Project has been designed to fulfill both the circulation requirements outlined in the General Plan and the design guidelines specific to Heritage Grove. The development will enhance the adjacent streetscape, including Behymer along the Project's frontage, as well as Baron Avenue between Behymer and Perrin Avenues. Additionally, internal local streets, such as segments of Perrin Avenue and Hammel Avenue within the development area, will be installed. Baron and Perrin Avenues provide connection to the existing City developments situated immediately to the south and east of the Project site, thereby contributing to the overall street grid system in the area.

   c. Land Use element - Goal 5: A city with housing, employment, and lifestyle opportunities for all ages and incomes of residents.

Land Use Element - Goal 3, Policy 5.1: Housing variety in developments. Housing variety in developments. The Clovis General Plan has been planned to provide a variety of housing product types suitable to each state of a person's life. Each development should contribute to a diversity of housing sizes and types within the standards appropriate to the land use designation…

The Project comprises compact single-family residential homes on smaller-than-standard lot sizes, ranging from 1,980 to 11,676 square feet. Typically, in higher density developments with smaller homes, the cost of a home is reduced, creating opportunities for home ownership for families and individuals with moderate incomes.

Furthermore, the Project will contribute towards the City's housing inventory. Offering a non-traditional single-family development, it adds to the diversity of housing options in Clovis. The development presents two distinct product types: Wilson Homes proposes its Elev8ions style homes and its Regent Park style homes. The Elev8ions product features smaller lot sizes and predominantly 2-story homes, while the Regent Park project offers slightly larger lots with homes ranging from single-story to 2 stories. With these two product types complementing the already unique single-family residential development, the Project will enhance the variety of housing options available within the City's existing housing stock.

2. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City;

   The Project is proposed within the City's planned growth area and has undergone thorough review by various City departments and external agencies. No significant concerns were raised by these stakeholders. Furthermore, the Project's environmental impacts have been assessed through an associated Environmental Impact Report (EIR). The EIR delineated the significant environmental impacts across each mandated category by the California Environmental Quality Act (CEQA) and proposed mitigation measures where necessary. Notable impacts deemed significant and unavoidable include traffic. To proceed, the City must find and adopt a Statement of Overriding Considerations, affirming that the Project's economic, social, and other benefits outweigh its significant, unavoidable effects. Upon this determination by the City Council, the necessary findings will be established.

3. If applicable, the parcel is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for requested/ anticipated project;

   The 71.54 acre site is well suited to accommodate the proposed 590-lot single-family residential subdivision and necessary utility connections to the site. Situated directly north of the current city limits, the Project shares proximity with similar single-family residential developments. Adjacent to the Project site lies a sizable Fresno Metropolitan Flood Control District (FMFCD) basin to the east, while rural residential homes are situated across the proposed Baron Avenue in the same direction. Northward, across Behymer

Avenue, agricultural lands border the Project site. The Project's location is consistent with both existing and planned surrounding land uses. Moreover, proposed streets act as buffers between the Project and the existing rural residential homes.

4. There are compelling reasons for the amendment.

   *The applicant provided justification for the amendment which is outlined in **Attachment 6** of this report and summarized below. The decision-making body has the discretion to determine if reasons for amending the General Plan are compelling.*

   a. *The Project will provide a mix of high-quality housing within the northern new growth area of the City of Clovis and is justified by the need for more affordable housing. Higher density developments reduce urban delivery costs.*

   b. *The subject site is of an odd shape and will require extra ordinarily expensive public improvements. The slight increase in density addresses a market demand for the housing proposed by the project and lowers infrastructure costs thus improving affordability.*

   c. *At the time of the land use designation adoption for the property, development cost and related infrastructure cost were not accelerating at the rate as is now.*

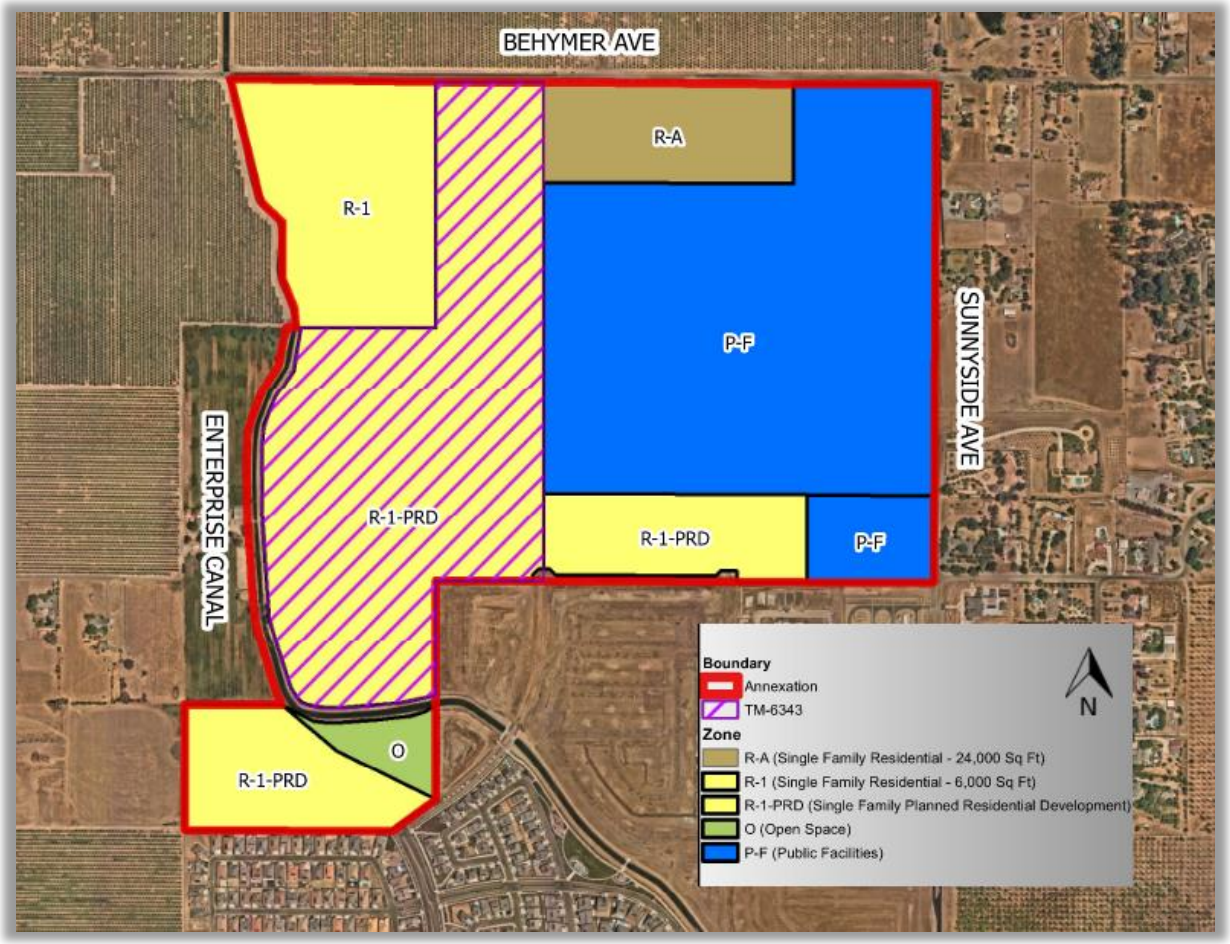
In brief, the proposed amendment to the General Plan satisfies the criteria necessary for approval. It adheres to the goals and policies outlined in the General Plan, shows no adverse effects on the city's public welfare, health, or safety, verifies the physical suitability for the Project, and offers compelling reasons for the amendment. These include the provision of high-quality housing, the improvement of recreational amenities, and contributing towards meeting the housing demand in the City of Clovis.

Prezone and Planned Development Permit

Prezone

The Project is associated with a prezone and planned development permit. The proposed prezone, R2021-006, aims to rezone the Project site from the Fresno County AE20 Zone District to the Clovis R-1-PRD (Planned Residential Development) Zone District. Additionally, the application will encompass the prezoning of several other sites slated for annexation from Fresno County Zoning to City of Clovis Zoning. This prezoning process is a prerequisite for their integration into the City. Figure 3 illustrates the proposed zoning for each property, all of which will align with the underlying General Plan designations for the seven sites. The proposed R-1-PRD designation for the specific Project site is consistent with the proposed Medium High General Plan designation.

FIGURE 3 – Zone District



Prezone Required Findings and Analysis

The subsequent findings are necessary to approve a Zone Map amendment. It is essential to note that these findings overlap with those detailed in the preceding General Plan Amendment Required Findings and Analysis section and will reference the information provided therein.

1. The proposed amendment is consistent with the goals, policies, and actions of the General Plan;

   The proposed Prezone conforms to both the General Plan designation intended for this Project and the existing General Plan designations for sites within the annexation area, extending beyond the 71.54 acre Project area. This alignment with the goals, policies, and actions outlined in the General Plan echoes the conclusions outlined in the preceding section on General Plan Amendment Required Findings and Analysis.

2. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City;

   The Project is located within the City's designated growth area and has undergone comprehensive evaluation by multiple City departments and external agencies for

feedback. Importantly, no significant concerns were raised by these stakeholders. Additionally, the Project's environmental impacts have been assessed through the accompanying Environmental Impact Report (EIR).

3. The parcel is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested zoning designations and anticipated land uses/ projects.

   Refer to number 3 of the General Plan Amendment Required Findings and Analysis section.

Planned Residential Development

The proposed R-1-PRD Zone District complements the associated planned development permit. Planned development permits are required for all planned residential developments, including the proposed Project. Planned development permits facilitate design flexibility and encourage innovative and superior site planning, culminating in a comprehensive development of high quality. Further details regarding the planned development permit are outlined below.

Development Standards

The planned development permit has the authority to adjust or modify development standards, such as building coverage, height, setbacks, fence and wall heights, landscaping, open space, and street layout, where necessary and justifiable. The table below outlines the proposed development standards for each product type. While the applicant has provided models for each of their products, they will be assessed against the established development standards and formalized through the residential site plan review process, which has been included as a condition of approval for the tract map and planned development permit.

Table 1 – Planned Development Permit Development Standards

Standard	Housing Products		Typical City Standards R-1-MD (Medium High Density)
	Elev8ions (376 lots)	Regent (214 lots)	
Minimum Lot Size (Square Feet)	1,800	4,500	4,500
Minimum Parcel Width	36 feet	50 feet	50 feet
Minimum Curved Parcel Width	36 feet	25 feet	50 feet
Minimum Corner Parcel Width	36 feet	53 feet	50 feet
Minimum Parcel Depth	50 feet	90 feet	90 feet
Maximum Lot Coverage	65 %	60%	45%
Maximum Height	2-stories not to exceed 35 feet		
Front (Garage) Setback	5 feet	20 feet (local street) 18 feet	20 feet
Front (Living) Setback	4 feet	10 feet	15 feet
Setback to Projections and/or Porch/ Patio	4 feet	9 feet	15 feet
Garage Side Setback	5 feet	5 feet	5 feet
Corner Street Side Setbacks	3 feet	8 feet	10 feet
Reversed Corner Street Side Setback	3 feet	8 feet	15 feet
Corner Street Side Fence Setback	3 feet	3 feet	15 feet

Interior Side Yard Setback (opposite from garage)	3 feet	3 feet	5 feet
Rear Setback	4 feet	8 feet	15 feet
Garages	• 20'x20' interior dimension (2-car) • 10'x20' interior dimension (1-car)	• 20'x20' interior dimension (2-car) • 20'x20' minimum with 9'x15.5' minimum tandem (3-car)	20'X22' interior dimension (2-car)

Table 1 above delineates alterations to the customary development criteria associated with the Medium High Density zone district. This table categorically presents various development standards, including the applicant's proposed standards for each of their proposed development types (Elev8ions and Regent). Additionally, the last column of the table provides standards for the typical zone district consistent with Medium High Density, specifically the R-1-MD Zone District, for comparison. Notably, deviations primarily entail reductions in listed standards such as lot size, parcel configuration, setbacks, garage sizes, and an increase in maximum lot coverage. Furthermore, the Elev8ions product will include one home model featuring a single-car garage, whereas it is typical for a single-family home to provide a 2-car garage.

It's crucial to emphasize that, to ensure adequate side yard access and proper storage for trash toters, the Project proposes a minimum setback of five (5') feet for all garage-side setbacks. Additionally, the Project is conditioned to provide an all-weather surface for the placement and storage of trash receptacles, extending from the 5-foot side yard (garage side) to the front of the property. These proposed development standards are in line with recent projects approved under the planned development permit process.

Homeowners Association

The Project includes the integration of private streets within three (3) gated communities. Within these communities, the Homeowners Association (HOA) is slated to supervise the maintenance of open spaces and common areas, ensuring they remain well-kept and functional. Furthermore, the HOA will be responsible for enforcing regulations pertaining to unauthorized parking within the gated communities, thereby promoting a secure and organized environment for both residents and visitors. This setup is designed to uphold community standards and elevate the quality of life for residents within the Project's jurisdiction.

Proposed Amenities

Chapter 9.66 of the Clovis Municipal Code, Planned Development Permits, offers a framework for flexibility in development standards to accommodate various development types that may not conform to standard regulations. Within this context, planned residential developments are mandated to provide a set of public amenities proportional to the deviations being sought.

In exchange for concessions such as reduced lot sizes, setbacks, increased lot coverage, and deviations in garage specifications, the applicant proposes a range of project amenities aimed at benefiting both homeowners and the wider community. These amenities include two gated community areas featuring recreation buildings and pools, a trail along the north side of Perrin between Baron and Hammel Avenues comprising a spacious, meandering concrete path intersecting with a decomposed granite running trail, as well as an open space area equipped with fitness equipment. The development will also provide for a widened pedestrian right-of-way

along the west side of Hammel Avenue to accommodate a meandering trail, facilitating connectivity between the proposed park and future developments to the north, ultimately extending to Behymer Avenue. A conceptual illustration of the proposed amenities is provided as **Attachment 8**.

It is important to highlight that, in addition to the requirement for proportional amenities, approval of a planned development permit necessitates the demonstration of superior development quality compared to what could be achieved through conventional development practices on the site. This might entail enhancements such as upgraded entry points, embellished block walls along street frontages, and superior exterior elevation design. These features are typically integrated into the proposed planned development projects by the applicant, subject to review and approval during the civil plan review process and residential site plan evaluation for individual lots.

Planned Development Permit Required Findings and Analysis
The following are findings required to approve a planned development permit. Some of these findings overlap with those detailed in the previous General Plan Amendment Required Findings and Analysis section and will reference the information provided therein.

1. The planned development permit would:
   a. Be allowed within the subject base zoning district.

      The proposed Planned Development Permit is permissible within the R-1-PRD Zone District, which is proposed concurrently with the pre-zoning of the Project site (Development Area).

   b. Be consistent with the purpose, intent, goals, policies, actions, and land use designations of the General Plan and any applicable specific plan.

      Refer to number 1 of the General Plan Amendment Required Findings and Analysis section.

   c. Be generally in compliance with all of the applicable provisions of this Development Code relating to both on- and off-site improvements that are necessary to accommodate flexibility in site planning and property development and to carry out the purpose, intent, and requirements of this chapter and the subject base zoning district, including prescribed development standards and applicable design guidelines.

      The Project incorporates measures to construct both on-site and off-site improvements in accordance with the City's adopted infrastructure master plans and the standards outlined in the 2014 General Plan. The design of these improvements aligns with the proposed Project development standards and land use changes outlined in the staff report.

   d. Ensure compatibility of property uses within the zoning district and general neighborhood of the proposed development.

The Project shares a comparable density and development type with the existing surrounding developments, thus ensuring compatibility within the area.

2. The proposed project would produce a comprehensive development of superior quality (e.g., appropriate variety of structure placement and orientation opportunities, appropriate mix of structure sizes, high quality architectural design, increased amounts of landscaping and open space, improved solutions to the design and placement of parking facilities, incorporation of a program of enhanced amenities, etc.) than which might otherwise occur from more traditional development applications.

   The Project integrates design elements that elevate its quality beyond traditional developments. Notably, it includes amenities like open spaces and trails. Additionally, a corner gateway feature will be incorporated at the northwest corner of Behymer and Baron Avenues. The architectural design of the model homes will undergo thorough evaluation during the residential site plan review process to ensure high quality. Furthermore, landscaping along Perrin and Hammel Avenues will be enhanced as part of the Project's aesthetic improvements.

3. Proper standards and conditions have been imposed to ensure the protection of the public health, safety, and welfare.

   The proposed Planned Development Permit will comply with Fire Department standards, the Clovis Development Code, and Building Code regulations to ensure adherence to public health and safety requirements.

4. Proper on-site traffic circulation and control is designed into the development to ensure protection for fire suppression and police surveillance equal to or better than what would normally be created by compliance with the minimum setback and parcel width standards identified in Division 2 of this title (Zoning Districts, Allowable Land Uses, and Zone-Specific Standards).

   The proposed Planned Development Permit will adhere to the standards set by the Fire Department and the requirements of the City Engineer concerning fire suppression measures and enhancements to traffic flow related to TM6343.

5. The subject parcel is adequate in terms of size, shape, topography, and circumstances to accommodate the proposed development.

   Reber to number 3 of the General Plan Amendment Required Findings and Analysis section.

6. The design, location, operating characteristics, and size of the proposed development would be compatible with the existing and future land uses in the vicinity, in terms of aesthetic values, character, scale, and view protection.

   The Project mirrors the existing developments to the south and maintains a comparable density that aligns with both current and future land uses in the area. As a result, it will blend well in terms of both character and functionality.

Vesting Tentative Map

The Project encompasses a 71.54 acre site and is associated with a vesting tentative map, TM6343, provided as **Attachment 4A** in this report. TM6343 consists of 590 residential lots and several outlots allocated for amenities, open spaces, parking, and more. Further specifics regarding the vesting tentative tract map are detailed below.

Lot Details

The proposed 590-lot vesting tentative tract map features a range of lot sizes from 1,980 to 11,676 square feet, with an average size of about 3,335 square feet. This tract map is organized into three gated communities. The northernmost and southernmost neighborhoods will feature the developer's Elev8ions product line, while the central neighborhood will showcase the Regent Park product line. The Elev8ions product line includes 376 lots, with sizes varying from 1,980 to 4,928 square feet and an average size of 2,151 square feet, offering smaller lots and more compact housing options compared to the Regent Park line. The Regent Park product line, on the other hand, encompasses 214 lots with sizes between 4,050 and 11,676 square feet, with an average lot size of 4,050 square feet.

These specific product types present distinctive lot sizes that differ from the standard zoning districts outlined in the Municipal Code. The PRD designation permits these unique lot sizes along with specific development standards, as detailed in the PRD section of the report. While the lot sizes are unique, this type of development is common within the City of Clovis and aligns with its established patterns.

Circulation

As previously stated, the Project aims to improve general circulation in the area by upgrading existing internal streets and constructing new ones. It will enhance the section of Behymer Avenue that fronts the property to meet city standards and create Baron Avenue to connect Perrin and Behymer Avenues. Furthermore, the Project will extend Perrin Avenue, which will transition into Hammel Avenue, enhancing connectivity. These streets will comply with the City's standards for local roads, including upgraded pedestrian pathways along the north side of Perrin Avenue and the west side of Hammel Avenue. Detailed information on these enhancements can be found in the amenities section above. Additionally, the Project includes 37-foot-wide private streets within each of the three gated communities, designed to accommodate parking on both sides.

Pedestrian access outside the gated communities will be well facilitated, but sidewalks are not included within the gated areas themselves.

Heritage Grove Thematic Elements

The City’s 2014 General Plan directed the preparation and adoption of a comprehensive design document for the Heritage Grove area. As a result, the Heritage Grove Design Guidelines was developed and adopted on December 5, 2016. The document is intended to build upon the merits of the distinctive area that contains a unique and valuable agricultural and cultural heritage and to provide a vision and guidance for its future development and sustainability. The design document establishes an overall agricultural theme and quality for Heritage Grove. It illustrates

and directs the intended architectural, landscape, and site elements to reinforce the theme and quality. Criteria and examples of design and treatments are provided throughout the document.

The proposed development is situated near a great opportunity area within Heritage Grove. It is located adjacent to the enterprise canal. Additionally, it is located directly east, across the enterprise canal from a future City park and trail with planned connectivity. These features contribute to the environment that the future residents of this development will enjoy. Heritage Grove is sprinkled with various areas designated for thematic elements including corner gateways. Gateways serve the purpose of framing and marking the entry points into the Heritage Grove urban center and distinctive neighborhoods. This development will design and install a corner gateway at the southwest corner of Behymer and Baron Avenues. This design will be the first design of its kind in the Heritage Grove area and therefore will be carried out in future developments with designated corner gateway requirements. Staff will work with the developer to establish a design that meets the intent provided in the Heritage Grove Design Guidelines. The Director of Planning and Development Services will be responsible for approving the final corner gateway design.

Vesting Tentative Map Required Findings and Analysis

The following are findings required to approve a Vesting Tentative Map. It is essential to note that some of these findings overlap with those detailed in the previous Required Findings and Analysis sections and will reference the information provided therein.

1. The proposed map, subdivision design, and improvements are consistent with the General Plan and any applicable specific plan.

   The proposed map design maintains consistency with both the General Plan and the proposed planned development permit. All improvements will adhere to the Conditions of Approvals and City standards. The specifics of these improvements will undergo scrutiny during the City's civil review process to ensure compliance with standards.

2. The site is physically suitable for the type and proposed density of development.

   Refer to number 3 of the General Plan Amendment Required Findings and Analysis section.

3. The design of the subdivision and the proposed improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

   As stated in the Project EIR, the proposed Project and its associated enhancements are not expected to generate any significant impacts, given the implementation of mitigation measures outlined in the Final EIR. Consequently, the Project is not anticipated to inflict substantial environmental harm or endanger fish and wildlife.

4. The design of the subdivision or type of improvements is not likely to cause serious public health or safety problems.

The proposed tract map will comply with Fire Department standards, the Clovis Development Code, and Building Code regulations to ensure adherence to public health and safety requirements.

5. The design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through or use of property within the proposed subdivision. This finding may also be made if the review authority finds that alternate easements for access or use will be provided, and that they will be substantially equivalent to ones previously acquired by the public. This finding shall apply only to easements of record, or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the review authority to determine that the public at large has acquired easements of access through or use of property within the proposed subdivision.

During the final map review process conducted by the City's Engineering Division, all easements will be identified. Should it be required, alternative easements will be offered, ensuring they are substantially equivalent to those previously acquired for access through the proposed TM6343.

6. The discharge of sewage from the proposed subdivision into the community sewer system will not result in violation of existing requirements prescribed by the California Regional Water Quality Control Board.

The City Engineer has determined that the City has the capacity to accommodate the proposed Project. Installation of sewer lines within the proposed subdivision and beyond its borders will adhere to the regulations set forth by the California Regional Water Quality Control Board.

7. The design of the subdivision provides, to the extent feasible, passive or natural heating and cooling opportunities.

The proposed subdivision will comply with the Clovis Development Code and California Building Code requirements as it relates to heating and cooling opportunities within TM6343.

8. The proposed subdivision, its design, density, and type of development and improvements conform to the regulations of this Development Code and the regulations of any public agency having jurisdiction by law.

The proposed subdivision is proposing a density of 8.25 units per acre, aligning with the Clovis General Plan's Land Use designation of Medium-High Residential. Furthermore, the proposed subdivision comprises single-family housing, in accordance with the residential development requirements outlined in the Clovis General Plan.

In light of court decisions, it is appropriate for the City to make findings of consistency between the required dedications and the proposed development. Every dedication condition needs to be evaluated to confirm that there is a rough proportionality, or that a required degree of connection exists between the dedication imposed and the proposed development. The City of

Clovis has made a finding that the dedication of property for this Project satisfies the development's proportionate contribution to the City's circulation system. The circulation system directly benefits the subject property by providing access and transportation routes that service the site. Further, the circulation system also enhances the property's value.

Neighborhood Meeting

In accordance with city regulations, the applicant conducted a community meeting on Thursday, January 12, 2023, at the Clovis Council Chambers. The meeting was attended by approximately nine residents, in addition to the project team and City staff. Attendees primarily voiced concerns about the proposed Project and raised questions on various topics, including but not limited to, the Project's design, environmental impact assessment under CEQA, traffic implications, and the nature of the product. These concerns were considered by staff in its evaluation of the Project.

Public Comments

A public notice was sent to area residents within 800 feet of the property boundaries. Staff has not received comments or concerns from the public upon finalization of this report.

Review and Comments from Agencies

The Project was distributed to all City Divisions as well as outside agencies, including Caltrans, Clovis Unified School District, Fresno Irrigation District, Fresno Metropolitan Flood Control District, AT&T, PG&E, San Joaquin Valley Air Pollution Control District, State Department of Fish and Wildlife, County of Fresno, and Fresno Local Agency Formation Commission (LAFCo).

Comments received are attached only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the applicant for their records.

Community Facilities District

The fiscal analysis of the Loma Vista Specific Plan identified possible long-term funding shortfalls in Clovis' Citywide operating and maintenance costs. To address this issue the City of Clovis implemented a Community Facilities District. Community Facilities Districts (CFDs) are a means of providing additional funding for the provision of public facilities and services for public safety in newly developing areas of the community where the city would not otherwise be able to afford to continue to provide an adequate level of service as the City continues to grow. The use of CFDs is fairly common among cities in California experiencing high rates of growth, such as Clovis, due to significant losses of local revenue from tax shifts authorized by the State of California and the need to continue to provide an adequate level of service as growth occurs.

A condition of approval has been added to this tentative map requiring participation of this vesting tentative map in the CFD.

California Environmental Quality Act (CEQA)

An Initial Study was prepared to identify the Project's environmental effects and determine whether additional analysis is required. The Initial Study identified potentially significant impacts to the following environmental factors: noise, air quality, greenhouse gas and, transportation. Although agricultural resources was screened out for additional review through the Initial Study, a determination was made to include it for additional analysis in the EIR. These environmental factors must be further analyzed through an Environmental Impact Report (EIR). The documents associated with the EIR are provided as **Attachments 11 and 12** in this report.

An EIR must disclose the expected environmental impacts, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed Project that could reduce or avoid its adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize environmental impacts of proposed development, and an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

The following is a timeline of the environmental review process for this Project and description and summary of findings:

- Publication of Initial Study and Notice of Preparation of EIR (SCH 2022120483) – 12-19-2022
- Public Scoping Period – 12-19-2022 to 1-17-2023
- Public Scoping Meeting – 1-12-23
- Publication of Draft EIR and Notice of Availability (SCH 2022120483) – 1-12-2024
- Public Review period of DEIR – 1-12-2024 to 3-4-2024

On December 19, 2022, the City circulated a Notice of Preparation (NOP) notifying responsible agencies and interested parties that an EIR would be prepared for the proposed Project and indicated the environmental topics anticipated to be addressed in the EIR. The NOP was sent to the State Clearing house (SCH # 2022120783), responsible agencies and interested parties, including the surrounding property owners. A scoping session was held on January 12, 2023, to solicit feedback regarding the scope and content of the EIR.

The Draft EIR (**Attachment 11)** was made available for public review on January 12, 2024, and was distributed to local and state responsible and trustee agencies. The Notice of Availability (NOA) for the Draft EIR was submitted to the State Clearinghouse, provided to responsible agencies and interested parties, and filed with the Frenso County Clerk. The City collected comments between January 12, 2024 and March 4, 2024, exceeding the mandated 45-day public comment period.

As a result of the publication period, four comment letters were received within the review period. Letters received are from State and Local agencies including the California Department of Fish and Wildlife, California Department of Transportation, Fresno Irrigation District, and San Joaquin Valley Air Pollution Control District. The comment letters and responses are provided in the Final EIR provided within **Attachment 12**.

In accordance with CEQA Guidelines Section 15088, this Final EIR responds to the written comments received on the Draft EIR, as required by CEQA. This Final EIR also contains minor edits to the Draft EIR. This document, together with the Draft EIR, constitutes the Final EIR.

The EIR determined that the following environmental factors would have less than significant environmental impacts with mitigation measures: agricultural resources, air quality, greenhouse gas emissions, and noise. Mitigation measures are provided in the MMRP section of the EIR. The Project would result in significant and unavoidable impacts regarding transportation. The analysis identifies potential conflicts in the levels of service on roadways in conflict with the approved general plan and results in vehicle miles travel (VMT) metrics that are greater than the applicable thresholds despite the application of mitigation measures. The identification of significant and unavoidable impacts does not mean that the Project cannot be approved. The City Council will consider the adoption of a statement of overriding considerations in conjunction with its consideration of the Project. A statement of overriding considerations is a determination that specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, allowing the adverse environmental effects to be considered acceptable.

The City published notice of this public hearing in *The Business Journal* on Wednesday, April 8, 2024.

REASON FOR RECOMMENDATION

The proposal aims to introduce a variety of housing options and a quality living space in the Heritage Grove growth area. The Project will minimally affect sewer, water, and additional public services while ensuring a fair contribution to the infrastructure and open spaces. Furthermore, each application included with the Project complies with the necessary criteria for consideration in the decision-making process as outlined in the report. Consequently, staff recommends that the Planning Commission approve resolutions recommending that the City Council approve GPA2021-003, R2021-006, PDP2021-001 and TM6343, subject to the conditions of approval provided in **Attachments 4A and 5A**.

ACTIONS FOLLOWING APPROVAL

These items will proceed to the City Council for final deliberation, where the Council will also review the proposal for annexation.

NOTICE OF HEARING

Property owners within 800 feet notified: 182

Prepared by: Lily Cha, Senior Planner

Reviewed by: _____

Dave Merchen
City Planner

RESOLUTION 24-__

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS RECOMMENDING THAT THE CITY COUNCIL CERTIFY THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE TM 6343 PROJECT AND RECOMMEND THE ADOPTION OF CEQA FINDINGS OF FACT AND A STATEMENT OF OVERRIDING CONSIDERATIONS, AND ADOPTION OF A MITIGATION MONITORING AND REPORTING PROGRAM

WHEREAS, Wilson Premier Homes, Inc. 7550 N. Palm Avenue, Suite 102, Fresno, CA 93711, initiated the applications for (i) General Plan Amendment 2021-003 to amend the Land Use Element of the 2014 Clovis General Plan to re-designate land from the Medium Density Residential (4.1 to 7.0 DU/ Ac) land use designation to the Medium-High Density Residential (7.1 to 15.0 DU/Ac) land use designation; (ii) Prezone 2021-006 to prezone approximately 71.54 acres from the Fresno County AE20 Zone District to the Clovis R-1-PRD, R-1, R-A, O, and PF Zone Districts; (iii) Vesting Tentative Tract Map 6343 for a 590-lot single-family subdivision; and (iv) Planned Development Permit 2021-001 to deviate from the R-1 Zone District development standards associated with Vesting Tentative Tract Map 6343; and

WHEREAS, the Project being considered by the Clovis Planning Commission is in conjunction with an annexation proposal of the development area (approximately 246 acres). The proposed annexation will be considered by the Clovis City Council in a separately noticed public hearing; and

WHEREAS, the City caused to be prepared a Draft Environmental Impact Report ("Draft EIR") for the Project in December 19, 2022 to evaluate potentially significant adverse environmental impacts; and

WHEREAS, the Draft EIR was made available for a minimum 45-day public review period beginning on January 12, 2024 and ending on March 4, 2024, during which time all interested parties were invited to submit written comments on the Draft EIR for consideration by the Planning Commission and City Council; and

WHEREAS, the City caused to be prepared a Final Environmental Impact Report ("Final EIR") for the Project, dated April 2024, which contains comments upon the Draft EIR and responses thereto, as well as changes and additions to the Draft EIR text and a mitigation monitoring and reporting program; and

WHEREAS, the Draft EIR and the Final EIR collectively make up the Environmental Impact Report ("EIR") for the TM 6343 Project; and

WHEREAS, the Draft EIR and Final EIR were prepared, circulated, and made available for public comment in accordance with the California Environmental Quality Act ("CEQA"), Public Resources Code, Sections 21000 et seq., and the Guidelines for Implementation of CEQA, 14 California Code of Regulations, Sections 15000 et seq. (the

"CEQA Guidelines"); and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Project and the EIR, which is on file with the City's Department of Planning and Development Services ("Department"), and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the requests, and the verbal and written testimony and other evidence presented during the public hearing; and

WHEREAS, the Planning Commission has independently reviewed and considered the Final EIR; and

WHEREAS, the Planning Commission has evaluated and considered all comments, written and oral, received from persons who reviewed the Draft EIR or the Final EIR, or otherwise commented on the Project; and

WHEREAS, the Planning Commission has independently reviewed and considered the CEQA Statement of Facts and Findings and proposed Statement of Overriding Considerations (**Attachment A**), and Mitigation Monitoring and Reporting Program (**Attachment B**).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. Finds that the EIR for the Project is adequate and has been completed in compliance with CEQA and the CEQA Guidelines.

2. Finds and declares that the EIR was presented to the Planning Commission and that the Planning Commission has independently reviewed and considered the information contained in the EIR prior to recommending approval of the Project.

3. Based upon its review of the EIR, finds that the EIR is an adequate assessment of the potentially significant environmental impacts of the Project as described in the EIR, sets forth a reasonable range of alternatives to the Project, and represents the independent judgment of the Planning Commission.

4. Finds that the Final EIR additions, clarifications, amplifications, modifications and other information in response to comments on the Draft EIR are not significant new information as that term is defined under the provisions of CEQA or the CEQA Guidelines because such changes and additional information do not indicate that (i) any new significant environmental impacts not already evaluated would result from the Project (ii) there is any substantial increase in the severity of any environmental impact from the Project, (iii) any

feasible mitigation measures considerably different from those previously analyzed in the Draft EIR have been proposed that would lessen significant environmental impacts of the Project, or (iv) any feasible alternatives considerably different from those analyzed in the Draft EIR have been proposed that would lessen the significant environmental impacts of the Project. Accordingly, the Planning Commission hereby finds and determines that recirculation of the Final EIR for further public review and comment is not warranted.

5. The Planning Commission has balanced the benefits of the Project against the significant and unavoidable impacts associated with the Project, has considered all feasible mitigation measures, and has examined potentially feasible alternatives to the Project.

6. Finds that none of the project alternatives analyzed in the EIR meet the Project objectives to the same degree as the Project and none of the alternatives are environmentally preferable to the proposed Project.

7. Finds that, after considering all feasible mitigation measures and weighing the advantages and disadvantages of the Project, as proposed, with the Project alternatives, including the significant and unavoidable impacts, the feasibility of project alternatives, and the “no project” alternative, the Project as proposed and described in the EIR may be approved.

8. Recommends that the City Council certify the EIR as adequate and completed in compliance with CEQA and the CEQA Guidelines.

9. Recommends that the City Council adopt the CEQA Statement of Facts and Findings set forth in **Attachment A**.

10. Recommends that the City Council adopt a Statement of Overriding Considerations substantially in the form set forth in **Attachment A**, with such modifications, additions or deletions as the City Council deems appropriate.

11. Recommends that the City Council adopt the Mitigation Monitoring and Reporting Program set forth in **Attachment B**, including the mitigation measures identified therein and as described in the EIR.

* * * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on April 18, 2024, upon a motion by _____, seconded by _____ and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-__
DATE: April 18, 2024

_____
Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

Attachment A
CEQA Statement of Facts and Findings & Statement of Overriding Considerations

Attachment B
Mitigation Monitoring and Reporting Program

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

TRACT MAP 6343

CLOVIS, CALIFORNIA

LSA

April 2024

Attachment A

This page intentionally left blank

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

TRACT MAP 6343
CLOVIS, CALIFORNIA

Submitted to:

City of Clovis
Planning Division
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
2565 Alluvial Avenue, Suite 112
Clovis, California 93611
(559) 490-1210

Project No. CIT2201

LSA

April 2024

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS i
INTRODUCTION 1
PROJECT DESCRIPTION 3
Project Location 3
Project Objectives 3
Project Characteristics 3
PROCEDURAL FINDINGS 5
RECORD OF PROCEEDINGS 7
FINDINGS REQUIRED UNDER CEQA 9
Aesthetics 9
Agriculture and Forestry Resources 10
Air Quality 12
Biological Resources 12
Cultural and Tribal Resources 16
Energy 19
Geology and Soils 20
Greenhouse Gas Emissions 21
Hazards and Hazardous materials 23
Hydrology and Water Quality 24
Land Use and Planning 24
Mineral Resources 25
Noise 25
Population and Housing 28
Public Services 29
Recreation 29
Transportation 30
Utilities and Service Systems 34
Wildfire 35
Mitigation Monitoring 35
Significant Irreversible Environment Effects 36
Growth Inducement 37
PROJECT ALTERNATIVES 39
Alternatives Considered in the EIR 39
STATEMENT OF OVERRIDING CONSIDERATIONS 43

This page intentionally left blank

INTRODUCTION

The following Findings of Fact and Statement of Overriding Considerations are based in part on the information contained in the Tract Map 6343 Draft and Final Environmental Impact Report (State Clearinghouse # 2022120483) that was prepared by the City of Clovis (City) acting as lead agency pursuant to the California Environmental Quality Act (CEQA). Hereafter, unless specifically identified, the Notice of Preparation (NOP), Notices of Availability and Completion (NOA/NOC), Draft Environmental Impact Report (Draft EIR), Appendices, Technical Studies, Final Environmental Impact Report containing Responses to Comments and textual revisions to the Draft EIR (in the Final Environmental Impact Report), and Mitigation Monitoring and Reporting Program (MMRP) will be referred to collectively herein as the "EIR." These Findings are based on the entire record before the Planning Commission, including the EIR. The EIR is hereby incorporated by reference and is available for review at the City of Clovis, 1033 Fifth Street, Clovis, California, and electronically at: https://cityofclovis.com/planning-and-development/planning/ceqa/

The purpose of these Findings of Fact and Statement of Overriding Considerations is to satisfy the requirements of Sections 15091, 15092, and 15093 of the CEQA Guidelines, associated with approval of proposed Tract Map 6343 (herein referred to as the proposed project).

This page intentionally left blank

PROJECT DESCRIPTION

PROJECT LOCATION

The project site is in an unincorporated area of Fresno County. The project site is within the Sphere of Influence of the City of Clovis, and within the Northwest Urban Center area identified in the City's General Plan, now referred to as Heritage Grove. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, Fresno Municipal Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east.

PROJECT OBJECTIVES

The following is a list of objectives for the proposed project:

- Provide residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis.
- Establish a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand.
- Implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land.
- Provide infrastructure that meets City standards and is integrated with existing and planned facilities and connections.
- Develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

PROJECT CHARACTERISTICS

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. The proposed project would be developed in three phases, as described below.

Phase 1 would include the development of approximately 136 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 1 would be located on the southern

portion of the project site and would be accessed through one ingress and egress street on Perrin Avenue. Phase 1 would include the construction of approximately 44 parking spaces, an approximately 8,745 square-foot community pool and recreation area, an approximately 13,930-square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

Phase 2 would include the development of approximately 214 single-family residential units with an average size of approximately 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress street along the future southern extension of Baron Avenue, and one gated ingress and egress street along Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

Phase 3 of the proposed project would include the development of approximately 240 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress streets located along the future southern extension of Baron Avenue, and through one gated egress street access located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985-square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue.

In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot-long extension of Baron Avenue south of East Behymer Avenue.

A number of other permits and approvals are also contemplated as part of the project, as further described in Section 3.0 of the EIR, which is incorporated by reference.

PROCEDURAL FINDINGS

On December 19, 2022, the City circulated an NOP notifying responsible agencies and interested parties that an EIR would be prepared for the proposed project and indicated the environmental topics anticipated to be addressed in the EIR. The NOP was sent to the State Clearinghouse, responsible agencies, interested parties, and organizations likely to be interested in the potential impacts of the proposed project. A scoping session was held in person on January 13, 2022, to solicit feedback regarding the scope and content of the EIR. Comments received by the City on the NOP were considered during preparation of the Draft EIR.

The Draft EIR was made available for public review on January 12, 2024, and was distributed to local and State responsible and trustee agencies. The NOA for the Draft EIR was submitted to the State Clearinghouse, provided to all individuals and organizations who made a written request for notice, and filed with the Fresno County Clerk.

The CEQA-mandated public comment period ended on March 4, 2024. The City accepted and responded to all comments received during the 53-day public comment period for the Draft EIR, between January 12, 2024, and March 4, 2024.

Following public review of the Draft EIR, a Final EIR was prepared. The Final EIR was made available in March 2024 and consists of the following items:

- The Draft EIR released on January 12, 2024.
- Responses to Comments; and
- Text revisions to the Draft EIR.

As required by CEQA Guidelines Section 15088(b), public agencies that commented on the Public Review Draft EIR were provided at least 10 days to review the proposed responses contained in the Final EIR prior to the date for consideration of the Final EIR for certification.

This page intentionally left blank

RECORD OF PROCEEDINGS

In accordance with Public Resources Code (PRC) Section 21167.6(e), the record of proceedings for the City's decision on the project includes the following documents, which are incorporated by reference and made part of the record supporting these Findings:

- City staff reports and all attachments;
- The Draft EIR and all appendices to the Draft EIR;
- The Final EIR and all appendices to the Final EIR;
- All notices required by CEQA and presentation materials related to the project;
- All comments submitted by agencies or members of the public during the comment period on the NOP and the Draft EIR;
- All studies conducted for the project and contained or referenced in the Draft EIR and the Final EIR;
- All documents cited or referenced in the Draft EIR and the Final EIR;
- All public reports and documents related to the project prepared for the City and other agencies;
- All other documents related to the project;
- The MMRP for the project; and
- Any additional items not included above if otherwise required by law.

The documents constituting the record of proceedings are available for review by responsible agencies and interested members of the public during normal business hours at the City's offices at 1033 Fifth Street, Clovis, California.

The Draft EIR and Final EIR are incorporated into these Findings in their entirety, unless and only to the extent that these Findings expressly do not incorporate by reference the Draft EIR and Final EIR. Without limitation, this incorporation is intended to elaborate on the scope and nature of mitigation measures, the basis for determining the significance of impacts, the comparative analysis of alternatives, and the reasons for approving the project in spite of the potential for associated significant and unavoidable adverse physical environmental impacts.

This page intentionally left blank

FINDINGS REQUIRED UNDER CEQA

The Draft EIR identified a number of less than significant impacts associated with the project that do not require mitigation. The Draft EIR also identified a number of significant and potentially significant environmental effects (or impacts) that may be caused in whole or in part by the project. Some of these significant effects can be fully avoided or substantially lessened through the adoption of feasible mitigation measures. Other effects cannot be, and thus may be significant and unavoidable. For reasons set forth in Section 7, "Statement of Overriding Considerations," however, the City has determined that overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the project.

The findings of the City with respect to the project's significant effects and mitigation measures are set forth in the EIR and these Findings of Fact. The Summary of Findings does not attempt to replicate or restate the full analysis of each environmental impact contained in the EIR. Please refer to the Draft EIR and Final EIR for more detail.

The following provides a summary description of each potentially significant impact, describes the applicable mitigation measures identified in the Final EIR and adopted by the City, and states the findings of the City regarding the significance of each impact after imposition of the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the Draft EIR and Final EIR and associated record (described herein), both of which are incorporated by reference. The City hereby ratifies, adopts, and incorporates the analysis and explanation in the record into these Findings, and ratifies, adopts, and incorporates into these Findings the determinations and conclusions of the EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these Findings.

To the extent any of the mitigation measures are within the jurisdiction of other agencies, the City finds those agencies can and should implement those measures within their jurisdiction and control (CEQA Guidelines, Section 15091[a][2]).

AESTHETICS

Environmental Effects of the Project Found to Have No Impact on the Environment or to Have a Less Than Significant Impact on the Environment

- *The proposed project would not have a substantial adverse effect on a scenic vista.*
- *The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.*
- *The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point). Due to the location of the project in an urbanized area, the project would not conflict with applicable zoning and other regulations governing scenic quality.*

- *The project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

AGRICULTURE AND FORESTRY RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact AG-1:*** *The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*

- ***Impact AG-3:*** *The project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.*

- *The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code section.51104(g)).*

- *The project would not result in the loss of forest land or conversion of forest land to non-forest use.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- ***Impact AG-2:*** *The project would conflict with existing zoning for agricultural use or a Williamson Act contract.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: The proposed project site is in APN 556-030-014S, which is currently under a Williamson Act contract. As APN 556-030-014S is identified for development pursuant to the General Plan, a Williamson Act cancellation process for the parcel would take place prior to issuance of building permits for the proposed project. Implementation of Mitigation Measure AG-2 would ensure compliance with the required procedure for cancellation of the Williamson Act contract at APN 556-030-014S. With implementation of Mitigation Measure AG-2, by the time project development begins at the project site, there would be no parcels within the project site

under a Williamson Act contract. Therefore, with Mitigation Measure AG-2, the proposed project would not conflict with zoning for agriculture or a Williamson Act contract, and the impact would be less than significant.

Mitigation Measure AG-2 Prior to issuance of building permits, the Project Applicant shall petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the Fresno County Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.

- ***Impact AG-4:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to agricultural resources.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: The project would implement Mitigation Measure AG-2 to reduce impacts related to conflicts with a Williamson Act contract to less than significant levels, as described above. Additionally, although the proposed project would result in the conversion of agricultural uses to nonagricultural uses through development of the project site, the City of Clovis General Plan EIR previously identified that conversion of farmland resulting from development of the General Plan would result in significant and unavoidable impacts. As such, the project would not result in new significant impacts that would contribute to cumulative impacts to agricultural resources. Further, the project site does not include any forestlands or timberland, so implementation of the proposed project would not contribute to cumulative impacts to forestry resources. Thus, the project would not contribute to any significant cumulative impacts to agricultural and forestry resources, and cumulative impacts to these resources would be less than significant.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

AIR QUALITY

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact AIR-1:*** *The project would not conflict with or obstruct implementation of the applicable air quality plan.*
- ***Impact AIR-2:*** *Implementation of the proposed project would not result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or State ambient air quality standard.*
- ***Impact AIR-3:*** *Implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.*
- ***Impact AIR-4:*** *The project would not result in significant odors that could adversely affect a substantial number of people.*
- ***Impact AIR-5:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would not contribute to a significant cumulative impact with respect to air quality.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less than Significant

- None.

BIOLOGICAL RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community.*
- *The project would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- *The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

- *The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

- *The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- *The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: The project site contains suitable nesting habitat for a variety of birds. Nearly all native birds are protected by the Federal Migratory Bird Treaty Act, the California Migratory Bird Protection Act, and the California Fish and Game Code. Construction activities that occur during the nesting bird season (typically February 1 through September 30) have potential to result in the mortality/disturbance of nesting birds.

Conducting pre-construction surveys and establishing buffers would prevent or compensate for impacts on special-status bird species. Therefore, implementation of Mitigation Measure BIO-1, which would require conducting pre-construction surveys, and establishing buffers if nesting birds are found during the surveys, would effectively mitigate any impacts to nesting birds to less than significant levels.

In addition, eight existing trees in the project site have the potential to be used as nesting habitat for Swainson's hawk, a state-protected species. Construction activities that occur near the trees onsite, or that directly affect potential nesting habitat could result in "take" of Swainson's hawk. Conducting pre-construction surveys, establishing buffers, and having a qualified biologist monitoring any existing nests, as applicable, would prevent or compensate for impacts on Swainson's hawk. Therefore, implementation of Mitigation Measure BIO-2, which would require conducting pre-construction surveys, establishing buffers and monitoring, as applicable, would effectively mitigate any impacts to Swainson's hawk to less than significant levels.

Further, old pipelines present near the existing residence on the project site and along the Enterprise Canal have the potential to be used as nesting habitat by the burrowing owl, a state-protected species. Construction activities that occur near, or that directly affect, potential nesting habitat could result in "take" of burrowing owl. Conducting pre-construction surveys, establishing buffers, and passive relocation of burrowing owls under the direction of a qualified biologist, as applicable, would prevent or compensate for impacts on burrowing owl. Therefore, implementation of Mitigation Measure BIO-3 and Mitigation Measure BIO-4, which would require conducting pre-

construction surveys, establishing buffers and passive relocation, as applicable, would effectively mitigate any impacts to burrowing owls to less than significant levels.

No other special-status species were determined to have a moderate or high probability of occurrence on the project site. As such, Mitigation Measures BIO-1 through BIO-4 would reduce potential impacts to special-status species to less than significant levels.

Mitigation Measure BIO-1 ***Nesting Bird Surveys and Active Nest Avoidance.*** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 10 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.

Mitigation Measure BIO-2 ***Conduct Surveys for Swainson's Hawk Nests and Implement Avoidance and Minimization Measures.*** The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct preconstruction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records will be used to support the survey.

Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's

1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW).

If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated.

Mitigation Measure BIO-3 ***Conduct Pre-construction Clearance Surveys for Burrowing Owl***. A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site.

Mitigation Measure BIO-4 ***Passive Relocation Measures for Burrowing Owl.*** If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as

encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993).

If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

CULTURAL AND TRIBAL RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- None.

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- *The project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: No historical resources were identified within the project site. In the event that unknown resources are discovered during project construction, existing federal, State,

and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined to not be of significance by a qualified professional. Implementation of Mitigation Measure CUL-1 would require consultation with a historical resources specialist to assess whether the discovered resource qualifies as a historical resource and to identify appropriate mitigation measures, if applicable. Therefore, potential impacts related to a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 would be less than significant with mitigation.

Mitigation Measure CUL-1 ***Consultation with Qualified Historical Specialist for Resources Found During Project Construction.*** If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study.

The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the State CEQA Guidelines.

If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the State CEQA Guidelines, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study. A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center.

- *The project would cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: No archaeological resources were identified in the project site. However, there is a potential for unknown archaeological resources to be discovered during construction of the proposed project. Mitigation Measure CUL-1 requires that if unknown archaeological resources are discovered during construction, work in the area would halt and a qualified archaeologist would be contacted and consulted regarding how to appropriately address the situation. This would minimize or eliminate any potential for an adverse change to the significance of any discovered archaeological resources. Therefore, adherence to the requirements of Mitigation Measure CUL-1, described above, would reduce potential impacts from a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 to less than significant with mitigation.

- *The project would disturb human remains, including those interred outside of formal cemeteries.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 shall apply, as appropriate. Mitigation Measure CUL-2 requires adherence to Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98. With implementation of Mitigation Measure CUL-2, potential impacts related to disturbance of any human remains, including those interred outside of formal cemeteries, would be less than significant with mitigation.

Mitigation Measure CUL-2 In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.

Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

The Project Applicant shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

- *The project would result in a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: While there is no evidence to suggest the presence of tribal cultural resources, if any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resource professional. In addition, Mitigation Measure CUL-1 requires that if unknown archaeological resources are discovered during construction, work in the area would halt and a qualified archaeologist would be contacted. Further, Mitigation Measure CUL-2 would require compliance with applicable federal, State, and local laws and regulations if human remains of tribal origin are found during construction of the proposed project. Therefore, adherence to the requirements of Mitigation Measures CUL-1 and CUL-2 would reduce potential impacts related to the substantial adverse change in the significance of a tribal cultural resource to less than significant.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

ENERGY

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.*

- *The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

GEOLOGY AND SOILS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
    - *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
    - *Strong seismic ground shaking.*
    - *Seismic-related ground failure, including liquefaction.*
    - *Landslides.*
- *Result in substantial soil erosion or the loss of topsoil.*
- *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.*
- *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.*
- *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: No paleontological resources or unique geological features are known to exist within or near the project site, and the proposed project is not expected to alter or destroy a paleontological resource, site, or unique geologic feature. However, as required by Mitigation Measure GEO-1, in the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop within 50 feet of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study. Mitigation Measure GEO-1 would reduce potential impacts related to the project's potential

to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature to less than significant with mitigation.

Mitigation Measure GEO-1 If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource.

If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

GREENHOUSE GAS EMISSIONS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *None.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- ***Impact GHG-1:*** *The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: As neither the City nor the SJVAPCD has developed or adopted numeric GHG significance thresholds, the significance of GHG emissions from the project was analyzed based on the project's consistency with the 2022 Scoping Plan.

The 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions in Appendix D, Local Actions[1], of the 2022 Scoping Plan. As discussed in Appendix D of the 2022 Scoping Plan, absent consistency with an adequate, geographically specific GHG reduction plan such

[1] CARB. 2022b. *2022 Scoping Plan Appendix D Local Actions.* November. Website: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf (accessed February 2023).

as a CEQA-qualified Climate Action Plan (CAP), the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing.

The 2022 Scoping Plan recommends that a residential or mixed-use project provide EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval. Implementation of Mitigation Measure GHG-1 would be required to ensure the proposed project would provide electric vehicle charging. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this key project attribute.

Further, the project is generally consistent with all the other key attributes and recommendations from the 2022 Scoping Plan, including development in an infill site, as the project site is located in area that has been marked for development of mixed uses, is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer), and will implement design features that would reduce project VMT. Additionally, the project would result in a less-than-significant impact related to the conversion of farmland; would be consistent with the transit density criteria recommended in the Scoping Plan; would meet parking reduction requirements of the Scoping Plan; would advance State housing goals by increasing housing opportunities in the San Joaquin Valley; and would be all-electric and would not include natural gas, as recommended in the Scoping Plan.

With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related to EV charging requirements, and the proposed project would result in less-than-significant impacts related to greenhouse gas emissions.

Mitigation Measure GHG-1 In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs.

- ***Impact GHG-2:*** *The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Rationale for the Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

The project was analyzed for consistency with State GHG reduction goals, namely goals of the 2022 Scoping Plan. The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. As described above under Impact GHG-1, with implementation of Mitigation Measure GHG-1, the project would be consistent with all key attributes and goals of the 2022 Scoping Plan. Therefore,

the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and the impact would be less than significant.

- ***Impact GHG-3:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to greenhouse gas emissions.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: As presented above, the proposed project was analyzed for consistency with State GHG reduction goals in the 2022 Scoping Plan to assess significance of project GHG emissions. Based on the analysis presented above, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related to building electrification with implementation of Mitigation Measure GHG-1, the EV charging requirements. Therefore, the proposed project would have a less than significant impact. Therefore, the proposed project would not result in a cumulatively considerable impact on climate change.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None

HAZARDS AND HAZARDOUS MATERIALS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.*

- *The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.*

- *The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.*

- *The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

- *The project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and would not result in a safety hazard for people residing or working in the project area.*

- *The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

- *The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

HYDROLOGY AND WATER QUALITY

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.*
- *The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.*
- *The project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.*
- *The project would not release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone.*
- *The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (SGMA).*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

LAND USE AND PLANNING

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not physically divide an established community.*

- *The project would not cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

MINERAL RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environmental or Have a Less Than Significant Impact on the Environment

- *The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.*

- *The project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

NOISE

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact NOI-2:*** *The proposed project would not generate excessive groundborne vibration or groundborne noise levels.*

- ***Impact NOI-3:*** *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- ***Impact NOI-1:*** *The proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, State, or federal standards.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Project construction would result in short-term noise impacts on the nearby sensitive receptors. The closest sensitive receptors to the project site include single-family residential uses located approximately 55 feet east of the project site along Behymer Avenue, approximately 230 feet west of the project site, and approximately 530 southeast of the project site along Baron Avenue. An evaluation of construction noise levels at nearby sensitive receptors determined that the closest sensitive receptor may be subject to short-term maximum construction noise reaching 86 dBA L_{max} during project construction. Consistent with the City's Municipal Code Section 5.27.604, construction noises are permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday. While construction noise impacts are exempt from specific noise levels limits under the City's Municipal Code, project construction noise would result in a potentially significant impact at the nearest off-site sensitive residential use. As such, Mitigation Measure NOI-1.1 would be required to ensure that all construction equipment, fixed or mobile, is equipped with properly operating and maintained mufflers consistent with manufacturers' standards, which would reduce the potential impacts associated with construction equipment. Additionally, Mitigation Measure NOI-1.1 requires the project to designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. With implementation of Mitigation Measure NOI-1.1, the proposed project would result in a less than significant impact associated with the generation of a substantial temporary increase in ambient noise levels in the vicinity during construction.

Noise-generating uses associated with development of the proposed project would typically include vehicle traffic and operational noise, such as HVAC and pool pump equipment. Although noise level associated with off-site traffic from the project is not expected to exceed the significance threshold for perceptible noise-level increases of 3 dBA or more, and noise levels from stationary sources like HVAC equipment noise or pool pumps are not expected to exceed the City's maximum exterior noise level standards for residential uses of 50 dBA L_{eq} during nighttime hours and 55 dBA L_{eq} during daytime hours, as measured at the nearest receiving sensitive land use, noise associated with on-site project traffic would require implementation of noise insulation features in project design to fulfill the City's normally acceptable interior noise level criterion. Implementation of an HVAC system would allow windows to remain closed in order to reduce interior noise levels by 25 dBA, resulting in interior noise levels of 42 dBA CNEL, which would meet the City's interior noise standard of 45 dBA CNEL. Mitigation Measure NOI-1.2 below would include modifications to ensure that buildings would comply with the City's noise and land use compatibility standards and reduce interior noise impacts. Therefore, with implementation of Mitigation Measures NOI-1.1 and NOI-

1.2, construction and operational noise impacts associated with the proposed project would be less than significant.

Mitigation Measure NOI-1.1 The project contractor shall implement the following measures during construction of the proposed project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities.
- Ensure that all general construction related activities are restricted to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday, consistent with the City's Noise Ordinance.
- Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

Mitigation Measure NOI-1.2 The project contractor shall implement the following measures during construction of the proposed project:

- In order for windows and doors to remain closed, mechanical ventilation such as air conditioning shall be provided for all units.
- All windows and glass doors shall be rated STC 26 or higher such that the noise reduction provided will satisfy the interior noise standard of 45 dBA CNEL.

- ***Impact NOI-4:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to noise.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

As discussed above, the project would require implementation of noise reduction requirements and noise insulation features in project design to fulfill the City's normally acceptable interior noise level criterion. With implementation of Mitigation Measure NOI-1.2, interior noise levels would be reduced to 45 dBA or less and would be acceptable under the City's land use compatibility standards. Therefore, this impact would be less than significant with mitigation, and the project would not contribute to a cumulatively considerable significant noise impact.

Additionally, while construction noise impacts are exempt from specific noise levels limits under the City's Municipal Code, project construction noise would result in a potentially significant impact at the nearest off-site sensitive residential use. With implementation of Mitigation Measure NOI-1.1, which would require that construction equipment is properly equipped with mufflers consistent with manufacturers' standards, staged at the greatest distance possible from sensitive receptors, and would require the project to designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise, the proposed project would not result in adverse noise impacts from construction activities. Although the proposed project may be under construction at the same time as one or more cumulative development projects, each project would be required to implement similar measures as those identified in Mitigation Measure NOI-1.1 to ensure that construction noise levels are reduced to the extent feasible and to ensure that construction activities comply with the City's Noise Ordinance. In addition, construction-related noise impacts would be temporary and would no longer occur once construction of each project is completed. Therefore, construction activities would not be considered a cumulatively considerable contribution to the total noise environment in the project site vicinity, and this impact would be less than significant.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

POPULATION AND HOUSING

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).*

- *The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

PUBLIC SERVICES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*
    - *Fire protection?*
    - *Police protection?*
    - *Schools?*
    - *Parks?*
    - *Other public facilities?*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

RECREATION

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.*

- *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

TRANSPORTATION

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact TRA-3:*** *The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*

- ***Impact TRA-4:*** *The project would not result in inadequate emergency access.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- ***Impact TRA-1:*** *The project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.*

Finding: No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impact is considered significant and unavoidable.

The proposed project would construct bicycle and pedestrian facilities in compliance with City design requirements and with multi-modal transportation goals of the City's Active Transportation Plan or the General Plan. Additionally, the project would result in no conflict with current and planned transit facilities and routes in the City. As such, potential impacts to transit, bicycle and pedestrian facilities would be less than significant.

The Transportation Impact Analysis (TIA) prepared for the proposed project (included as Appendix G of the Draft EIR) conducted an LOS study to identify existing, near-term, and cumulative plus project and without project traffic volumes at study roadway segments and study intersections to identify if any LOS deficiencies would occur under the different scenarios analyzed. The TIA identified that LOS deficiencies would occur at four study intersections under an existing plus project scenario, nine intersections would experience LOS deficiencies under the near-term (2026) plus project scenario, and fourteen intersections would experience LOS deficiencies under the cumulative (2046) plus project scenario. Tables 9-B through 9-D of the TIA illustrate the post-improvement intersection levels of service for the different scenarios. As shown in these tables, implementation of recommended improvements would improve operations at all study intersections to operate at satisfactory LOS levels. As shown in Table 9-H of the TIA, the project would pay into the Clovis Development Impact Fee (Clovis DIF) Program and the Regional Transportation Mitigation Fee (RTMF) as applicable to fund recommended improvements. Therefore, the intersections are forecast

to operate at a satisfactory LOS with the implementation of the recommended improvements and impacts to the study intersections' LOS would be less than significant.

The TIA also identified that three roadway segments are forecast to operate at an unsatisfactory LOS under the near-term (2026) plus project scenario, and eight roadway segments are forecast to operate at an unsatisfactory LOS under the cumulative (2046) plus project scenario. All local City of Clovis study roadways segments would be able to implement improvements via payment to the Clovis DIF Program to improve operations and operate at satisfactory LOS levels.

However, the diverge segment at the SR-168 westbound Herndon Avenue Off-Ramp, under Caltrans jurisdiction, is forecast to operate at an unsatisfactory condition (LOS F) during PM peak hours under existing, near-term (2026) and cumulative (2046) conditions. As such, improvements would be required at this off-ramp location to improve traffic operations on the freeway mainline. The project would be subject to payment of to the RTMF Program for its fair share contribution to regional improvements. The RTMF is intended to ensure that future development contribute its fair share towards the costs of infrastructure to mitigate the cumulative indirect regional transportation impacts of new growth in a manner consistent with the provisions of the Mitigation Fee Act.

However, since the project has no direct control of implementing improvements at a Caltrans facility, and implementation of recommended improvements would be subject to Caltrans implementation schedule, which is unknown at this time, the LOS deficiency at this location would remain significant and unavoidable.

- ***Impact TRA-2:*** *The proposed project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b).*

Finding: No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impact is considered significant and unavoidable.

The TIA for the proposed project includes a detailed VMT analysis that follows VMT analysis methodology of the City's TIA Guidelines. As recommended in the TIA Guidelines, the VMT analysis for the project was conducted using the Fresno COG Activity Based Model (ABM). The model database was updated with the project land use to calculate project VMT. The project would have a significant VMT impact if the baseline project VMT per capita is greater than 87 percent of the baseline Fresno County VMT per capita. Based on the TIA Guidelines, baseline Fresno County VMT per capita is 16.1 and the corresponding threshold is 14.1 (which is 87 percent of 16.1). Therefore, the project would have a significant VMT impact if the project VMT per capita is greater than 14.1. Based on the Fresno COG ABM model output, the project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold. Therefore, based on the TIA Guidelines, the project would have a significant VMT impact.

When a lead agency identifies a significant CEQA impact, the agency must identify feasible mitigation measures in order to avoid or substantially reduce that impact. VMT impacts can be mitigated through more behavioral changes. Enforcement of mitigation measures will be subject to the mitigation monitoring requirements under CEQA, as well as the regular police powers of the agency. These measures can also be incorporated as a part of plans, policies, regulations, or project

designs. Project design features that encourage mode shift from automobiles to transit or nonmotorized modes can therefore help reduce project VMT as well.

As per information provided by the Project Applicant, the project intends to implement project design features that would help reduce project VMT, and VMT reduction that can be achieved by the project's design features was estimated using the most recent CAPCOA's "*Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*" (Handbook) dated December 2021[1]. These design features include pedestrian infrastructure both internal to the project site and along the project frontage, internal circulation improvements for increased street connectivity, bicycle infrastructure and improvements, and EV parking and charging infrastructure. Implementation of the above project design features may possibly reduce the project's VMT by approximately up to 4.24 percent. However, due to the nature of the project (i.e., single family residential development) and its location, which necessitates travelling off-site to access a variety of services, the project design features identified could potentially help offset some of the VMT impacts of the project but will not reduce the impact to a less than significant level. Therefore, the project will have a significant and unavoidable impact.

- ***Impact TRA-5:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to transportation.*

Finding: No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impact is considered significant and unavoidable.

The proposed project would be consistent with applicable regulations, including the City's General Plan policies and ATP guidelines as it relates to transit, bicycles, and pedestrian facilities, as described above. The proposed project would not conflict with existing and planned transit facilities in the City, and would construct bicycles, and pedestrian facilities that would increase the connectivity of the City and further implement the City's General Plan policies and meet ATP multi-modal transportation goals. The proposed project would also not include the construction of hazardous or incompatible design features in the project site. The proposed project's plans would be subject to review and approval by the CFD and the City's Engineering Division to ensure the project includes adequate emergency access.

The TIA identifies roadways that would conflict with LOS standards of the Cities of Clovis and Fresno, and Caltrans with implementation of the proposed project. In most cases, in combination with cumulative conditions, the roadways and segments would be improved to meet the standards of Clovis, Fresno, and Caltrans. However, one diverge segment in Caltrans' jurisdiction is unlikely to be improved to meet Caltrans' standards prior to implementation of the proposed project due to the project having no direct control of implementing improvements at a Caltrans facility and Caltrans' timing schedule for implementation of recommended improvements being unknown at this time. As

[1] California Air Pollution Control Officers Association's (CAPCOA). 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*. December.

discussed above, implementation of the proposed project would result in conflicts with policies related to LOS standards that would not be able to be improved due to existing constraints. As a result, a significant and unavoidable cumulative impact would occur.

Further, the proposed project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold of 14.1.

As described in detail in the TIA and the Draft EIR, VMT impacts may be mitigated through behavioral changes in travel/commute patterns. Enforcement of VMT mitigation measures will be subject to the mitigation monitoring requirements under CEQA, as well as the regular police powers of the agency. These measures can also be incorporated as a part of plans, policies, regulations, or project design features. As such, project design features should not be differentiated in general from 'mitigation measures', since the ultimate intent of project design features is also to help offset the VMT impacts.

Additionally, project VMT can only be reduced by changes in residents' behavioral pattern. Project VMT, or in general average VMT for project residents is a function of regional and project location, neighborhood and surrounding land uses, local access to amenities, availability of different modes of transportation, among others. As such, projects that are in close proximity to complementary land uses and transportation mode choices tend to exhibit low VMT trends. Given the location of the project, the project has limited options of surrounding land uses and transportation modes. As such, the project has limited options for VMT reduction through appropriate mitigation measures.

Typically, within the state of California, California Air Pollution Control Officers Association's (CAPCOA) "*Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*" dated December 2021 is recognized as a compliant source of VMT reduction measures. These measures, with the exception of the ones project would be implementing as project design features, were evaluated on comparison with the project and was estimated infeasible to implement, because of several type of constraints. As such, only after conducting an extensive review of all VMT reduction options listed in the CAPCOA manual, the EIR concluded that the project VMT impact could not be mitigated. These measures include mitigations related to land use, trip reduction programs, parking or road pricing/management, neighborhood design and transit. Measures related to trip reduction programs could only be implemented by employers and is not applicable to residential projects. Measures related to parking or road pricing/management is only applicable to multifamily residential projects.

Additionally, Clovis Transit Stageline Routes 10 and 80 operate within the Study Area. Route 10 operates from Monday through Saturday, while Route 80 operates only on school days, based on the Clovis Unified School District schedule. Route 10 provide access to Fresno State University and Route 80 provides access to the Buchanan Education Complex. Also, Fresno Area Express (FAX) Route 3 operates within the Study Area along Willow Avenue 7 days a week. The route connects communities in Fresno to the different campuses of Clovis Community College. In addition to fixed route services, Round Up is the Clovis paratransit service for disabled City residents. Round Up transit vehicles are all accessible in accordance with the Americans with Disabilities Act (ADA) standards. These are all preexisting transit services available to the Project that will help to reduce

VMT. However, further public transit options may not be feasible because they would not result in usage or ridership sufficient to reduce project VMT to any degree. The theory that an increase in transit service would result in an increase in ridership is not reflected in the research published by the Transit Cooperative Research Board's "*Analysis of Recent Public Transit Ridership Trends" (Transportation Research Board, 2020)* . The research from this analysis shows that the relationship between transit ridership and three other major factors influence ridership: 1) population, 2) transit-dependent population (i.e. zero-vehicle household, and 3) transit service levels (i.e. transit vehicle revenue miles). In dense urban areas like San Francisco where it is very densely populated and residents often do not have vehicles, transit becomes an optimal transportation option and ridership is high. Alternatively, in suburban areas such as north Clovis with lower population density and when residents often have one or more vehicle in the household, increases in ridership would not be proportional to increases in transit service. As such, while public transit facilities in the vicinity of the Project already exists, further public transportation options would merely augment existing options in a manner that is largely duplicative of those services. As a result, significantly increasing transit services available in suburban or rural areas of Clovis is not anticipated to proportionately increase the ridership of the transit. As such, given the location and settings of the project and in the absence of complementary land uses, transit ridership in this area would be limited, and will not proportionately increase by simply increasing transit service. As such, it would be unsupported and speculative to claim that VMT per capita would be significantly reduced more than is already reflected in the Draft EIR by oversaturating transit services in an area that would not fully absorb the saturated transit available. The VMT analysis appropriately assumes a correct level of transit usage.

The project, as described in the TIA and Draft EIR, includes all feasible land use related and neighborhood design related mitigation measures as project design features. These project design features could reduce project's VMT by up to 4.24 percent, this potential reduction would not help the project meet the required threshold of 14.1 VMT per capita.

As a result, a significant and unavoidable VMT impact would occur.

UTILITIES AND SERVICE SYSTEMS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.*

- *The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.*

- *The project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.*

- *The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.*

- *The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

WILDFIRE

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Substantially impair an adopted emergency response plan or emergency evacuation plan.*

- *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.*

- *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.*

- *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

MITIGATION MONITORING

An MMRP was prepared for the project and approved by the City (PRC Section 21081.6, Subd. [a][1]; CEQA Guidelines Section 15097). The City will use the MMRP to track compliance with the project mitigation measures. The MMRP will remain available for public review during the compliance period.

SIGNIFICANT IRREVERSIBLE ENVIRONMENT EFFECTS

The State CEQA Guidelines (Section 15126) require a discussion of the significant irreversible environmental changes that would be involved in a project should it be implemented. The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms.

CEQA requires that EIRs assess whether the proposed project would result in significant irreversible changes to the physical environment. The CEQA Guidelines discuss three categories of significant irreversible changes that should be considered. Each is addressed below.

As mandated by the CEQA Guidelines, an EIR must address any significant irreversible environmental change that would result from project implementation. According to Section 15126.2(d) of the CEQA Guidelines, such a change would occur if one of the following scenarios is involved:

- The project would involve a large commitment of nonrenewable resources;
- Irreversible damage would result from environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project would result in the wasteful use of energy).

The environmental effects of the proposed project are thoroughly discussed in Section 4.0, Evaluation of Environmental Impacts, and summarized in the Executive Summary. Implementation of the project would require the long-term commitment of natural resources, as discussed below.

Changes in Land Use Which Commit Future Generations

The proposed project would involve the development of land in the project site currently used for agricultural production. Although the proposed development would commit future generations to using the project site for developed uses rather than agricultural purposes, such a commitment is consistent with planned residential uses for the project site, as identified in the City's General Plan. The General Plan has anticipated development in the project site that commits future generations, which was assessed under the General Plan EIR; the proposed project merely implements and carries out the vision of the General Plan (Draft EIR, page 6-2).

Irreversible Damage from Environmental Accidents

Demolition and construction activities associated with implementation of the proposed project would involve some risk for environmental accidents. However, as discussed in Section 3.9, Hazards and Hazardous Materials, of the Initial Study, accidental spills and soil contamination would be addressed by City, State, and federal agencies, and would follow professional industry standards for safety and construction. Although there is a possibility for contaminated soil to be encountered during grading, excavation, and/or ground disturbance associated with implementation of the proposed project, it is likely that such contamination may have resulted from agricultural operations within the project site. However, the risks of accidental contamination from handling construction

materials or transport of these materials off site would be reduced to a less-than-significant level through compliance with the many federal, State, and local regulations regarding the handling and disposal of such construction materials. Additionally, the residential land use proposed by the proposed project would not include any uses or activities that are likely to contribute to or be the cause of a significant environmental accident, such as industrial-related spills or leaks. As a result, the proposed project would not pose a substantial risk of environmental accidents (Draft EIR, page 6-2 and 6-3).

Consumption of Nonrenewable Resources

Approval and implementation of actions related to development of the project would result in an irretrievable commitment of nonrenewable resources such as energy and construction materials. As discussed in Section 3.6, Energy, of the Initial Study, the projected electricity demands of the proposed project would be consistent with typical usage rates for residential uses in the City of Clovis, and would not result in a significant adverse impact related to the provision of electricity. Therefore, the projected demand of the proposed project would not result in a significant adverse impact related to the provision of electricity.

In addition, the proposed project would comply with Title 24 of the CCR, which requires conservation practices that would limit the amount of energy (California Energy Code Building Energy Efficiency Standards [Title 24, Part 6]) consumed through implementation of the proposed project, as well as with all applicable California Green Building Standards Code (CALGreen Code) building efficiency standards (Title 24, Part 11) and mandatory residential building requirements in the California Energy Code Building Energy Efficiency Standards (Title 24, Part 6) (as required by State law).

Furthermore, implementation of the proposed project would also result in an increased demand for potable water and generation of wastewater. As discussed in Section 3.10, Hydrology and Water Quality, and Section 3.19 Utilities and Service Systems, the project is consistent with growth under the City's General Plan and covered under the City's 2020 Urban Water Management Plan Update. The proposed project would have sufficient water supplies available to meet future demand during normal, dry and multiple dry years. The adequacy of the water supply for the project is thus consistent with the basis of the analysis of the City's water supply in the adopted 2020 Urban Water Management Plan Update.

Although the construction and operation of the proposed project would involve the use of non-renewable resources, through the inclusion of energy-conserving features of the proposed project, and compliance with applicable standards and regulations, the proposed project would not represent an unjustified use of such non-renewable resources (Draft EIR, page 6-3).

GROWTH INDUCEMENT

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project or the construction of additional housing, either directly or indirectly, could foster economic or population growth in the surrounding environment.

As described in Section 3.14, Population and Housing, of the Initial Study prepared for this EIR, implementation of the proposed project would not exceed the City's projections for population growth in the project site, as the project site is located within the Heritage Grove Area, a planned growth area identified in the General Plan. As such, additional housing units and population resulting from implementation of the proposed project have been anticipated by the City and do not exceed projections of the City. Development of the proposed project would involve construction activities that could generate some temporary employment opportunities. However, given the temporary nature of such opportunities, it is unlikely that construction workers would need to relocate to the City or nearby communities. Thus, the proposed project would not be considered growth-inducing from an employment perspective, and the proposed project would not induce substantial unplanned population growth in the City, either directly or indirectly. This impact would be considered less than significant.

As discussed in Section 3.15, Public Services, and Section 3.19, Utilities and Service Systems, of the Initial Study, the project site would be served by the City's public service or utility providers, including police protection services, fire prevention services, water, wastewater, telecommunications, electricity, and natural gas. The proposed project includes physical improvements to accommodate growth which would create an increased demand for public services and utilities within the project site. As the project site is currently not annexed to the City, the Project Applicant would be required to complete the annexation process with the Fresno County Local Agency Formation Commission (Fresno LAFCO) and the City, and pay required processing fees for the annexation process. Once the project site is annexed into the City, to address impacts to public services and utilities, the Project Applicant would be required to pay applicable impact fees in effect at the time the development application for the proposed project is submitted. City staff would review the site plan for the project to ensure the adequate provision of public services and utilities. As the project site is located within the Heritage Grove Area, a planned growth area identified in the General Plan, and installation of infrastructure and provision of services would accommodate planned growth in the project site, the provision of services and construction of utilities' infrastructure for the proposed project would not induce substantial unplanned population growth in Clovis, either directly or indirectly, and this impact would be less than significant.

Development of the proposed project would involve construction activities that could generate some temporary employment opportunities. However, given the temporary nature of such opportunities, it is unlikely that construction workers would need to relocate to the City or other communities near the project site because of the proposed project. Thus, the proposed project would not be considered growth-inducing from an employment perspective (Draft EIR, page 6-1 and page 6-2).

PROJECT ALTERNATIVES

Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

An alternative may be "infeasible" if it fails to achieve the lead agency's underlying goals and objectives with respect to the project. Thus, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors" of a project (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 401, 417).

ALTERNATIVES CONSIDERED IN THE EIR

The following alternatives to the project are evaluated in detail in the EIR, as described below:

- **Alternative 1: No Project Alternative:** Under the No Project Alternative, the project site would not be developed, and existing land uses would remain. No modifications to existing site access or infrastructure would occur, and the annexation of 246 acres to the City of Clovis would not occur.

- **Alternative 2: Reduced Project Alternative:** Under the Reduced Project Alternative, the proposed project would reduce the proposed density of 8.25 dwelling units per acre for (DU/acre) for the proposed project to 4.12 DU/acre, for a total of 295 residential units. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project. Annexation 246 acres, as proposed by the project would occur.

- **Alternative 3: Increased Phase Density Alternative:** Under the Increased Phase Density Alternative, 590 residential units would be constructed within the 71.54-acre project site, but the residential units would be constructed on approximately 24 acres on northern portion of the project site and 24 acres on the southern portion of the project site to reduce the overall construction period. The remaining approximately 23 acres of the project would be developed as public open space. Overall density of the project site would remain the same as the proposed project (8.25 DU/acre), but each 24-acre development area would have density of 12.3 DU/acre. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project. Annexation 246 acres, as proposed by the project would occur.

Alternative 1: No Project Alternative

The No Project Alternative would avoid all of the less than significant and significant unavoidable impacts of the proposed project. However, the No Project Alternative would also not achieve any of the objectives of the proposed project. The No Project Alternative would not: (a) provide residential housing opportunities that are visually attractive and accommodate future housing demand in

Clovis; (b) establish a mixture of housing types, sizes, and densities that collectively provide for local and regional housing demand; (c) implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; provide infrastructure that meets City Standards and is integrated with existing and planned facilities and connections; and (d) develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would involve reducing the size of the proposed project by reducing the proposed residential density of 8.25 DU/acre in the site to a density of 4.12 DU/acre, and reducing the total proposed residential units from 590 to 295. The Reduced Project Alternative would partially address the City of Clovis' future housing demand by providing a lower amount of visually attractive residential housing opportunities; partially meet local and regional housing demand by providing a single housing type, size and density; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. However, because this alternative would provide half of the residential units and minimize mixture of housing types of the proposed project, this alternative would partially meet the objectives of the project.

Alternative 3: Increased Phase Density Alternative

The Increased Phase Density Alternative would involve focusing development of the proposed 590 single-family residences, but the development would occur in two, approximately 24-acre areas located in the southern and northern portions of the project site. The central portion of the project site, approximately 23 acres in size, would be developed as open space. The Increased Phase Density Alternative would accommodate future housing demands in Clovis by providing visually attractive single-family residences; partially provide for local and regional housing demand by establishing a single housing type, size, and density to accommodate higher residential density on the project site. Additionally, this alternative implements the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provides integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. Because this alternative would provide the same number of units, but would minimize mixture of housing types included in the proposed project, this alternative would partially meet the objectives of the project.

Environmentally Superior Alternative

The No Project Alternative has the least impact to the environment because it would not result in any development or new physical impacts. While this alternative would lessen or avoid the impacts of the proposed project, the beneficial impacts of the proposed project—including creating housing to meet local and regional housing demands—would not occur. Further, none of the Project Objectives would be met, including providing residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis; establishing a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand; implementing the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; providing infrastructure that meets City Standards and is integrated with existing and

planned facilities and connections; and developing a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements. As such, this alternative is rejected as infeasible. In addition, under CEQA, if the No Project Alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives (*CEQA Guidelines* Section 15126.6(e)(2)).

The Increased Phase Density Alternative would result in similar impacts to the proposed project under most resource topics, except Energy, Greenhouse Gas Emissions, and Noise. Under this alternative, construction Energy impacts would be fewer than the proposed project due to reduced construction duration due to increased density on the northern and southern portions of the project site, resulting in lower construction energy impacts. Additionally, operational impacts related to Greenhouse Gas Emissions would be fewer under this alternative due to the higher density development proposed. In terms of Noise impacts, this alternative would result in shorter overall construction period, which would reduce the duration of noise-generating construction. Under this alternative, project objectives would be partially met, as this alternative would partially provide for local and regional housing demand by establishing a single housing type, size, and density to accommodate higher residential density on the project site; accommodate future housing demands in Clovis by providing visually attractive single-family residences; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. Further, this alternative would not be able to reduce the significant and unavoidable impact to Transportation to a less than significant level, because the significant and unavoidable LOS and VMT impacts that would result from the proposed project could still occur. As such, this alternative is rejected as infeasible.

The Environmentally Superior Alternative would be the Reduced Project Alternative. Overall, this alternative would lessen significant and less-than-significant environmental impacts or result in impacts similar to those associated with the proposed project. The Reduced Project Alternative would partially achieve Project Objectives, as it would partially address the City of Clovis' future housing demand by providing a lower amount of visually attractive residential housing opportunities; partially meet local and regional housing demand by providing a single housing type, size and density; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. However, this alternative would also not be able to reduce the significant and unavoidable LOS and VMT impacts that were identified for the proposed project. As such, this alternative is rejected as infeasible.

This page intentionally left blank

STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to Section 21081 of the California Public Resources Code and Section 15093 of the CEQA Guidelines, the City adopts and makes the following statement of overriding considerations regarding the remaining significant unavoidable impacts of the project, as discussed above, and the anticipated economic, social, and other benefits of the project.

The City has carefully considered and balanced the benefits of the proposed project against its unavoidable environmental risks in determining that the specific economic, legal, social, technological, or other benefits outweigh the unavoidable significant adverse environmental effects related to transportation. Section 15093(b) of the State CEQA Guidelines provides that when the decision of the public agency results in the occurrence of significant impacts that are identified in the EIR, the agency must state in writing the reasons to support its actions based on the EIR and/or other information in the record. The reasons set forth below are based on the EIR and other information in the record.

This Statement of Overriding Considerations is based on the City's review of the Draft EIR, Final EIR, and other information in the administrative record. Based upon the City's review and the substantial evidence in the administrative record, including but not limited to the EIR, the City finds that the benefits of the project outweigh its unavoidable adverse environmental effects, and furthermore, finds that such adverse, environmental effects are acceptable. The City also finds and determines that (1) the majority of the significant impacts of the project will be reduced to less-than-significant levels by implementation of the mitigation measures recommended in these findings; (2) the City's approval of the project as proposed will result in certain significant adverse environmental effects that cannot be avoided or reduced to a less-than-significant level even with the incorporation of all feasible mitigation measures into the project; and (3) there are no other feasible mitigation measures or feasible project alternatives that will further mitigate, avoid, or reduce to a less-than significant level the remaining significant environmental effects.

In light of the environmental, social, economic, and other considerations identified in the findings for the project, the objectives of the project, and the considerations set forth below related to this project, the City chooses to approve the project because, in its view, the economic, social, technological, and other benefits resulting from the project substantially outweigh the project's significant and unavoidable adverse environmental effects.

The benefits and reasons for the approval of the project despite the occurrence of significant unavoidable project impacts related to transportation (Impact TRA-1 – conflict with a program, plan, ordinance or policy addressing the circulation system; Impact TRA-2 – VMT impacts), which create or otherwise contribute to related cumulative impacts, consist of the items listed below.

The substantial evidence supporting the enumerated benefits of the project can be found in the preceding findings, which are herein incorporated by reference; in the project itself; and in the record of proceedings as defined above. Each of the overriding considerations set forth below constitutes a separate and independent ground for finding that the benefits of the project outweigh its significant adverse environmental effects and is an overriding consideration warranting approval

The City finds that the project will have the following economic, social, technological, and environmental benefits, which constitute overriding considerations:

- **The project would address the existing housing shortage in the City of Clovis and in Fresno County, by providing a variety of new housing types that can support the growing needs of the community.**

  The City of Clovis, like many other communities in Fresno County and California, is experiencing a housing shortage. The proposed project would provide approximately 590 new residential units, helping to address this demand. Ensuring that residents have access to suitable housing options is crucial for maintaining a healthy and balanced housing market. As such, the inclusion of different housing types, sizes, and densities in the project would also support the establishment of a vibrant and diverse community in the City, allowing individuals and families of varying needs and financial capacities to find housing that suits them.

- **The project would establish infrastructure improvements that would fulfill existing phased infrastructure plans in place to support fulfillment of the City's General Plan.**

  The project would result in the construction of new infrastructure to integrate the project site with existing utility facilities and service systems in the City, consistent with the City's design standards. These improvements are crucial for enhancing the overall livability and functionality of the project site. Furthermore, the project aligns with the City's phased infrastructure plans outlined in the 2014 Master Service Plan, the 2017 Water Master Plan, the 2017 Wastewater Master Plan, and the 2017 Recycled Water Master Plan. By providing needed connections to the City's service network, these improvements would support the future development of the Heritage Grove area as a whole, minimizing potential disruptions during construction and ensuring the timely and sustainable fulfillment of the needs of planned mixed-use developments in Heritage Grove.

- **The project would carry out the intent of the City's General Plan of developing the Heritage Grove Area.**

  The project aligns with the City's General Plan, specifically the development objectives for the Heritage Grove area. This area is designated for growth and development in the General Plan, with a focus on creating a sustainable and livable community. The project's development for residential use is consistent with the goals and objectives for Heritage Grove, contributing to the long-term development goals envisioned for the City. This ensures that the project not only provides immediate benefits by addressing housing and infrastructure needs but also contributes to the City's overall vision for sustainable growth and development.

Based on the detailed findings made above, the City hereby finds that economic and social considerations outweigh the remaining environmental effects of approval and implementation of the project.

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study (IS) and Environmental Impact Report (EIR) prepared for Tract Map 6343 (herein referred to as the project), for which the City of Clovis (City) is the Lead Agency for environmental review under the California Environmental Quality Act (CEQA). The MMRP, which is provided in Table A, lists mitigation measures recommended in the IS and EIR for the proposed project and identifies mitigation monitoring requirements.

This MMRP has been prepared to comply with the requirements of State law (Public Resources Code Section 21081.6). State law requires the adoption of an MMRP when mitigation measures are required to avoid significant impacts. This requirement facilitates implementation of all mitigation measures adopted through the CEQA process. The MMRP is intended to ensure compliance during implementation of the project.

The MMRP is organized in a matrix format. The first column identifies the mitigation measure. The second column, entitled "Timing for Mitigation Measure," refers to the implementation and schedule of mitigation measures. The third column, entitled "Mitigation Responsibility," refers to the party responsible for implementing the mitigation measure. The fourth column, entitled "Monitoring/Reporting Agency," refers to the agency responsible for oversight or ensuring that the mitigation measure is implemented. The fifth column, entitled "Verification," will be initialed and dated by the individual designated to verify adherence to the project specific mitigation, when the mitigation measure is completed.

Attachment B

This page intentionally left blank

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
4.1: AGRICULTURE AND FORESTRY RESOURCES				
Mitigation Measure AG-2: Prior to issuance of building permits, the Project Applicant shall petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County of Fresno determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the County of Fresno Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.	Prior to issuance of a building permit	Project Applicant	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____
The following is not a mitigation measure; however compliance with the Regulatory Compliance measure outlined below would still be required for the project. **Regulatory Compliance Measure AG-3:** Pursuant to California Civil Code 3482.5 and Fresno County Ordinance Code §17.04.100, prior approval of building occupancy permits, the Project Applicant shall provide residents of the project site Right-To-Farm notifications. The Right-To-Farm notification would advise future occupants of the project site that they are residing adjacent to agricultural land that has been active for 3 or more years and that they should expect continued activities associated with agricultural production. The Right-to-Farm notice shall include the following:	Prior to issuance of a building occupancy permit	Project Applicant	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
● It is the declared policy of Fresno County to preserve, protect, and encourage development of its agricultural land and industries for the production of food and other agricultural products. Residents of property in or near agricultural districts or agriculturally zoned land or active agricultural land should be prepared to accept the inconveniences and discomfort associated with normal farm activities. Such inconveniences and discomfort could include but is not limited to the following: Dust generation, heavy equipment operation, noise from heavy equipment operation, dust cropping activity using aircraft, insecticide/pesticide application, no trespassing signage posted on active agricultural land, and the use of crop warmers during cold nights. Consistent with California Civil Code 3482.5 (right-to-farm law), this Right-To- Farm notification provides that an agricultural pursuit, as defined, maintained for commercial uses shall not be or become a nuisance to adjacent land occupied by non-agricultural uses due to a changed condition in a locality after such agricultural pursuit has been in operation for three years.				
4.2: AIR QUALITY				
The following is not a mitigation measure; however compliance with the Regulatory Compliance measure outlined below would still be required for the project. **Regulatory Compliance Measure AIR-2:** Consistent with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site: ● All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.	Prior to issuance of grading permits, during project construction	Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
• All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. • When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.				
4.3: GREENHOUSE GAS EMISSIONS				
Mitigation Measure GHG-1: In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs.	Prior to issuance of grading permits	Project Applicant	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
4.4: NOISE				
Mitigation Measure NOI-1.1: The project contractor shall implement the following measures during construction of the proposed project: ● Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. ● Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site. ● Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities. ● Ensure that all general construction related activities are restricted to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday, consistent with the City's Noise Ordinance. ● Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.	Prior to issuance of grading permits, during project construction	Construction Contractor	City of Clovis Planning and Development Services Department	Initials:_____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
Mitigation Measure NOI-1.2: The project contractor shall implement the following measures during construction of the proposed project: ● In order for windows and doors to remain closed, mechanical ventilation such as air conditioning shall be provided for all units. ● All windows and glass doors shall be rated STC 26 or higher such that the noise reduction provided will satisfy the interior noise standard of 45 dBA CNEL.	During project construction	Construction Contractor	City of Clovis Planning and Development Services Department	Initials:_____ Date:_____
Initial Study				
BIOLOGICAL RESOURCES				
Mitigation Measure BIO-1. Nesting Bird Surveys and Active Nest Avoidance. Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 10 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.	Prior to project construction, if occurring between February 1 to September 30	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
Mitigation Measure BIO-2: Conduct Surveys for Swainson's Hawk Nests and Implement Avoidance and Minimization Measures. The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct preconstruction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records will be used to support the survey. Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW).	Prior to project construction, if occurring between February 1 and August 31	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated.				
Mitigation Measure BIO-3: Conduct Pre-construction Clearance Surveys for Burrowing Owl. A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site.	Prior to issuance of grading permits	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____
Mitigation Measure BIO-4: Passive Relocation Measures for Burrowing Owl. If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines	Prior to project construction, if burrowing owl are detected during the pre-construction surveys	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993). If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.				

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
The following is not a mitigation measure; however compliance with the Regulatory Compliance measure outlined below would still be required for the project. **Regulatory Compliance Measure BIO-1: Agency Coordination for Enterprise No. 109 Canal.** Prior to any modifications to Enterprise No. 109 Canal, it is recommended to consult with the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). If direct modifications to the canal are proposed, a notification of streambed alteration shall be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE shall be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Enterprise No. 109 Canal modifications.	Prior to issuance of grading permits	Project Applicant	City of Clovis Planning and Development Services Department/United States Army Corps of Engineers (USACE)/California Department of Fish and Wildlife (CDFW)/Regional Water Quality Control Board (RWQCB)	Initials: _____ Date:_____
CULTURAL RESOURCES				
Mitigation Measure CUL-1: Consultation with Qualified Historical Specialist for Resources Found During Project Construction. If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and	Prior to and during project construction, if historic or archeological resources are encountered	Construction Contractor, Qualified Historical Resources Specialist and Qualified Archaeologist	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
evaluation of the finds in accordance with Section 15064.5 of the *State CEQA Guidelines*. If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the *State CEQA Guidelines*, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study. A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center.				
Mitigation Measure CUL-2 In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.	During project construction, if human remains are encountered	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Project Applicant shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.				
GEOLOGY AND SOILS				
Mitigation Measure GEO-1: If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource. If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.	Prior to and during project construction, if paleontological resources are encountered	Construction Contractor, Project Applicant and Qualified Paleontologist	Department of Planning and Development	Initials: _____ Date:_____

This page intentionally left blank

RESOLUTION 24-__

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS RECOMMENDING THAT THE CITY COUNCIL APPROVE GENERAL PLAN AMENDMENT 2021-003 AMENDING THE LAND USE ELEMENT FOR APPROXIMATELY 71.54 ACRES LOCATED NEAR THE SOUTHWEST AREA OF BEHYMER AVENUE AND THE SUNNYSIDE AVENUE ALIGNMENT

WHEREAS, Wilson Premier Homes, Inc. 7550 N. Palm Avenue, Suite 102, Fresno, CA 93711, has applied for a General Plan Amendment (GPA) 2021-003; and

WHEREAS, The Applicant submitted an application for a General Plan Amendment to amend the General Plan to re-designate land from the Medium Density Residential (4.1 to 7.0 DU/ Ac) land use designation to the Medium High Density Residential (7.1 to 15.0 DU/Ac) land use designation to allow for the construction of 590 single-family homes within the Project site, in the County of Fresno, California; and

WHEREAS, the proposed GPA 2021-003, was assessed under the provisions of the California Environmental Quality Act (CEQA) and the potential effects on the environment were considered by the Planning Commission, together with comments received and public comments, and the entire public record was reviewed; and

WHEREAS, the Planning Commission does recommend that the City Council certify the Final Project Environmental Impact Report for the TM 6343 Project; adopt of CEQA Findings of Fact and a Statement of Overriding Consideration; and adopt a Mitigation Monitoring and Reporting Program for GPA 2021-003; and

WHEREAS, a public notice was sent out to area residents within 800 feet of said property boundaries, ten (10) days prior to said hearing; and

WHEREAS, a duly noticed hearing was held on April 18, 2023; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Project, which is on file with the City of Clovis Department of Planning and Development Services (“Department”), and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing.

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Planning Commission hereby recommends approval of GPA 2021-003.

2. The Project satisfies the required findings for approval of a general plan amendment, as follows:

   a. GPA 2021-003 is internally consistent with the goals, policies, and actions of the General Plan.

   b. GPA 2021-003 would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.

   c. There is a compelling reason for the amendment, as the proposal will provide a diversity in housing types and a quality residential environment for this area, adjacent to the Heritage Grove growth area.

3. The basis for the findings is detailed in the April 18, 2024 staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on April 18, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-__
DATED: April 18, 2024

_____
Alma Altuna, Chair

ATTEST: _____
Renee Mathis, Secretary

RESOLUTION 24-__

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS RECOMMENDING THAT THE CITY COUNCIL APPROVE A PREZONE OF APPROXIMATELY 246 ACRES FROM THE FRESNO COUNTY AE20 ZONE DISTRICT TO THE CLOVIS R-1-PRD, R-1, R-A, O, AND PF ZONE DISTRICTS FOR PROPERTIES LOCATED NEAR THE SOUTHWEST AREA OF BEHYMER AVENUE AND THE SUNNYSIDE AVENUE ALIGNMENT

LEGAL DESCRIPTION:

See the attached **Exhibit "One."**

WHEREAS, Wilson Premier Homes, Inc. 7550 N. Palm Avenue, Suite 102, Fresno, CA 93711 ("Applicant"), has applied for a Prezone 2021-006; and

WHEREAS, the Applicant's request is to prezone approximately 71.54 acres from the Fresno County AE20 Zone District to the Clovis R-1-PRD Zone District in conjunction with its proposal to annex the subject property and develop the TM6343 project, which would subdivide the subject property into approximately 590 residential lots; and

WHEREAS, after consultation with the Fresno Local Agency Formation Commission (LAFCO) regarding the Applicant's proposal, the annexation boundary was expanded to encompass approximately 246 acres to create a logical boundary, creating the need to expand the rezoning application to include the full annexation boundary, including prezoning properties to the R-A, R-1, O, and PF Zone Districts ("Prezone"); and

WHEREAS, the Planning Commission considered the CEQA analysis outlined in the staff report, which is incorporated by reference herein, and elsewhere in the Administrative Record which determines that the Prezone meets the requirements pursuant to CEQA Guidelines and recommends that the City Council certify the Final Project Environmental Impact Report for the TM 6343 Project; adopt the CEQA Findings of Fact and a Statement of Overriding Consideration; and adopt a Mitigation Monitoring and Reporting Program; and

WHEREAS, a public notice was sent out to area residents within 800 feet of said property boundaries ten (10) days prior to said hearing; and

WHEREAS, the Prezone is in keeping with the intent and purpose of the Zoning Ordinance; and;

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Prezone, which is on file with the City of Clovis Department of Planning and Development Services, and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written

materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing.

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Clovis Planning Commission recommends the City Council approve Prezone 2021-006.

2. The Project satisfies the required findings for approval of a general plan amendment, as follows:

   a. The proposed Prezone is consistent with the goals, policies, and actions of the General Plan; and

   b. The proposed Prezone would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.

   c. The parcel is physically suitable (including absence of physical constraints, access, and compatibility with adjoining land uses, and provision of utilities) for the requested prezoning designations and anticipated land uses/projects.

3. The basis for the findings is detailed in the April 18, 2024 staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

NOW, THEREFORE, BE IT RESOLVED that the Clovis Planning Commission recommends the City Council approve Prezone 2021-006.

* * * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on April 18, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

CLOVIS PLANNING COMMISSION RESOLUTION NO. 24-__
DATED: April 18, 2024

_____
Alma Altuna, Chair

ATTEST: _____
Renee Mathis, Secretary

Exhibit "A"
AE-20 TO R-1-PRD

Those portions of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian, in the County of Fresno, State of California, described as follows:

Parcels 1 and 2 of Parcel Map No. 3488, in the County of Fresno, State of California, according to the map thereof recorded in Book 23 of Parcel Maps at Page 74, Fresno County Records.

TOGETHER WITH Adjusted Parcel "A" as described in Grant Deed recorded September 8, 2021 as Document No. 2021-0146954, Official Records of Fresno County, more particularly described as follows:

BEGINNING at the Northeast corner of the Southeast quarter of the Northwest quarter of said Section 20; thence South 00°11'32" East, along the East line of the Southeast quarter of the Northwest quarter of said Section 20, a distance of 1323.85 feet to the center quarter corner of said Section 20; thence 00°08'35" East, along the East line of the Southwest quarter of said Section 20, a distance of 591.29 feet; thence leaving last said East line, South 79°46'00" West, a distance of 272.20 feet; thence South 84°46'13" West, a distance of 159.90 feet; thence South 89°25'15" West, a distance of 159.93 feet to the beginning of a 175.00 foot radius tangent curve concave Northeasterly; thence Northwesterly along said curve, through a central angle of 74°01'42", an arc distance of 226.11 feet; thence North 16°33'03" West, a distance of 355.48 feet; thence North 04°28'27" West, a distance of 241.23; thence North 04°53'18" West, a distance of 180.24 feet; thence North 00°11'32" West, a distance of 492.40 feet to the beginning of a 280.00 foot radius tangent curve concave Southeasterly; thence Northeasterly, along said curve, through a central angle of 2°33'24", an arc distance of 129.78 feet; thence North 26°21'51" East, a distance of 342.65 feet, to the beginning of a 220.00 foot radius tangent curve concave Northwesterly; thence Northeasterly along said curve, through a central angle of 26°33'24", an arc distance of 101.97 feet; thence North 00°11'32" West, a distance of 72.67 feet, to a point on the North line of the Southeast quarter of the Northwest quarter of said Section 20; thence South 89°49'32" East, along said North line, a distance of 683.80 feet and the **POINT OF BEGINNING.**

TOGETHER WITH a non-exclusive private road easement, described as follows:

The West 30.00 feet of the North 98.85 feet of Parcel 2 of Parcel Map No. 3488, according to the map thereof recorded in Book 23 of Parcel Maps at Page 74, Fresno County Records and the West 30.00 feet of Parcel 1 of said Parcel Map No. 3488.

8-8-23

Attachment 3 - Exhibit 1

EXHIBIT "B"

NORTHWEST CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

NORTH QUARTER CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

NORTHEAST CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

EAST BEHYMER AVENUE

NORTH MINNEWAWA AVENUE

NORTH SUNNYSIDE AVENUE

LEGEND

INDICATES AREA TO BE REZONED FROM AE-20 TO R-1-PRD

PARCEL 1 OF PARCEL MAP No. 3488 RECORDED IN BOOK 23 OF PARCEL MAPS AT PAGE 74, FRESNO COUNTY RECORDS.

PARCEL 2 OF PARCEL MAP No. 3488 RECORDED IN BOOK 23 OF PARCEL MAPS AT PAGE 74, FRESNO COUNTY RECORDS.

POINT OF BEGINNING: THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20.

N00°11'32"W 72.67'

S89°49'32"E 683.80'

Δ=26°33'24"
R=220.00'
A=101.97'

N26°21'51"E 342.65'

Δ=26°33'24"
R=280.00'
A=129.78'

GRANT DEED RECORDED SEPTEMBER 8, 2021 AS DOCUMENT No. 2021-0146954, OFFICIAL RECORDS OF FRESNO COUNTY.

N00°11'32"W 492.40'

N04°53'18"W 180.24'

S04°28'27"E 241.23'

N16°33'03"W 355.48'

Δ=74°01'42"
R=175.00'
A=226.11'

S89°25'15"W 159.93'

N84°46'13"E 159.90'

S79°46'00"W 272.20'

S00°11'32"E 1323.85'

S00°08'35"E 591.29'

CENTER QUARTER CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

SCALE: 1" = 400'

0' 400' 800'

PROFESSIONAL LAND SURVEYOR
AARON D. SPRAY
P.L.S. 9484
STATE OF CALIFORNIA

8-8-23

20-089/6343
REZONE

DIXON & ASSOCIATES, INC.
LAND SURVEYING
620 DEWITT, #101
CLOVIS, CALIFORNIA, 93612
PH: (559)297-4200 FAX: (559)297-

Legal Description

APN:556-050-35(portion)

Proposed Zone R-1 - PRD

The South Half of the Northeast Quarter of the Southwest Quarter of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian, in the Unincorporated Area, County of Fresno, State of California, according to the Official Plat thereof.

EXCEPTING THEREFROM all that portion of the South Half of the Northeast Quarter of the Southwest Quarter of said Section 20, described as follows:
BEGINNING at the Southeast Corner of the South Half of the Northeast Quarter of said Southwest Quarter; thence North 89°16'35" West, 180.85 feet along the South line of the Northeast Quarter of said Southwest Quarter to the beginning of a non-tangent curve concave to the Southwest having a radius of 1250.00 feet and to which beginning of said non-tangent curve a radial line bears North 59°12'38" East; thence Northwesterly, 8.13 feet along said non-tangent curve through a central angle of 0°22'22"; thence North 56°19'26" East, 223.50 feet to a point on the East line of the Northeast Quarter of said Southwest Quarter; thence South 0°24'56" West, 133.19 feet along said East line to the POINT OF BEGINNING.

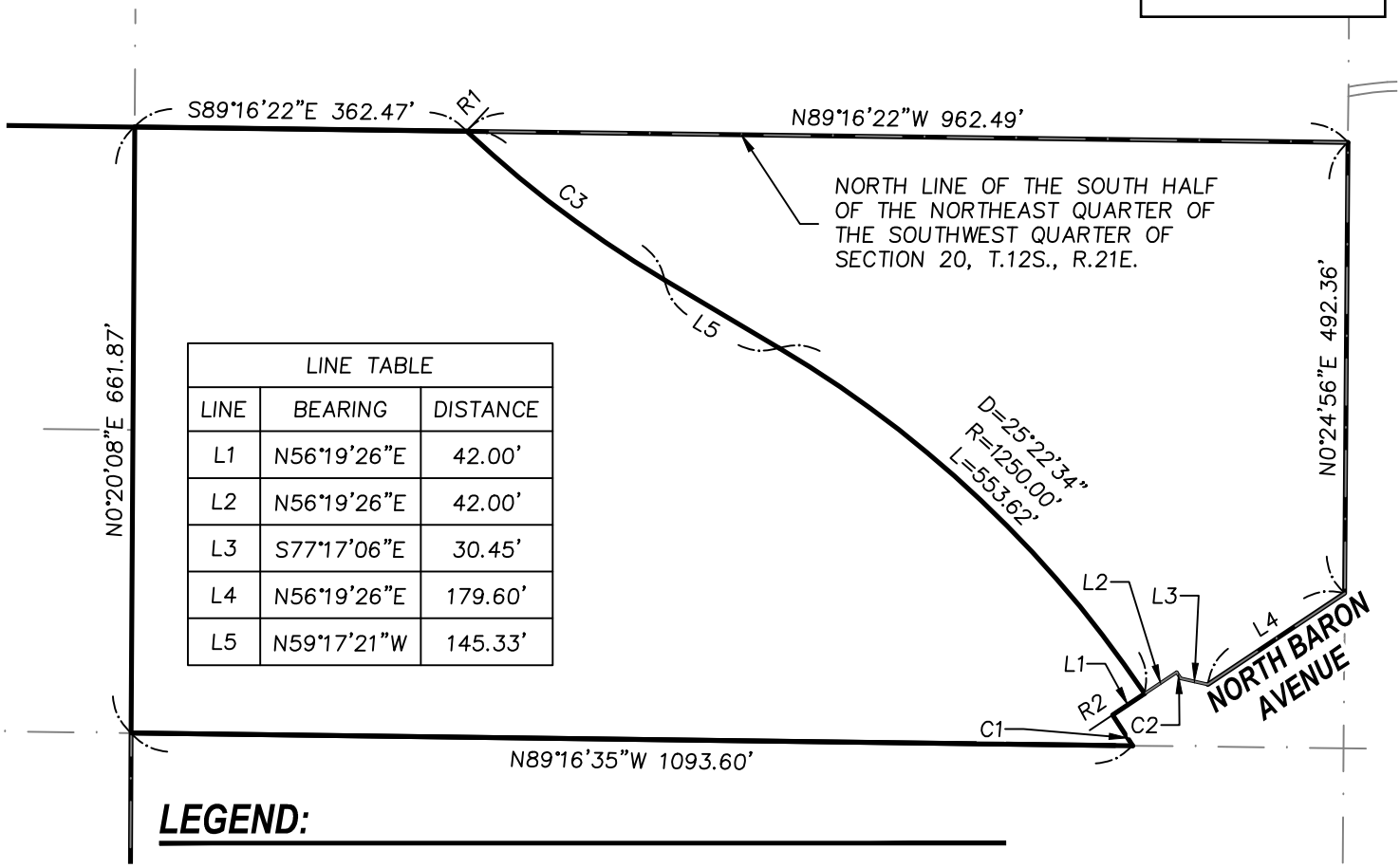
ALSO EXCEPTING THEREFROM all that portion of the South Half of the Northeast Quarter of the Southwest Quarter of said Section 20, described as follows:

COMMENCING at the Southeast Corner of said South Half; thence
North 0°24’56” East, 169.41 feet along the East line of said South Half to the TRUE POINT OF BEGINNING; thence
North 0°24’56” East, 492.36 feet continuing along said East line to the North line of said South Half; thence
North 89°16’22” West, 962.49 feet, along said North line, to the beginning of a non-tangent curve concave to the Northeast having a radius of 1250.00 feet and to which beginning of said non-tangent curve a radial line bears South 43°08'34" West; thence
Southeasterly, 271.22 feet along said non-tangent curve through a central angle of 12°25'55"; thence
South 59°17’21” East, 145.33 feet to the beginning of a tangent curve concave to the Southwest and having a radius of 1250.00 feet; thence
Southeasterly, 553.62 feet along said tangent curve through a central angle of 25°22’34” to a point on the easement described in Grant Deed recorded November 26, 2019 as Document No. 2019-0143112; thence
North 56°19’26” East, 42.00 feet along said Document No. 2019-0143112 to the beginning of a non-tangent curve concave to the Northeast having a radius of 1292.00 feet and to which beginning of said non-tangent curve a radial line bears South 56°05'40" West; thence
Southeasterly, 7.95 feet along said non-tangent curve through a central angle of 0°21'10"; thence
South 77°17’06” East, 30.45 feet; thence

North 56°19’26” East, 179.60 feet to the TRUE POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM all that portion of the property described in Grant Deed recorded November 26, 2019, as Document No. 2019-0143112, Official Records Fresno County, lying in the Southwest Quarter of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian County of Fresno, State of California, according to the Official Plat thereof.

Containing an area of 530,994 square feet more or less.



LINE TABLE		
LINE	BEARING	DISTANCE
L1	N56°19'26"E	42.00'
L2	N56°19'26"E	42.00'
L3	S77°17'06"E	30.45'
L4	N56°19'26"E	179.60'
L5	N59°17'21"W	145.33'

LEGEND:

AREA TO BE REZONED TO ZONE R-1

EXISTING SECTION LINE

EXISTING PROPERTY LINE

T.P.O.B. TRUE POINT OF BEGINNING

CURVE TABLE			
CURVE	RADIUS	DELTA	LE
C1	1208.00'	1°54'09"	4
C2	1292.00'	0°21'10"	
C3	1250.00'	12°25'55"	2

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS
2985 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 244-3123 WEBSITE: YANDHENGR.COM

PROJECT TITLE: T6375 REZONE TO R-1 - PRD

SHEET DESCRIPTION: REZONE EXHIBIT

Parcel Map Check Report

Parcel Name: Site R-1
Description:
Process segment order counterclockwise: False
Enable mapcheck across chord: False
North:2,200,732.2599' East:6,356,087.6339'

Segment# 1: Line
Course: S56° 19' 26"W Length: 42.00'
North: 2,200,708.9710' East: 6,356,052.6821'

Segment# 2: Curve
Length: 40.11' Radius: 1,208.00'
Delta: 1°54'09" Tangent: 20.06'
Chord: 40.11' Course: S32° 58' 13"E
Course In: S56° 04' 43"W Course Out: N57° 58' 52"E
RP North: 2,200,034.8406' East: 6,355,050.2789'
End North: 2,200,675.3208' East: 6,356,074.5099'

Segment# 3: Line
Course: N89° 16' 35"W Length: 1,093.60'
North: 2,200,689.1319' East: 6,354,980.9971'

Segment# 4: Line
Course: N0° 20' 08"E Length: 661.87'
North: 2,201,350.9906' East: 6,354,984.8733'

Segment# 5: Line
Course: S89° 16' 22"E Length: 362.47'
North: 2,201,346.3901' East: 6,355,347.3142'

Segment# 6: Curve
Length: 271.22' Radius: 1,250.00'
Delta: 12°25'55" Tangent: 136.15'
Chord: 270.69' Course: S53° 04' 23"E
Course In: N43° 08' 34"E Course Out: S30° 42' 39"W

RP North: 2,202,258.4550' East: 6,356,202.0876'
End North: 2,201,183.7604' East: 6,355,563.7057'

Segment# 7: Line
Course: S59° 17' 21"E Length: 145.33'
North: 2,201,109.5395' East: 6,355,688.6540'

Segment# 8: Curve
Length: 553.62' Radius: 1,250.00'
Delta: 25°22'34" Tangent: 281.42'
Chord: 549.10' Course: S46° 36' 04"E
Course In: S30° 42' 39"W Course Out: N56° 05' 13"E
RP North: 2,200,034.8449' East: 6,355,050.2721'
End North: 2,200,732.2626' East: 6,356,087.6286'

Perimeter: 3,170.23' Area: 530,994.43Sq.Ft.
Error Closure: 0.0060 Course: N62° 20' 41"W
Error North : 0.00278 East: -0.00530

Precision 1: 528,370.00

Legal Description

APN: 556-040-23

Proposed Zone R-1 - PRD

The land referred to is situated in the unincorporated area of the County of Fresno, State of California, and is described as follows:

Parcel 4 of Parcel Map No. 1772, according to the Map thereof recorded in Book 11, Page 53 of Parcel Maps, Fresno County Records;

EXCEPTING THEREFROM the East 338.00 feet of the South 455.92 feet of said property.

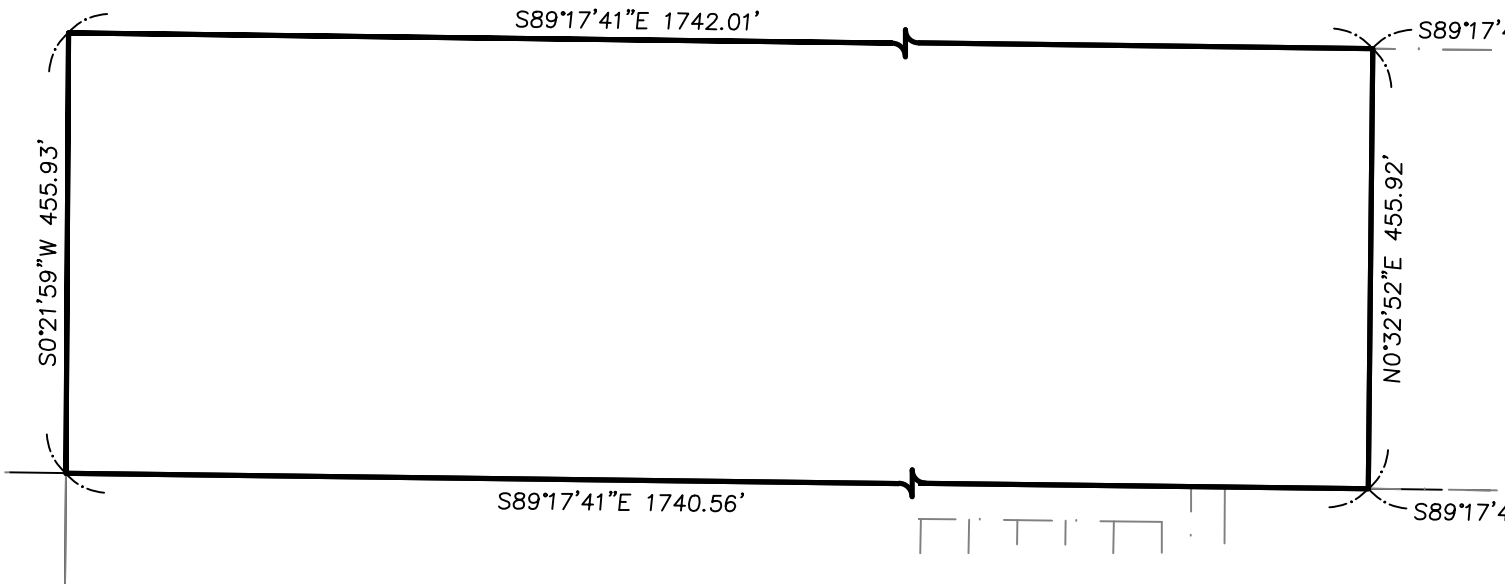
ALSO EXCEPTING THEREFROM that portion granted to the Fresno Metropolitan Flood Control District by Order of Condemnation, Case Number 404831-0, Superior Court of California, County of Fresno, more particularly described as follows:

That portion of Parcel 1 of Parcel Map No. 3443, according to the Map thereof recorded in Book 26 at Page 88 of Parcel Maps, Fresno County Records, that portion of Parcel 1 of Parcel Map No. 3447, according to the Map thereof recorded in Book 26 at Page 87 of Parcel Maps, Fresno County Records, and that portion of Parcels 3 and 4 of Parcel Map No. 1772, according to the Map thereof recorded in Book 11 at Page 53 of Parcel Maps, Fresno County Records, in the Northeast Quarter of Section 20, Township 12 South, Range 21East, Mount Diablo Base and Meridian, particularly described as follows:

Beginning at the Northeast Corner of the Northeast Quarter of said Section 20; thence South 0º 44' 37" East along the East line of the Northeast Quarter of said Section 20 a distance of 2191.34 feet to the point of intersection thereof with a line which is parallel with and 455.92 feet North of, measured at right angles thereto, the South line of the Northeast Quarter of said Section 20; thence South 89º 21' 07"West along said parallel line a distance of 2078.02 feet to the point of intersection thereof with the West line of Parcel 4 of Parcel Map No. 1772; thence North 0º 59' 00"West along the West line of Parcel 4 of Parcel Map No. 1772 and the West line of Parcel 1 of said Parcel Map No. 3443 a distance of 1635.71 feet to the Northwest corner of Parcel 1 of said Parcel Map No. 3443; thence North 89º 20'30"East along the North line of Parcel 1 of said Parcel Map No. 3443 and the North line of Parcel 1of said Parcel Map No. 3447 a distance of 1317.44 feet to the Northeast corner of Parcel 1 of said Parcel Map No. 3447, said corner also being a point on the West line of Parel 3 of said Parcel Map No. 1772; thence North 0º 51'48"West along the West line of Parcel 3 of said Parcel Map No. 1772 and the Northerly prolongation of said West line a distance of 556.50 feet to the point of intersection thereof with the North line of the Northeast Quarter of said Section 20; thence North 89º 22' 30 East along said North line a distance of 768.59 feet to the Point of Beginning.

Containing an area of 793,887 square feet more or less.

THE NORTHEAST CORNER OF
NORTHEAST QUARTER
SECTION 20, T.12S., R.2



LEGEND:

———	AREA TO BE REZONED TO ZONE R–1
——— — — ———	EXISTING SECTION LINE
— · —— · —— · —	EXISTING PROPERTY LINE
T.P.O.B.	TRUE POINT OF BEGINNING

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS
2985 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 244-3123 WEBSITE: YANDHENGR.COM

PROJECT TITLE: T6452 REZONE TO R-1 - PRD

SHEET DESCRIPTION: REZONE EXHIBIT

Parcel Map Check Report

Parcel Name: Zone R-1
Description:
Process segment order counterclockwise: False
Enable mapcheck across chord: False
North:2,202,423.3893' East:6,358,629.2891'

Segment# 1: Line
Course: S0° 32' 52"W Length: 455.92'
North: 2,201,967.4901' East: 6,358,624.9303'

Segment# 2: Line
Course: N89° 17' 41"W Length: 1,740.56'
North: 2,201,988.9149' East: 6,356,884.5021'

Segment# 3: Line
Course: N0° 21' 59"E Length: 455.93'
North: 2,202,444.8356' East: 6,356,887.4177'

Segment# 4: Line
Course: S89° 17' 41"E Length: 1,742.01'
North: 2,202,423.3930' East: 6,358,629.2957'

Perimeter: 4,394.42' Area: 793,886.94Sq.Ft.
Error Closure: 0.0076 Course: N61° 04' 25"E
Error North : 0.00367 East: 0.00663

Precision 1: 578,213.16

Exhibit "A"
AE-20 to R-A

Those portions of the Northeast quarter of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian, in the County of Fresno, State of California, described as follows:

Parcels 2 through 4 of Parcel Map No. 3443 recorded in Book 26 of Parcel Maps at Page 88, Fresno County Records.

TOGETHER WITH Parcels 2 through 4 of Parcel Map No. 3447 recorded in Book 26 of Parcel Maps at Page 87, Fresno County Records.

5-21-23

EXHIBIT "B"

LEGEND

INDICATES AREA TO BE REZONED FROM AE-20 TO R-A

NORTHEAST CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

EAST BEHYMER AVENUE

PARCEL 2 OF PARCEL MAP NO. 3443 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 88, FRESNO COUNTY RECORDS.

PARCEL 3 OF PARCEL MAP NO. 3443 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 88, FRESNO COUNTY RECORDS.

PARCEL 4 OF PARCEL MAP NO. 3443 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 88, FRESNO COUNTY RECORDS.

PARCEL 2 OF PARCEL MAP NO. 3447 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 87, FRESNO COUNTY RECORDS.

PARCEL 3 OF PARCEL MAP NO. 3447 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 87, FRESNO COUNTY RECORDS.

PARCEL 4 OF PARCEL MAP NO. 3447 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 87, FRESNO COUNTY RECORDS.

768'+/-

NORTH SUNNYSIDE AVENUE

PARCEL 1 OF PARCEL MAP No. 3443 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 88, FRESNO COUNTY RECORDS.

PARCEL 1 OF PARCEL MAP NO. 3447 RECORDED IN BOOK 26 OF PARCEL MAPS AT PAGE 87, FRESNO COUNTY RECORDS.

N

SCALE: 1" = 200'

PROFESSIONAL LAND SURVEYOR
AARON D. SPRAY
P.L.S. 9484
STATE OF CALIFORNIA

9.21.23

0' 200' 400' 600'

20-089/6343
REZONE

DIXON & ASSOCIATES, INC.
LAND SURVEYING
620 DEWITT, #101
CLOVIS, CALIFORNIA, 93612
PH: (559)297-4200 FAX: (559)297-

Exhibit "A"
AE-20 to R-1

That portion of the North half of the Northwest quarter of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian, in the County of Fresno, State of California, lying Easterly of the centerline of Enterprise Canal.

EXHIBIT "B"

NORTHWEST CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

POINT OF COMMENCEMENT: THE NORTH QUARTER CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

NORTHEAST CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

EAST BEHYMER AVENUE

NORTH MINNEWAWA AVENUE

NORTH SUNNYSIDE AVENUE

GRANT DEED RECORDED FEBRUARY 25, 1983 AS DOCUMENT No. 83015624, OFFICIAL RECORDS OF FRESNO COUNTY.

SOUTHEAST CORNER OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

PROFESSIONAL LAND SURVEYOR
AARON D. SPRAY
P.L.S. 9484
STATE OF CALIFORNIA

5-29-24

LEGEND

INDICATES AREA TO BE REZONED FROM AE-20 TO R-1

N

SCALE: 1" = 240'

0' 240' 480' 720'

20-089/6343 REZONE

DIXON & ASSOCIATES, INC.
LAND SURVEYING
620 DEWITT, #101
CLOVIS, CALIFORNIA, 93612
PH: (559)297-4200 FAX: (559)297-42

Exhibit "A"
AE-20 to P-F

The East 318.00 feet of the South 455.92 feet of Parcel 4 of Parcel Map No. 1772, in the County of Fresno, State of California, according to the map thereof recorded in book 11 of Parcel Maps at Page 53, Fresno County Records lying in the Northeast quarter of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian.

EXHIBIT "B"

EAST BEHYMER AVENUE

THE NORTHEAST CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

20.00'

LEGEND

INDICATES AREA TO BE REZONED FROM AE-20 TO P-F

PARCEL 4 OF PARCEL MAP No. 1772 RECORDED IN BOOK 11 OF PARCEL MAPS AT PAGE 53, FRESNO COUNTY RECORDS.

PARCEL 4 OF PARCEL MAP No. 1772 RECORDED IN BOOK 11 OF PARCEL MAPS AT PAGE 53, FRESNO COUNTY RECORDS.

GRANT DEED RECORDED DECEMBER 5, 2019 AS DOCUMENT No. 2019-0146843, OFFICIAL RECORDS OF FRESNO COUNTY.

318.00'

455.92'

455.92'

318.00'

20.00'

NORTH SUNNYSIDE AVENUE

LOT 179 OF TRACT No. 6200 RECORDED IN VOLUME 89 OF PLATS AT PAGES 39 THROUGH 45, FRESNO COUNTY RECORDS.

THE EAST QUARTER CORNER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN.

LOT 178 OF TRACT No. 6200 RECORDED IN VOLUME 89 OF PLATS AT PAGES 39 THROUGH 45, FRESNO COUNTY RECORDS.

N

PROFESSIONAL LAND SURVEYOR
AARON D. SPRAY
P.L.S. 9484
STATE OF CALIFORNIA

SCALE: 1" = 200'

0' 200' 400' 600'

20-089/6343
REZONE

DIXON & ASSOCIATES, INC.
LAND SURVEYING
620 DEWITT, #101
CLOVIS, CALIFORNIA, 93612
PH: (559)297-4200 FAX: (559)297-

Exhibit "A"
AE-20 to PF

Those portions of the Northeast quarter of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian, in the County of Fresno, State of California, described as follows:

Parcel 1 of Parcel Map No. 3443 recorded in Book 26 of Parcel Maps at Page 88, Fresno County Records.

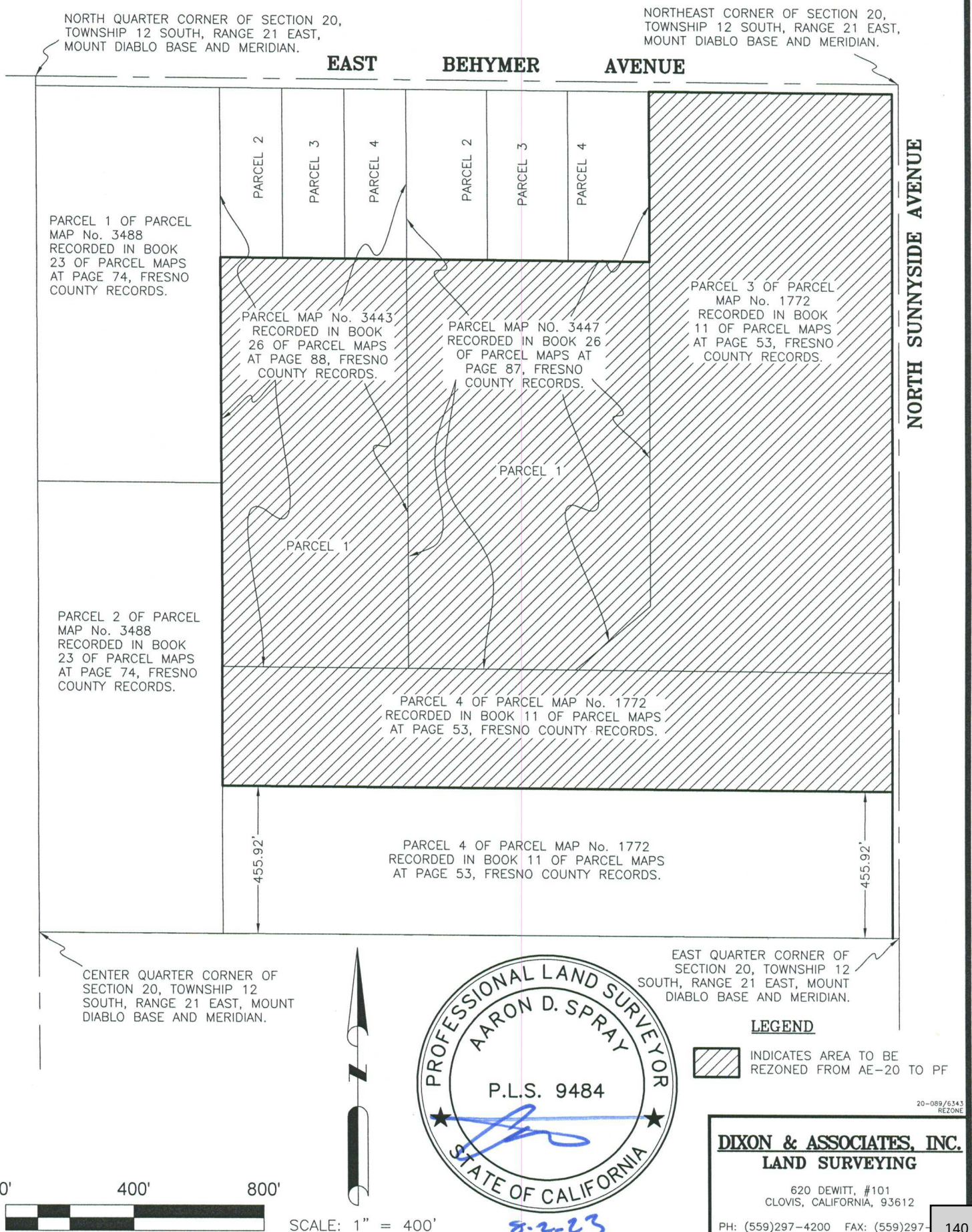
TOGETHER WITH Parcel 1 of Parcel Map No. 3447 recorded in Book 26 of Parcel Maps at Page 87, Fresno County Records.

TOGETHER WITH Parcels 3 and 4 of Parcel Map No. 1772 recorded in Book 11 of Parcel Maps at Page 53, Fresno County Records.

EXCEPTING THEREFROM the South 455.92 feet of Parcel 4 of said Parcel Map No. 1772.

8-2-23

EXHIBIT "B"



PROFESSIONAL LAND SURVEYOR
AARON D. SPRAY
P.L.S. 9484
STATE OF CALIFORNIA

8-2-23

LEGEND

INDICATES AREA TO BE REZONED FROM AE-20 TO PF

20-089/6343 REZONE

DIXON & ASSOCIATES, INC.
LAND SURVEYING
620 DEWITT, #101
CLOVIS, CALIFORNIA, 93612
PH: (559)297-4200 FAX: (559)297-

Legal Description

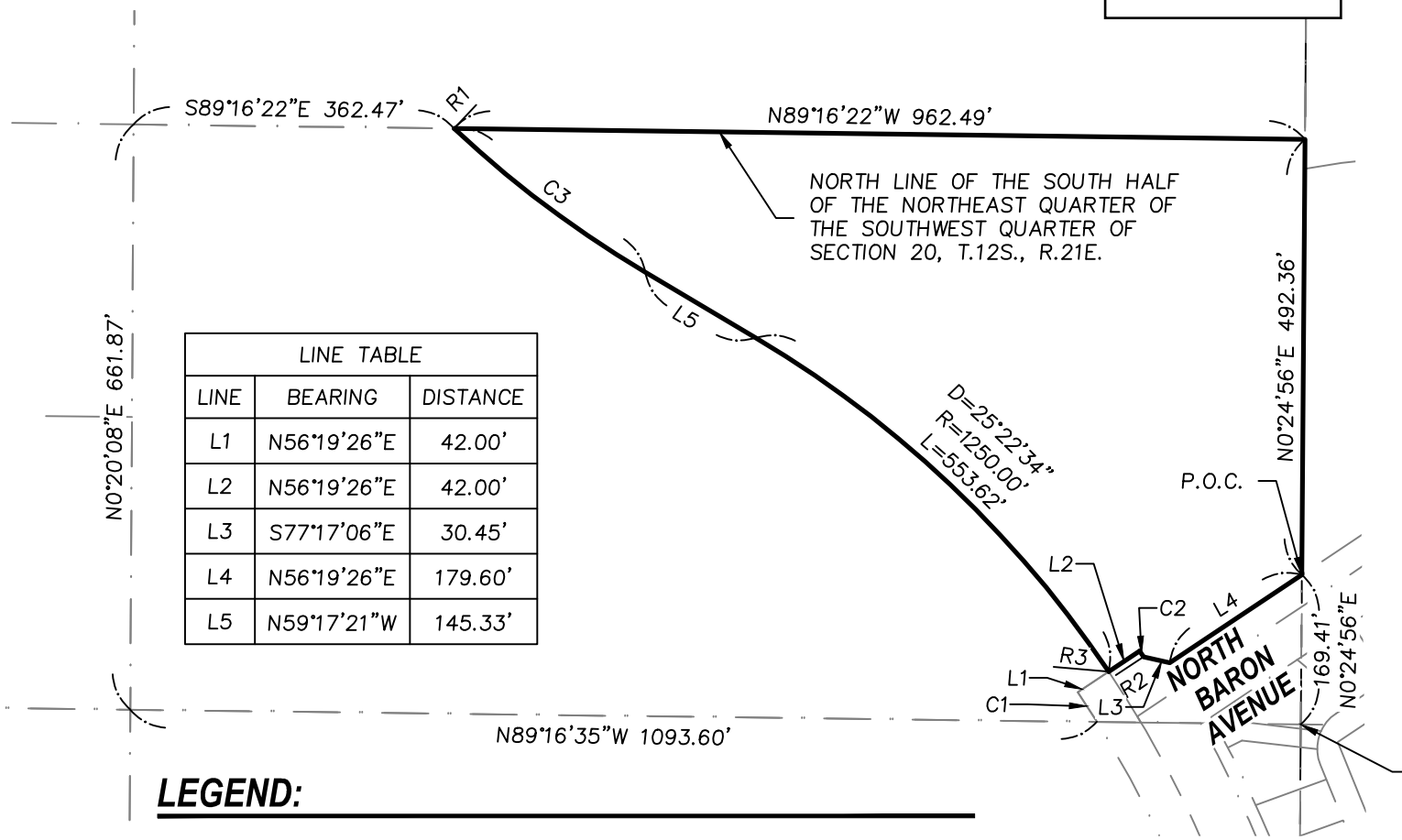
APN:556-050-35(portion)

Proposed Zone O

All that portion of the South Half of the Northeast Quarter of the Southwest Quarter of said Section 20, described as follows:

COMMENCING at the Southeast Corner of said South Half; thence
North 0°24’56” East, 169.41 feet along the East line of said South Half to the TRUE POINT OF BEGINNING; thence
North 0°24’56” East, 492.36 feet, continuing along said East line to the North line of said South Half; thence
North 89°16’22” West, 962.49 feet, along said North line, to the beginning of a non-tangent curve concave to the Northeast having a radius of 1250.00 feet and to which beginning of said non-tangent curve a radial line bears South 43°08'34" West; thence
Southeasterly, 271.22 feet along said non-tangent curve through a central angle of 12°25'55"; thence
South 59°17’21” East, 145.33 feet to the beginning of a tangent curve concave to the Southwest and having a radius of 1250.00 feet; thence
Southeasterly, 553.62 feet along said tangent curve through a central angle of 25°22’34” to a point on the easement described in Grant Deed recorded November 26, 2019 as Document No. 2019-0143112; thence
North 56°19’26” East, 42.00 feet along said Document No. 2019-0143112 to the beginning of a non-tangent curve concave to the Northeast having a radius of 1292.00 feet and to which beginning of said non-tangent curve a radial line bears South 56°05'40" West; thence
Southeasterly, 7.95 feet along said non-tangent curve through a central angle of 0°21'10"; thence
South 77°17’06” East, 30.45 feet; thence
North 56°19’26” East, 179.60 feet to the TRUE POINT OF BEGINNING.

Containing an area of 6,800 square feet more or less.



LINE TABLE		
LINE	BEARING	DISTANCE
L1	N56°19'26"E	42.00'
L2	N56°19'26"E	42.00'
L3	S77°17'06"E	30.45'
L4	N56°19'26"E	179.60'
L5	N59°17'21"W	145.33'

LEGEND:

———	AREA TO BE REZONED TO ZONE R–1
——— — — ———	EXISTING SECTION LINE
— · ——— · ——— · —	EXISTING PROPERTY LINE
T.P.O.B.	TRUE POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT

CURVE TABLE			
CURVE	RADIUS	DELTA	LE
C1	1208.00'	1°54'09"	4
C2	1292.00'	0°21'10"	
C3	1250.00'	12°25'55"	2

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS
2985 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 244-3123 WEBSITE: YANDHENGR.COM

PROJECT TITLE: T6375 REZONE TO O

SHEET DESCRIPTION: REZONE EXHIBIT

Parcel Map Check Report

Parcel Name: Zone O
Description:
Process segment order counterclockwise: False
Enable mapcheck across chord: False
North:2,200,841.8196' East:6,356,306.1628'

Segment# 1: Line
Course: S56° 19' 26"W Length: 179.60'
North: 2,200,742.2318' East: 6,356,156.7023'

Segment# 2: Line
Course: N77° 17' 06"W Length: 30.45'
North: 2,200,748.9339' East: 6,356,126.9991'

Segment# 3: Curve
Length: 7.95' Radius: 1,292.00'
Delta: 0°21'10" Tangent: 3.98'
Chord: 7.95' Course: N33° 43' 45"W
Course In: S56° 26' 50"W Course Out: N56° 05' 40"E
RP North: 2,200,034.8392' East: 6,355,050.2759'
End North: 2,200,755.5499' East: 6,356,122.5819'

Segment# 4: Line
Course: S56° 19' 26"W Length: 42.00'
North: 2,200,732.2610' East: 6,356,087.6301'

Segment# 5: Curve
Length: 553.62' Radius: 1,250.00'
Delta: 25°22'34" Tangent: 281.42'
Chord: 549.10' Course: N46° 36' 04"W
Course In: S56° 05' 13"W Course Out: N30° 42' 39"E
RP North: 2,200,034.8432' East: 6,355,050.2737'
End North: 2,201,109.5378' East: 6,355,688.6555'

Segment# 6: Line

Course: N59° 17' 21"W
North: 2,201,183.7587'
Length: 145.33'
East: 6,355,563.7072'

Segment# 7: Curve
Length: 271.22'
Delta: 12°25'55"
Chord: 270.69'
Course In: N30° 42' 39"E
RP North: 2,202,258.4533'
Radius: 1,250.00'
Tangent: 136.15'
Course: N53° 04' 23"W
Course Out: S43° 08' 34"W
East: 6,356,202.0891'
End North: 2,201,346.3884'
East: 6,355,347.3157'

Segment# 8: Line
Course: S89° 16' 22"E
North: 2,201,334.1724'
Length: 962.49'
East: 6,356,309.7281'

Segment# 9: Line
Course: S0° 24' 56"W
North: 2,200,841.8254'
Length: 492.36'
East: 6,356,306.1572'

Perimeter: 2,685.03'
Error Closure: 0.0081
Error North : 0.00579
Area: 321,862.85Sq.Ft.
Course: N44° 22' 53"W
East: -0.00567

Precision 1: 331,483.95

RESOLUTION 24-__

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS RECOMMENDING THAT THE CITY COUNCIL APPROVE A VESTING TENTATIVE TRACT MAP FOR A 590-LOT SINGLE-FAMILY SUBDIVISION ON APPROXIMATELY 71.54 ACRES OF PROPERTY LOCATED NEAR THE SOUTHWEST AREA OF BEHYMER AVENUE AND THE SUNNYSIDE AVENUE ALIGNMENT SUBJECT TO THE CITY COUNCIL'S APPROVAL OF ANNEXATION

WHEREAS, Wilson Premier Homes, Inc. 7550 N. Palm Avenue, Suite 102, Fresno, CA 93711, submitted an application for Vesting Tentative Tract Map 6343 for a 590-lot single-family subdivision ("Tract Map") on approximately 71.54 acres of property located near the southwest area of Behymer Avenue and the Sunnyside Avenue alignment ("Property"); and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on April 8, 2024, mailed public notices to property owners within 800 feet of the Property, ten (10) days prior to said Planning Commission hearing, and otherwise posted notice of the Public Hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on April 18, 2024; and

WHEREAS, the proposed Tract Map was presented to the Planning Commission for approval in accordance with the Subdivision Map Act and Title 9 of the Clovis Municipal Code ("Development Code"); and

WHEREAS, the Planning Commission considered the California Environmental Quality Act ("CEQA") analysis outlined in the staff report and elsewhere in the Administrative Record which determines that the Tract Map meets the requirements pursuant to CEQA Guidelines and recommends that the City Council certify the Final Project Environmental Impact Report for the TM 6343 Project; adopt the CEQA Findings of Fact and a Statement of Overriding Consideration; and adopt a Mitigation Monitoring and Reporting Program; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Tract Map, which is on file with the City of Clovis Department of Planning and Development Services, and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached as **Attachment B** to this Resolution, which are incorporated herein by this reference.

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Planning Commission hereby approves Vesting Tentative Tract Map 6343 as shown in **Attachment A,** subject to the City's Council's approval of an annexation, and subject to the conditions of approval set forth in **Attachment B** to this Resolution.

2. The Tract Map satisfies the required findings for approval of a Tentative Tract Map, as follows:

    a. The proposed map, subdivision design, and improvements are consistent with the General Plan and any applicable specific plan;

    b. The site is physically suitable for the type and proposed density of development;

    c. The design of the subdivision and the proposed improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat;

    d. The design of the subdivision or type of improvements is not likely to cause serious public health or safety problems;

    e. The design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through or use of property within the proposed subdivision;

    f. The discharge of sewage from the proposed subdivision into the community sewer system will not result in violation of existing requirements prescribed by the California Regional Water Quality Control Board;

    g. The design of the subdivision provides, to the extent feasible, passive or natural heating and cooling opportunities; and

    h. The proposed subdivision, its design, density, and type of development and improvements conform to the regulations of the Development Code and the regulations of any public agency having jurisdiction by law.

3. The Planning Commission could not make the findings necessary for approval of Vesting Tentative Tract Map 6343 without the conditions of approval set forth in **Attachment B** to this Resolution.

4. The basis for the findings is detailed in the April 18, 2024, staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on April 18, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-__
DATED: April 18, 2024

_____
Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

Attachment B
Conditions of Approval - TM6343
Planning Division Comments
(Lily Cha, Senior Planner - (559) 324-2335)

1. The applicant shall obtain City approval in advance of temporary and permanent subdivision signs through separate sign review, consistent with the development criteria of the Clovis Municipal Code Sign Ordinance.

2. The developer shall comply with all mitigation measures identified in the Mitigation Monitoring and Reporting Program prepared for the Project, included as **Attachment 11** to the staff report.

3. This vesting tentative tract map is approved per **Attachment A**.

4. Prezone 2021-006 approves an R-1-PRD (Planned Residential Development) Zone District for the Project site (Development Area). Density shall be consistent with the Medium-High Density Land Use Designation of the Clovis General Plan.

5. The proposed project must also produce a comprehensive development of superior quality than which might otherwise occur from more traditional development on the site. This could include an enhanced entry point, an embellished block wall on both street frontages, and superior exterior elevation design, all of which will be reviewed and approved through the civil plan review process and residential site plan review.

6. No more than two of the same unit type (floor layout and exterior materials package) shall be repeated side by side. When two of the same units are repeated side by side, they shall be different colors. These identical provisions may be waived by the City Planner on a specific lot basis within the project when the size or configuration of a lot would otherwise prevent compliance with the above requirements of any other siting or setback/yard requirements established under this application. If such a waiver is requested, the developer and City Planner shall work together to ensure that any sitings of units not in compliance with the above requirements shall be of different materials and elevations in order to minimize any adverse visual impacts that may result.

7. TM6343 is subject to the development standards of Planned Development Permit 2021-001 and any amendments thereafter**.** Any development standards not expressed within PDP2021-00 and TM6343 shall be subject to the underlying Zone District R-1-PRD Standards and Guidelines, and the Development Code.

8. A residential site plan review (RSPR) is required to memorialize building plans and elevations for the different product types of TM6343. Specific color and materials of the models, walls, amenities, landscaping, and fencing will be evaluated through the civil plans.

9. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in §9.24.100, of the Clovis Municipal Code.

10. Community areas within each gated neighborhood shall adhere to its corresponding development standards.

11. Development standards for the Elev8ions lots/ homes of TM6343 shall be as follows. This is applicable to lots 1-240 & 455-590:

Lot Coverage:	65% Max
Maximum Height:	2-stories not to exceed 35 feet
Minimum Lot Size:	1,800 square feet
Minimum Parcel Width:	36 feet
Minimum Curved Parcel Width:	36 feet
Minimum Corner Parcel Width:	36 feet
Minimum Parcel Depth:	50 feet
Front Setback to garage, living area:	05 feet
Front Setback to Projections and/or Porch/ Patio:	04 feet
Corner/ Reversed Corner Street Side Setback:	03 feet
Interior Side Yard Setback (opposite from garage):	03 feet
Interior Side Yard Setback (garage side):	05 feet
Rear Yard Setback:	04 feet
Garages:	20'x20' interior dimension (**2-car**) 10'x20' interior dimension (**1-car**)

12. Development standards for the Regent Park lots/ homes of TM6343 shall be as follows. This is applicable to lots 240-454:

Lot Coverage:	60% Max
Maximum Height:	2-stories not to exceed 35 feet
Minimum Lot Size:	4,500 square feet
Minimum Parcel Width:	50 feet
Minimum Curved Parcel Width:	25 feet
Minimum Corner Parcel Width:	53 feet
Minimum Parcel Depth:	90 feet
Front Setback to garage/ living area:	18 feet/ 10 feet
Front Setback to Projections and/or Porch/ Patio:	09 feet
Corner/ Reversed Corner Street Side Setback:	03 feet (fence)/ 08 feet (living)
Interior Side Yard Setback (opposite from garage):	03 feet
Interior Side Yard Setback (garage side):	05 feet
Rear Yard Setback:	08 feet
Garages:	20'x20' interior dimension (**2-car**) 9'x15.5' additional tandem

13. Behymer is a Community Boulevard and shall be designed in accordance to the Heritage Grove Master Design Plan. Behymer shall have a 20-foot

landscape/pedestrian setback, with a 10-foot parkway, 6-foot sidewalk, and 4-foot landscape buffer setback.

14. Baron Avenue is a Neighborhood Boulevard and shall have a 20-foot landscape/pedestrian setback, with a 10-foot landscape, 6-foot walk, and 4-foot landscape buffer setback.

15. Perrin and Hammel Avenues are local streets and shall meet local street standards at a minimum.

16. Internal private streets shall have a 37.2 foot width, and no less than 36 feet.

17. The proposed pedestrian crossing on Perrin is subject to relocation or redesign for safety purposes. Design of the pedestrian crossing shall meet City standards for mid-block pedestrian crossing and shall meet established design within the Heritage Grove area.

18. The developer shall utilize street lights along local and private streets within the development area that are of the same design and luminosity as surrounding developments within Heritage Grove.

19. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.

20. All landscaping (open space and private yards) shall conform to the City of Clovis Water Efficient Landscape Ordinance.

21. Landscape plans shall be reviewed and approved separately by the landscape review committee for tree and landscape type and location.

22. All lots shall be provided an all-weather surface for the placement and storage of trash receptacles leading from the 5-foot side yard to the front of the property.

23. The developer shall construct a minimum six-foot high solid split face masonry wall along the Behymer and Baron Avenues. The masonry wall along Baron Avenue should incorporate tubular steel pedestrian gates in areas where internal driveways front Baron Avenue (Refer to example from TM 6168 in Loma Vista). The masonry walls shall incorporate angled corners at entries, and columns at the corners and ends.

24. Landscape features and forms within amenity areas shall be consistent with Heritage Grove Design Guidelines. Details shall be provided in the construction plan.

25. The developer shall construct a neighborhood park with associated amenities, additional landscaping areas, open space areas, per **Attachment 8** of this report.

26. The amenities required for this planned development include the following:

    a. A recreational area within each of the Elevations gated communities, which includes a pool, restroom facility, outdoor shower, cabana/ pergola, and lawn chairs. Specific amenity details will be reviewed during the civil plan review process.
    b. A linear park adjacent to the north side of Perrin Avenue that includes walking path, running path, benches, trash receptacles, enhanced landscaping, and lighting.
    c. An approximately 13,930 square feet park space with fitness equipment.
    d. An enhanced sidewalk pattern along the west side of the Hammel Avenue including a 19-foot-wide right-of-way with an 8-foot meandering sidewalk, and enhanced landscaping.

27. The developer shall design the transition between the future bridge and pedestrian area.

28. The developer shall design and install the Community Gateway (Community Corner Paseo) at the northwest corner of Behymer and Baron Avenues. The Corner Paseo shall be designed to meet the intent outlined in the Heritage Grove Guidelines. Final approval of the design shall be made by the Director of Planning and Development Services.

29. The developer shall record a Covenant regarding a “right to farm,” for adjacent property owners. Such agreement shall be disclosed to all future home buyers.

30. The applicant shall record a Notice of Nonconformance dealing with any structure used for model homes where the garage is converted for the use as a sales office.

31. Upon final recordation of this vesting tentative tract map, it shall be the applicant’s responsibility to furnish to the Planning Department an electronic (PDF) copy of the original map obtained from the Fresno County Recorder’s Office.

32. The applicant shall relay all conditions of approval for Vesting Tentative Tract Map 6343 to all subsequent purchasers of individual lots, if applicable, and/or to subsequent purchasers of this entire tract map development.

Police Department Conditions

(Sean O'Brien, Department Representative - 324-3468)

33. Construction work shall be limited to the hours set forth in the Clovis Municipal Code. (CMC § 5.27.604.)

34. It shall be the responsibility of the property owner to maintain the structures and adjoining fences to the project free of graffiti. All forms of graffiti shall be removed within 48 hours. (CMC §§ 5.27.101.)

35. Emergency phone numbers for responsible parties shall be kept current during the building phase of the project.

36. All construction materials shall be located within a secured area or monitored by security staff during non-construction hours.

Fire Department Conditions

(Rick Fultz, Fire Department Representative – (559) 324-2224)

Roads/ Access

37. Street Width: Fire apparatus access width shall be determined by measuring from "base of curb" to "base of curb" for roadways that have curbs. When roadways do not have curbs, the measurements shall be from the edge of the roadway surface (approved all weather surface).

38. Street Width for Single Family Residences: Shall comply with Clovis Fire Standard #1.1
    Minimum Access Road Width of 36 feet for Single Family Residences. Roads 36 feet or wider allow for Parking on both sides of street. Access roads near fire department access gates shall be a minimum of 20' in width and marked as fire lanes.

39. Fire Lane: The fire lanes shall be posted with signs and/or the curbs shall be painted red as per Clovis Fire Department Standard #1.1 and identified on site plan.

40. Security Gates: All security gates shall comply with Clovis Fire Department Gates Standard #1.5. Plans shall be submitted for review and permits issued by Fire Department prior to installation. Gates shall be inspected and tested for operation prior to any occupancy.

41. Turning Radius: All access way roads constructed shall be designed with a minimum outside turning radius of forty-five feet (45')

42. Temporary Street Signs: The applicant shall install temporary street signs that meet City Temporary Street Sign Standard #1.9 prior to issuance of building permits within a subdivision.

43. All Weather Access &Water Supply: The applicant shall provide all weather access to the site during all phases of construction to the satisfaction of the approved Clovis Fire Department Standard #1.2 or #1.3.

44. Two Points of Access: Any development to this parcel will require a minimum of two (2) points of access to be reviewed and approved by the Clovis Fire Department. All required access drives shall remain accessible during all phases of construction which includes paving, concrete work, underground work, landscaping, perimeter walls.

Water Systems

45. Residential Fire Hydrant: The applicant shall install (number and location to be determined with civil drawings) 4 ½" x 2 ½" approved Residential Type fire hydrant(s) and "Blue Dot" hydrant locators, paint fire hydrant(s) yellow with blue top and caps, and paint the curb red as specified by the adopted Clovis Fire Department Standard #1.4. Plans shall be submitted to the Clovis Fire Department for review and approval prior to installation. The hydrant(s) shall be charged and in operation prior to any framing or combustible material being brought onto the site.

46. Looped Water Main: The applicant shall install approved looped water main capable of the necessary flow of water for adequate fire protection and approved by the Clovis Fire Department

Engineering / Utilities / Solid Waste Division Conditions
(Sean Smith, Engineering Division Representative – 324-2363)
(Paul Armendariz, Department Representative – 324-2649)

Maps and Plans

47. The applicant shall have a final tract map prepared, in the form prescribed by the Subdivision Map Act and City of Clovis Municipal Code. The final tract map shall be submitted to the City of Clovis Engineering Division, and should include, but not be limited to, final tract map, the current filing fee, closure calculations, current preliminary title report, legal descriptions and drawings of required dedications.

48. The applicant shall submit separately to the City of Clovis Engineering Division, a set of construction plans on 24" x 36" sheets with City standard title block for all required improvements and a current preliminary title report. These plans shall be prepared by a registered civil engineer, and shall include a grading plan, landscape plan, a site plan showing trash enclosure locations and an overall site utility plan showing locations and sizes of sewer, water, storm drain, and irrigation mains, laterals, manholes, meters, valves, hydrants, fire sprinkler services, other facilities, etc. Plan check and inspection fees per City of Clovis Resolution No. 23-34 shall be paid with the first submittal of said plans. All plans shall be submitted at or before the time the

building plans are submitted to the Building Division and shall be approved by the City and all other involved agencies prior to the release of any development permits.

49. Prior to the initial submittal of the improvement plans, the applicant shall contact Sean Smith at (559) 324-2363 to setup a coordination meeting (Pre-submittal Meeting).

50. Upon approval of improvement plans, the applicant shall provide the City with the appropriate number of copies. After all improvements have been constructed and accepted by the City, the applicant shall submit to the City of Clovis Engineering Division (1) digital copy to the City in PDF format of the approved set of construction plans revised to accurately reflect all field conditions and revisions and marked "AS-BUILT" for review and approval. Upon approval of the AS-BUILTs by the City, and prior to granting of final occupancy or final acceptance, the applicant shall provide to the City (1) digital copy in PDF format and two (2) bond copies.

51. The applicant shall comply with reporting requirements in accordance with Government Code 65940.1, which requires the City to, “request from a development proponent, upon issuance of a certificate of occupancy or the final inspection, whichever occurs last, the total amount of fees and exactions associated with the project for which the certificate was issued. The City shall post this information on its internet website, and update it at least twice per year.”

General Provisions

52. The applicant shall pay all applicable development fees at the rate in effect at the time of payment and prior to final map approval by Council or have the fees payable directly to the City through a separate escrow account at the time of recordation of the map.

53. The applicant is advised that, pursuant to California Government Code, Section 66020, any party may protest the imposition of fees, dedications, reservations, or other exactions imposed on a development project by a local agency. Protests shall be filed in accordance with the provisions of the California Government Code and shall be filed within 90 days after conditional approval of this application is granted. The 90-day protest period for this project shall begin on the “date of approval” as indicated on the “Acknowledgment of Acceptance of Conditions” form.

54. All reimbursement requests shall be prepared and submitted in accordance with the requirements of the current version of the “Developer Reimbursement Procedures” a copy of which may be obtained at the City Engineer’s Office.

55. The applicant shall install all improvements within public right-of-way and easements in accordance with the City of Clovis standards, specifications, master plans, and record drawings in effect at the time of improvement plan approval.

56. The applicant shall address all conditions, and be responsible for obtaining encroachment permits from the City of Clovis for all work performed within the City's right-of-way and easements.

57. The applicant shall submit a soils report or a waiver of soils report to the City of Clovis Engineering Division for approval by the City Engineer.

58. The applicant shall provide and pay for all geotechnical services per City policy.

59. The applicant shall comply with the requirements of the local utility, telephone, and cable companies. It shall be the responsibility of the applicant to notify the local utility, telephone, and cable companies for the removal or relocation of utility poles where necessary. The City shall not accept first submittals without proof that the applicant has provided the improvement plans and documents showing all proposed work to the utility, telephone, and cable companies. All utility vaults in which lids cannot be sloped to match proposed finished grading, local utilities have 5% max slope, shall be located in sidewalk areas with pedestrian lids so the lid slope matches sidewalk cross slope.

60. All existing overhead and new utility facilities located on-site or within the street right-of-way along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.

61. The applicant shall contact and address all requirements of the United States Postal Service Clovis Office for the location and type of mailboxes to be installed. The location of the facilities shall be approved by the City Engineer prior to approval of improvement plans or any construction.

62. The applicant shall contact and address Caltrans requirements. The applicant shall be required to mitigate impacts to State Highway facilities as determined by the City Engineer.

Dedications and Street Improvements

63. The applicant shall provide right-of-way acquisition or dedicate free and clear of all encumbrances and/or improve the following streets to City standards. The street improvements shall be in accordance with the City's specific plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the type, location, and grades of existing improvements.

    a. Behymer Avenue – Along frontage, dedicate to provide right-of-way acquisition for 44.5' (existing 30') south of centerline and 24.5' (existing 20') north of centerline, and improve with curb, gutter, sidewalk, curb return ramps, streetlights, landscape strip, 43' (22.5' south + 20.5' north) of permanent paving, 3' paved swale on the north side of the street, and transitional paving as needed.

b. North Baron Avenue – Between Perrin Avenue and the ultimate southern limit of FMFCD Basin BY2, dedicate to provide right-of-way acquisition for 44.5' (exist 0') west of centerline and 44.5’ (exist 0’) east of centerline (centerline is on the eastern property line of the project parcel), and improve with curb, gutter, 6’ sidewalk on both sides of the street, curb return ramps, street lights, landscape strip, 45' (22.5’ east + 22.5’ west) permanent paving, and transitional paving as needed.

c. North Baron Avenue – Along the ultimate FMFCD Basin BY2 frontage, dedicate to provide right-of-way acquisition for 44.5' (exist 0') west of centerline and 40.5’ (exist 0’) east of centerline (centerline is on the eastern property line of the project parcel), and improve with curb, gutter, 6’ sidewalk on both sides of the street, drive approaches, curb return ramps, street lights, landscape strip, 45' (22.5’ east + 22.5’ west) permanent paving, and transitional paving as needed.

d. North Baron Avenue – Between the ultimate northern limit of the FMFCD Basin BY2 and Behymer Avenue, dedicate to provide right-of-way acquisition for 44.5' (exist 0') west of centerline and 40.5’ (exist 0’) east of centerline (centerline is 25.5’ west of the eastern property line of the project parcel), and improve with curb, gutter, 6’ sidewalk on both sides of the street, curb return ramps, street lights, landscape strip, 45' (22.5’ west + 22.5’ east) permanent paving, and transitional paving as needed.

e. Perrin Avenue – Between North Baron Avenue and the western limit of TTM 6200, dedicate to provide right-of-way acquisition for 77' (exist 0') north of centerline and 19’ (exist 0’) south of centerline, and improve with curb, gutter, sidewalk, curb return ramps, street lights, landscape strip, 30' (18’ north + 12’ south) permanent paving, 3' paved swale on the south side of the street, and transitional paving as needed. The curb pattern on the north side of Perrin Avenue includes a 10’ meandering asphalt trail and a meandering decomposed granite trail.

f. Perrin Avenue – Between the western limit of TTM 6200 and the western limit of this development, dedicate to provide right-of-way acquisition for 66' (exist 0') north of centerline and 30’ (exist 0’) south of centerline, and improve with curb, gutter, 10’ sidewalk of the north side of the street, 6’ sidewalk on the south side of the street, curb return ramps, street lights, landscaping and irrigation, 32' (16’ north + 16’ south) permanent paving, and transitional paving as needed. The curb pattern on the north side of Perrin Avenue includes a 10’ meandering asphalt trail and a meandering decomposed granite trail.

g. North Hammel Avenue – Dedicate to provide right-of-way acquisition for 30’ (exist 0’) east centerline and 30’ (exist 0’) west of centerline, and improve with curb, gutter, sidewalk, curb return ramps, street lights, landscaping and

irrigation, 32’ (16’ east + 16’ west’) permanent paving. The curb pattern for the east side of the street shall include a 5’ sidewalk. The curb pattern for the west side of the street shall include landscaping and an 8’ meandering sidewalk outside of the FID Enterprise Canal easement.

h. Gated Developments – Provide ample vehicle stacking area outside the travel lanes of the public streets that will allow vehicles to wait as vehicles are accessing the control panel to open the security gates. Design a turn-a-round to allow vehicles that cannot enter the complex to return to the street without backing the vehicle up. Provide the Solid Waste Division with remote controls that will allow access for all solid waste and recycling vehicles.

i. Interior Public Streets – Dedicate to provide for 50’ or 54’ of right-of-way in conformance with the City policy on street widths, and improve with curb, gutter, 5’ sidewalk adjacent to the curb, drive approaches, curb return ramps, streetlights, permanent paving, and all transitional paving as needed.

j. Interior Private Streets – For two-way traffic with no parking on both sides, the minimum travel width shall be 25’ with a clear width of 30’. For two-way traffic with parking on one side, the minimum travel width shall be 32’. For two-way traffic with parking on both sides, the minimum travel width shall be 36’.

k. Cul-De-Sacs - dedicate to provide for 52' radius and improve with curb, gutter, sidewalk, streetlights, 43' permanent paving and all transitional paving as needed.

l. Temporary Turnabouts – Dedicate to provide for a 48' radius and install 45' of permanent/temporary paving plus 3' paved swale at the north end of North Hamel Avenue.

m. Design a traffic signal at Behymer and North Baron Avenues, install the portion of the traffic signal at the southwest corner and provide the necessary right-of-way for the southwest corner portion of the traffic signal in its ultimate location.

n. The applicant shall relinquish all vehicular access to Behymer Avenue, Perrin Avenue, North Hammel Avenue and North Baron Avenue for lots that back or side on these streets.

o. Community Corner Paseo – At the southwest corner of Behymer Avenue and North Baron Avenue, dedicate and provide for a community corner paseo per the Heritage Grove Design Guidelines.

p. The applicant shall design accommodations for a future pedestrian bridge crossing over the Enterprise Canal along the western limits of the project.

q. The applicant shall eliminate access to the existing pedestrian bridge over the Enterprise Canal.

64. The applicant shall provide a dedication for a 10' public utility easement, where applicable, along all frontages or alternate widths approved by the utility companies.

65. The applicant shall not install any fences, temporary or permanent in public right-of-way.

66. The applicant shall provide preliminary title report, legal description and drawings for all dedications required which are not on the site. All contact with owners, appraisers, etc. of the adjacent properties where dedication is needed shall be made only by the City. The City will prepare an estimate of acquisition costs including but not limited to appraised value, appraisal costs, negotiation costs, and administrative costs. The applicant shall pay such estimated costs as soon as they are determined by the City.

67. The applicant shall obtain "R Value" tests in quantity sufficient to represent all street areas, and have street structural sections designed by a registered civil engineer based on these "R Value" tests.

68. The applicant shall, at the ends of any permanent pavement abutting undeveloped property, install 2" x 6" redwood header boards that shall be placed prior to the street surfacing.

69. Standard barricades with reflectors shall be installed at ends of streets abutting undeveloped property and any other locations to be specified by the City Engineer.

Sewer

70. The applicant shall identify and abandon all septic systems to City standards.

71. The applicant shall install sanitary sewer mains of the size and in the locations indicated below, prior to occupancy. The sewer improvements shall be in accordance with the City's master plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of the mains shall require approval of the City Engineer and shall be supported by appropriate calculations.
    a. Behymer Avenue – install 15" main along frontage.
    b. North Baron Avenue – install 10" main from Perrin Avenue to approximately 560 feet south of Behymer Avenue.
    c. Interior Streets – install 8" mains.

72. The applicant shall provide dedication of a 15' wide utility easement for all on-site sewer mains, not located in otherwise dedicated rights-of-way.

73. The applicant shall install one (1) 4" sewer service house branch to each lot within the tentative tract.

74. The applicant shall notify all property owners annexed to the City and along streets where a new sewer main will be constructed to determine if they wish to be connected to City sewer. Property owners shall work directly with the applicant regarding costs and location. The applicant shall notify property owners that sewer connection fees are required if they choose to connect.

75. Applicant acknowledges that sewage collection and treatment capacity for the area within which the proposed subdivision is located is extremely limited, and that capacity may not be available to provide service for the proposed subdivision at such time as applicant is ready to seek approval of a final map. Applicant acknowledges, understands, and agrees that if such sewage collection and treatment capacity is not available to serve the proposed subdivision, as determined in the sole and absolute discretion of the City of Clovis, the final map may not be approved. Notwithstanding the foregoing, applicant has freely and voluntarily chosen to proceed with the submittal and processing of the tentative map, intends to expend money, time and effort in connection therewith, and accepts the risks that the final map approval may be delayed until sufficient capacity is available as determined in the sole and absolute discretion of the City of Clovis. Applicant agrees to hold harmless and indemnify the City of Clovis from any and all claims, costs, expenses, and damages incurred or suffered by applicant, its principals, officers, employees, agents, or contractors, caused by, in connection with, or arising out of the unavailability of sewage collection or treatment capacity to serve the proposed subdivision, or the City's refusal or failure to approve a final map for the proposed subdivision because of the unavailability of sewage collection or treatment.

Water

76. The applicant shall identify and abandon all water wells to City standards.

77. The applicant shall install water mains of the sizes and in the locations indicated below, and provide an adequately looped water system prior to occupancy. The water improvements shall be in accordance with the City's master plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of the mains shall require approval of the City Engineer and shall be supported by appropriate calculations.
    a. Behymer Avenue – install 24" main along frontage.
    b. North Baron Avenue – install 24" main along frontage.
    c. Interior Streets – install 8" mains.

d. Three different alternatives are recommended to adequately provide water system redundancy to the development:
   i. Alternative 1:
      1. Tank T-9 – install 3.5-million-gallon storage tank at the southwest corner of the Perrin Avenue and North Sunnyside Avenue alignments.
      2. Perrin Avenue Alignment – install 24" main between North Marion Avenue and North Sunnyside Avenue.
      3. Sunnyside Avenue – install 24” main between the Perrin Avenue alignment and Heirloom Avenue. Provide a 12” stub for future distribution connection.
   ii. Alternative 2:
      1. Sunnyside Avenue – install 16" main between Shepherd Avenue and Teague Avenue.
      2. Sunnyside Avenue – install 12" main between Teague Avenue and Portland Avenue.
   iii. Alternative 3:
      1. Sunnyside Avenue – install 16" main between Shepherd Avenue and Teague Avenue.
      2. Teague Avenue – install 16” main from Sunnyside Avenue to the existing 16” water main installed by TM 6284.

78. Water Sampling Stations – dedicate and provide for water sampling stations per City standards, at the following locations:
    a. Outlot ZZ on the Perrin Avenue side of the gates.
    b. Outlot JJJ on the Baron Avenue side of the gates.
    c. NEC Hammel Avenue and Private Street ‘H’, on the Hammel side of the gates.

79. The applicant shall provide dedication of 15-foot-wide utility easements for all on-site water mains, hydrants, blow-offs, and water meters not located in otherwise dedicated rights-of-way.

80. The applicant shall install a City standard water service to each lot of the proposed subdivision. Water services shall be grouped at property lines to accommodate automatic meter reading system, including installation of connecting conduit. The water meter shall be placed in the sidewalk and not in planters or driveways.

81. The applicant shall notify all property owners’ annexed to the City and along streets where a new water main will be constructed to determine if they wish to be connected to City water. Property owners shall work directly with the applicant regarding costs and location. The applicant shall notify property owners that water connection fees are required if they choose to connect.

82. Prior to recording a final map of any phase, the applicant shall demonstrate to the satisfaction of the City Fire Chief and City Engineer that there is adequate water

pressure to serve the units to be constructed. The applicant shall work with the City Engineer to determine the adequacy of water supply/pressure for the proposed development.

Recycled Water

83. The applicant shall install recycled water mains of the sizes and in the locations indicated below. The recycled water improvements shall be in accordance with the City's master plans and shall match existing improvements. All areas utilizing recycle water for irrigation shall be clearly marked on the improvement plans. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of the mains shall require approval of the City Engineer and may require appropriate calculations.
    a. North Baron Avenue – install 8" main along frontage.
    b. Behymer Avenue – install 8" main along frontage.
    c. Paseos, Trails, and Neighborhood Parks – install mains as necessary to serve the paseos, trails, and the neighborhood parks.

Grading and Drainage

84. The applicant shall contact the Fresno Metropolitan Flood Control District (FMFCD) and address all requirements, pay all applicable fees required, obtain any required NPDES permit, and implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate storm water pollution. Plans for these requirements shall be included in the previously required set of construction plans, and shall be submitted to and approved by FMFCD prior to the release of any development permits.

85. Portions of the project appear to lie within a flood zone. The applicant shall comply with the requirements of the City's Municipal Code.

86. In the event permanent storm drainage facilities are not available, the applicant shall provide temporary on-site retention basins for storm water disposal and provide a cash deposit for each basin to offset the City's cost of maintaining the basins. The size and design shall be in accordance with the requirements of the City Engineer and may change based on design calculations and access requirements for maintenance. The temporary pond maintenance deposit shall be based on size, depth, expected maintenance schedule, etc. However, the property owner shall be responsible for periodic cleaning of toxic material. The temporary basin is solely for the convenience of the subdivision.

87. The owner of the property on which the temporary basin(s) are located shall backfilled said basin(s) within ninety (90) days after notice is given by the City that the basin(s) are no longer needed. In the event the owner fails to backfill said basin(s) within said 90 days, the City may cause the basin to be backfilled. A lien to cover the cost of the work will be placed on the property, including the costs to prepare and enforce the

lien. A covenant shall be prepared and recorded on the lot on which the basin(s) is/are located.

88. Grade differentials between lots and adjacent properties shall be adequately shown on the grading plan and shall be treated in a manner in conformance with City of Clovis Standard Drawing No. M-4 as modified by the City Council. Any retaining walls required on-site or in public right of way shall be masonry construction. All retaining walls shall be designed by a registered civil engineer.

Irrigation and Landscaping Facilities

89. The applicant, as a portion of the required tract improvements, shall provide landscaping and irrigation as required herein. The landscaping and irrigation shall be installed in public right-of-way and the area reserved for landscaping. The irrigation and landscape improvements shall be in accordance with the City's master plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Plans for the required landscaping and irrigation systems shall be prepared by an appropriately registered professional at the applicant's expense and shall be approved by the City of Clovis Planning and Development Services Department and Public Utilities Department prior to the beginning of construction or the recording of the final tract map, whichever occurs first. Landscape and irrigation facilities that the City Landscape Maintenance District shall maintain: the median island in Behymer Avenue. The landscape strip around the planned unit development may be maintained by a perpetual maintenance covenant.

90. The owner shall request annexation to and provide a covenant for the Landscape Maintenance District. The property owner acknowledges and agrees that such request serves as a petition pursuant to California State Proposition 218 and no further election shall be required for the establishment of the initial assessment. The assessment for each lot shall be obtained from the City for the tax year following the recordation of the final map. The estimated annual assessment per average sized lot is $524.53, which is subject to change prior to issuance of building permit or final tract map approval and is subject to an annual change in the range of the assessment in the amount of the Consumer Price Index, U.S. City Average, All Urban Consumers (CPI Index), plus two percent (2%). The additional landscaping enhancements that exceed the City norms and are specific benefit to the property, such as the landscaped area along the north side of Perrin Avenue, the landscaped area along the west side of North Hammel Avenue, entry features, columns, monuments, interior median islands, round-a-bouts, special streetlights, etc., if determined to be maintained by the Landscape Maintenance District, shall be maintained by an additional landscape maintenance assessment. The applicant shall provide construction costs and deposit with the City an amount equal to 50% of the value of the enhanced landscaping hardscape features, or an alternate amount approved by the City Engineer, such as columns, monuments, and special street lights, that exceeds the City norms. The applicant shall provide the City with an estimate of the annual maintenance for the

special lighting and landscaping enhancements that exceeds the City norms. The owner/developer shall notify all potential lot buyers before they actually purchase a lot that this tract is a part of a Landscape Maintenance District and shall inform potential buyers of the assessment amount. Said notification shall be in a manner approved by the City. The owner/developer shall supply all pertinent materials for the Landscape Maintenance District.

91. The applicant shall comply with the City of Clovis Water Efficient Landscape Requirements Ordinance.

92. The applicant shall contact and address all requirements of the Fresno Irrigation District (FID). This may include dedicating easements, piping or relocating any existing FID canals and ditches, replacing any existing irrigation piping, concrete lining or improving any existing canals, construction or reconstruction of any canals, culverts, and bridge crossings. Plans for these requirements and improvements shall be included as in the previously required set of construction plans, and shall be submitted to and approved by FID prior to the release of any development permits or recording of the final tract map. If a FID or private irrigation line is to be abandoned, the applicant shall provide waivers from all downstream users.

93. The applicant shall indicate on construction drawings the depth, location and type of material of any existing Fresno Irrigation District's irrigation line along the proposed or existing street rights-of-way or onsite. Any existing canals shall be piped. The material of the existing pipe shall be upgraded to the proper class of rubber gasket pipe at all locations unless otherwise approved by the City Engineer.

94. The applicant shall apply to the Fresno Irrigation District (FID) for transfer of irrigation water rights to the City of Clovis if the property has not already been removed from FID and transferred to the City. The applicant shall execute a “Request for Change of Relative Value” that can be obtained and processed through FID. The applicant shall provide a copy of the completed form to the City.

95. All existing agricultural irrigation systems either on-site or in public right of way, whether FID or privately owned, shall be identified prior to any construction activity on the site. Service to all downstream users of irrigation water shall be maintained at all times through preservation of existing facilities or, if the existing facilities are required to be relocated, the relocation and replacement of the existing facilities. It is the intent that downstream users do not bear any burden as a result of development of the site. Therefore, the applicant shall pay all costs related to modification, relocation, or repair of any existing irrigation facilities resulting from or necessitated by the development of the site. The applicant shall identify on site plans and construction plans, all existing irrigation systems and their disposition (abandonment, repair, relocation, and/or piping). The applicant shall consult with the Fresno Irrigation District for any additional requirements for lines to be abandoned, relocated, or piped. The applicant shall provide waivers from all users in order to abandon or modify any irrigation pipelines or for any service interruptions resulting from development activities.

96. The applicant shall provide a landscape and irrigation perpetual maintenance covenant recorded for landscaping installed in the public right-of-way behind the curb including easements that will not be maintained by the Clovis Landscape Maintenance District. A recordable covenant shall be submitted to and approved by the City of Clovis City Engineer prior to final map approval.

97. The applicant shall provide a perimeter wall perpetual maintenance covenant on all properties that have a perimeter wall that is installed on private property. A recordable covenant shall be submitted to and approved by the City of Clovis City Engineer prior to final map approval.

Miscellaneous

98. The applicant shall install streetlights per the attached street light exhibit. Streetlights along the major streets shall be installed on metal poles to local utility provider's standards at the locations designated by the City Engineer. Street light locations shall be shown on the utility plans submitted with the final map for approval. Streetlights at future traffic signal locations shall be installed on approved traffic signal poles, including all conduits and pull boxes. Streetlights along the major streets shall be owned and maintained by local utility providers. Proof of local utility provider's approval shall be provided. The applicant may install thematic lighting, as approved by the City Engineer. If the applicant chooses to install thematic lighting, the applicant shall provide a conceptual lighting plan identifying adjacent properties that may be incorporated with thematic lights to create a neighborhood effect. Thematic lighting owned by the City shall be maintained by an additional landscape maintenance assessment.

99. The applicant shall provide a Solid Waste Receptacle Locations covenant for Lots 25, 26, 35, 36, 41, 42, 43, 50, 51, 52, 61, 62, 63, 112, 113, 122, 123, 140, 141, 142, 152, 153, 212, 455, 456, 523, 524, 577, 578, 580, 581, 582, 583, 584, and any other lot located where solid waste receptacles cannot be properly serviced as determined by the Solid Waste manager. A recordable covenant shall be submitted to and approved by the City of Clovis City Engineer prior to final map approval.

100. The applicant shall install all major street monumentation and section corner monumentation within the limits of the project work in accordance with City Standard ST-32 prior to final acceptance of the project. Monumentation shall include all section corners, all street centerline intersection points, angle points and beginning and end of curves (E.C.'s & B.C.'s). The applicant/contractor shall furnish brass caps. Any existing section corner or property corner monuments damaged by this development shall be reset to the satisfaction of the City Engineer. A licensed land surveyor or civil engineer licensed to perform land surveying shall certify the placement of all required monumentation prior to final acceptance. Brass caps required for installation of new monuments or replacement of existing monuments shall be provided by the contractor/the applicant and approved by City prior to installation. Within five days

after the final setting of all monuments has been completed, the engineer or surveyor shall give written notice to the City Engineer that the final monuments have been set. Upon payment to the engineer or surveyor for setting the final monuments, the applicant shall present to the City Engineer evidence of the payment and receipt thereof by the engineer or surveyor.

101. A deferment, modification, or waiver of any engineering conditions shall require the express written approval of the City Engineer.

102. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.

Fresno Metropolitan Flood Control District (FMFCD) Comments
(Robert Villalobos, Department Representative – 559-456-3292)

103. The applicant shall refer to the attached FMFCD correspondence. If the list is not attached, please contact the Fresno Metropolitan Flood Control District for the requirements.

Fresno Irrigation District (FID) Conditions
(Laurence Kimura, Department Representative – 559-233-8227)

104. The applicant shall refer to the attached Fresno Irrigation District correspondence. If the list is not attached, please contact the FID for the list of requirements.

County of Fresno Health Department Conditions
(Kevin Tsuda, County of Fresno Health Department Representative – 600-3271)

105. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the Health Department for the list of requirements.

California Department of Transportation
(Christopher Xiong, Caltrans Representative – 908-7064)

106. The applicant shall refer to the attached Caltrans correspondence. If the list is not attached, please contact the Caltrans for the list of requirements.

Clovis Unified School District
(Michael Johnston, CUSD Representative – 327-9000)

107. The applicant shall refer to the attached CUSD correspondence. If the list is not attached, please contact the CUSD for the list of requirements.

San Joaquin Valley Air Pollution Control District
(Eric McLaughlin, SJVAPCD Representative – 230-5808)

108. The applicant shall refer to the attached SJVAPCD correspondence. If the list is not attached, please contact the SJVAPCD for the list of requirements.

County of Fresno Department of Public Works and Planning
(Elliot Racusin, Public Works and Planning Representative – 600-4245)

109. The applicant shall refer to the attached Fresno County Department of Public Works and Planning correspondence. If the list is not attached, please contact the Health Department for the list of requirements.

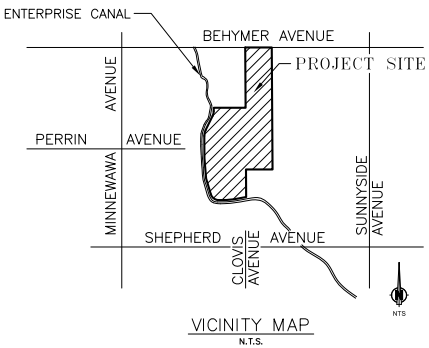
Administration Department Conditions
(John Holt, Department Representative – 324-2060)

110. Prior to approval, recordation or filing of an annexation, final map, or site plan, the property covered by the Project shall be included within or annexed to a Community Facilities District (CFD), established by the City for the provision of public facilities and services, for which proceedings have been consummated, and shall be subject to the special tax approved with the formation or annexation to the CFD. The CFD applies only to residential projects.

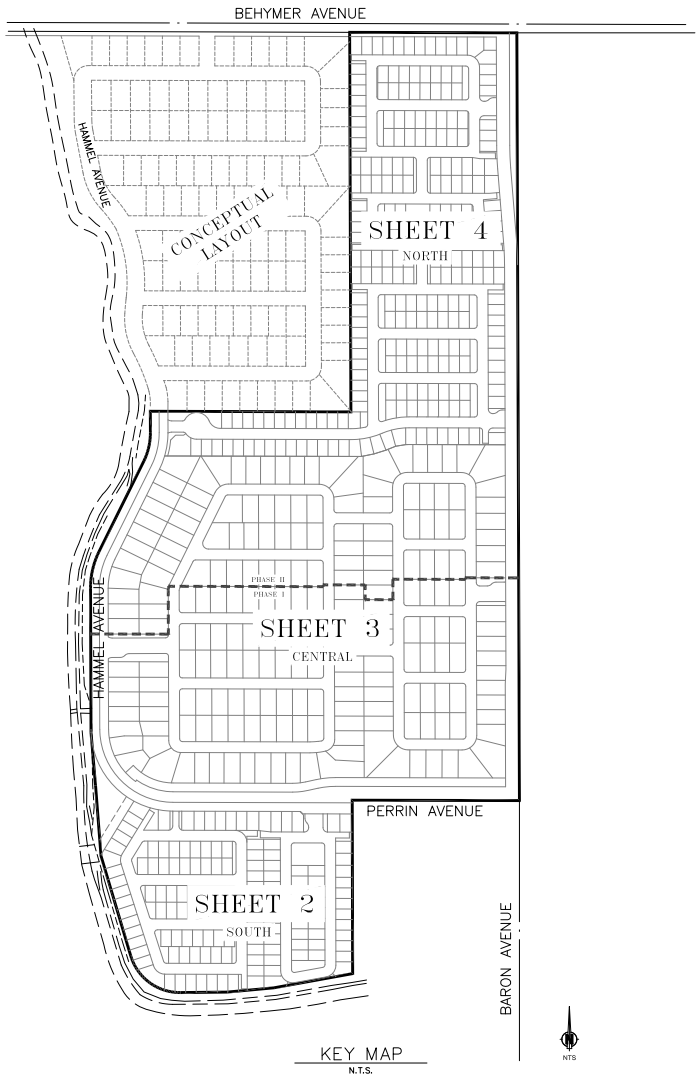
VESTING
TENTATIVE SUBDIVISION MAP
OF

TRACT NO. 6343

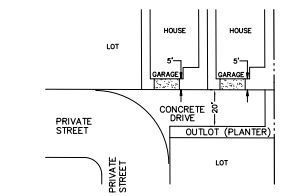
A PLANNED DEVELOPMENT
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA



VICINITY MAP
N.T.S.



KEY MAP
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.

LEGAL DESCRIPTION:

APN: 556-040-07 & 556-040-08

THE LAND REFERRED TO IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF FRESNO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCELS 1 AND 2 OF PARCEL MAP NO. 3488 IN THE COUNTY OF FRESNO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF, FILED MARCH 10, 1977 IN BOOK 23 OF PARCEL MAPS, AT PAGE 74, FRESNO COUNTY RECORDS.

EXCEPTING THEREFROM AN UNDIVIDED ONE-HALF INTEREST IN ALL OIL, GAS AND/OR MINERALS THEREIN AND THEREUNDER, TOGETHER WITH THE RIGHT AT ALL TIMES TO ENTER ON THE ABOVE DESCRIBED LANDS AND TAKE ALL THE USUAL, NECESSARY OR CONVENIENT MEANS TO BORE WELLS, MAKE EXCAVATIONS AND TO REMOVE ALL THE OIL, GAS AND/OR MINERALS THEREIN RESERVED, AND FOUND THEREON, AS EXCEPTED AND RESERVED IN THE DEED FROM BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, TO T.L. HERPER, DATED FEBRUARY 6, 1936, RECORDED FEBRUARY 20, 1936 IN BOOK 1473 PAGE 243 OF OFFICIAL RECORDS, INSTRUMENT NO. 4859.

APN: 556-030-14 (PORTION)

A PORTION OF PARCEL 1, AS DESCRIBED IN THE DEED, RECORDED ON SEPTEMBER 03, 2020, AS DOCUMENT NO. 2020-0118820, OFFICIAL RECORDS FRESNO COUNTY, SITUATED IN THE NORTH HALF OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, IN THE COUNTY OF FRESNO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 20; THENCE SOUTH 00°11'32" EAST, ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 20, A DISTANCE OF 1323.85 FEET, TO THE CENTER QUARTER OF SAID SECTION 20; THENCE SOUTH 00°08'35" EAST, ALONG THE EAST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 20, A DISTANCE OF 591.29 FEET; THENCE LEAVING LAST SAID EAST LINE, SOUTH 79°46'00" WEST, A DISTANCE OF 272.20 FEET; THENCE SOUTH 84°46'13" WEST, A DISTANCE OF 159.90 FEET; THENCE SOUTH 89°25'15" WEST, A DISTANCE OF 159.93 FEET, TO THE BEGINNING OF A TANGENT CURVE, CONCAVE NORTHEASTERLY; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE, WITH A RADIUS OF 175.00 FEET, THROUGH A CENTRAL ANGLE OF 74°01'42", AN ARC DISTANCE OF 226.11 FEET; THENCE NORTH 16°33'03" WEST, A DISTANCE OF 355.48 FEET; THENCE NORTH 04°28'27" WEST, A DISTANCE OF 241.23; THENCE NORTH 04°53'18" WEST 180.24 FEET; THENCE NORTH 00°11'32" WEST, A DISTANCE OF 492.40 FEET, TO THE BEGINNING OF A TANGENT CURVE, CONCAVE SOUTHEASTERLY; THENCE NORTHEASTERLY ALONG THE ARC OF LAST SAID CURVE, WITH A RADIUS OF 280.00 FEET, THROUGH A CENTRAL ANGLE OF 26°33'24", AN ARC DISTANCE OF 129.78 FEET; THENCE NORTH 26°21'51" EAST, A DISTANCE OF 342.65 FEET, TO THE BEGINNING OF A TANGENT CURVE, CONCAVE NORTHWESTERLY; THENCE NORTHEASTERLY ALONG THE ARC OF LAST SAID CURVE, WITH RADIUS OF 220.00 FEET, THROUGH A CENTRAL ANGLE OF 26°33'24", AN ARC DISTANCE OF 101.97 FEET; THENCE NORTH 00°11'32" WEST, A DISTANCE OF 72.87 FEET, TO A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 20; THENCE SOUTH 89°49'32" EAST, ALONG SAID NORTH LINE, A DISTANCE OF 683.80 FEET AND THE POINT OF BEGINNING;

NOTES:

1. THIS AREA IS SUBJECT TO FLOODZONES X & AH.
2. ALL IMPROVEMENTS SHALL BE AS REQUIRED BY THE CITY OF CLOVIS TO CITY STANDARDS, AND SHALL INCLUDE SANITARY SEWER, DOMESTIC WATER, UNDERGROUND POWER, TELEPHONE, GAS, CONCRETE CURBS, GUTTERS, SIDEWALKS, PERMANENT STREET PAVEMENT STREET LIGHTS, ETC.
3. THERE SHALL BE NO GRADE DIFFERENTIALS OF GREATER THAN 6" WITHIN 200 FEET OF THE SITE UNLESS APPROVED BY THE CITY OF CLOVIS DEVELOPMENT DEPARTMENT.
4. GREENWASTE TOTERS ARE TO BE ELIMINATED FROM LOTS 1-241 AND LOTS 455-590. YARD WASTE WILL BE REMOVED FROM SITE BY YARD MAINTENANCE CREWS. A GREENWASTE COVENANT WILL BE RECORDED AS NECESSARY.

EXISTING BUILDINGS
EXISTING BUILDINGS TO BE REMOVED

EXISTING TREES
EXISTING TREES TO BE REMOVED

EXISTING LAND USE DESIGNATION
MEDIUM DENSITY RESIDENTIAL

EXISTING ZONING
AE-20

PROPOSED ZONING
R-1-PRD

PROPOSED LAND USE DESIGNATION
MEDIUM HIGH DENSITY RESIDENTIAL

SOURCE OF WATER
CITY OF CLOVIS

SOURCE OF SEWAGE DISPOSAL
CITY OF CLOVIS

SOURCE OF WASTE DISPOSAL
CITY OF CLOVIS

SOURCE OF ELECTRICITY
PG&E

SOURCE OF GAS
PG&E

SOURCE OF CABLE T.V.
COMCAST

SOURCE OF TELEPHONE
AT&T

ASSESSOR'S PARCEL NUMBER
556-040-08, 556-040-07, 556-030-14 (PORTION)

OPEN SPACE
REQUIRED: 69,158 SF or 1.59 AC
PROVIDED: 84,994 SF or 1.95 AC

SITE AREA
NET AREA: 64.36 AC
GROSS AREA: 71.54 AC

NUMBER OF LOTS
590 LOTS & 66 OUTLOTS

DENSITY
8.25 DU/AC

AVERAGE LOT SIZE
3,329 SF

OUTLOT SCHEDULE

- OUTLOTS A, B, & C ARE FOR PRIVATE ROAD AND PUBLIC UTILITY PURPOSES.
- OUTLOTS D, E, ARE FOR PRIVATE RECREATION AND GREENSPACE PURPOSES.
- OUTLOT F IS FOR PUBLIC LANDSCAPING AND PUBLIC GATEWAY MONUMENT PURPOSES.
- OUTLOTS G ARE FOR PUBLIC PASEO AND LANDSCAPE PURPOSES.
- OUTLOTS H ARE FOR PUBLIC PARK PURPOSES.
- OUTLOTS K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, & AA ARE FOR PRIVATE LANDSCAPING AND PRIVATE PARKING PURPOSES.
- OUTLOTS BB & CC ARE FOR PRIVATE LANDSCAPING, PRIVATE PARKING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.
- OUTLOTS DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ, AAA, BBB, CCC, DDD, EEE, FFF, GGG, HHH, & III ARE FOR PRIVATE LANDSCAPING AND PUBLIC UTILITY PURPOSES.
- OUTLOTS JJJ, KKK, LLL, I, & J ARE FOR PRIVATE LANDSCAPING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.

Attachment A

TM6343 COVER SHEET

OWNER/SUBDIVIDER
Great Bigland, L.P.
7550 NORTH FRUIT AVENUE SUITE 102
FRESNO, CA. 93711
559-434-5733

Harbour & Associates
Civil Engineers
380 Clovis Avenue, Suite 300 • Clovis, California 93612
(559) 325-7676 • Fax (559) 325-7699 • e-mail:tomm@harbourengineering.com

DATE: 1-11-22
DRAWN BY: SDH

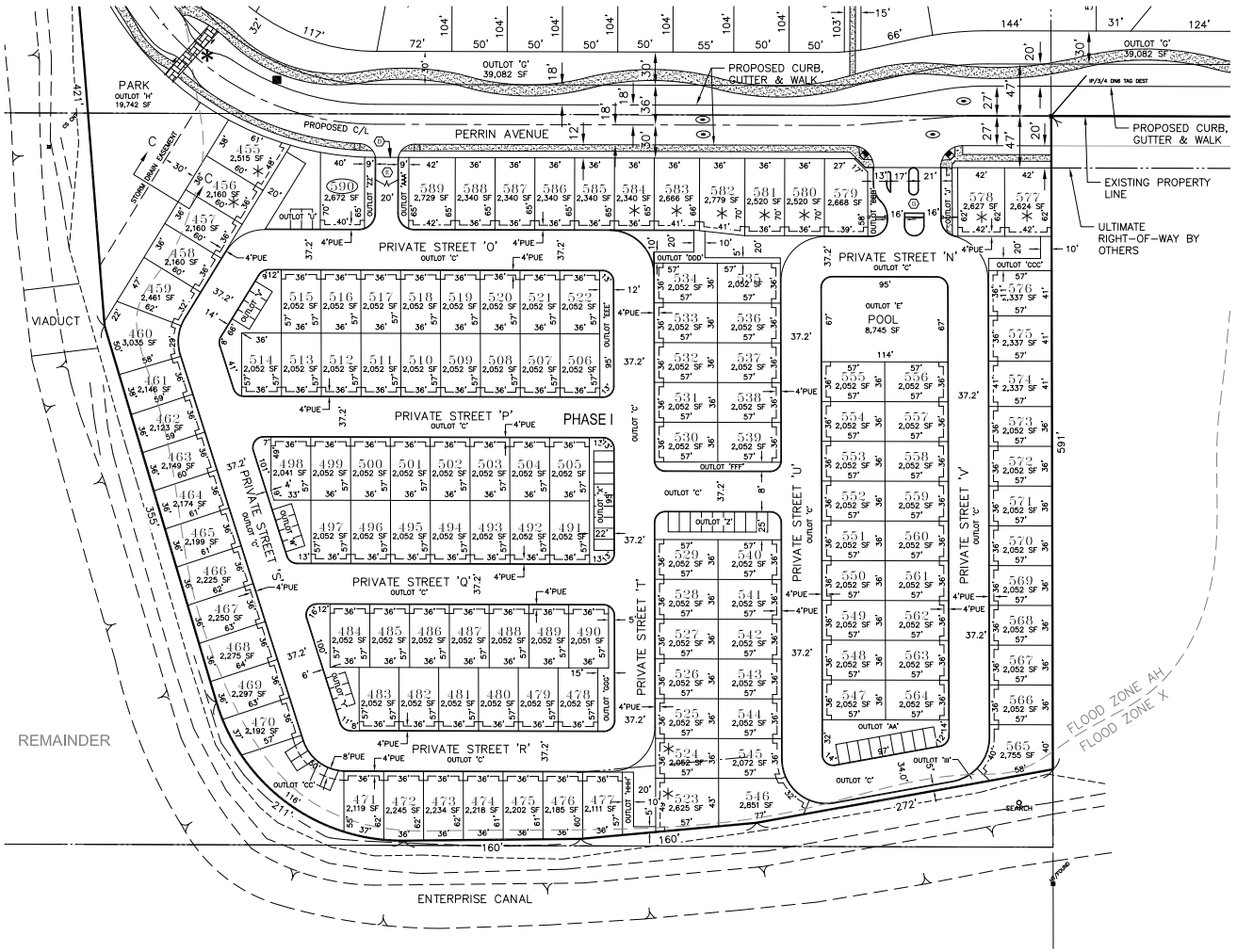
SHEET NO.
1
OF
4

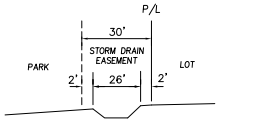
167

VESTING
TENTATIVE SUBDIVISION MAP
OF

TRACT NO. 6343

A PLANNED DEVELOPMENT
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA





SECTION C–C
NTS

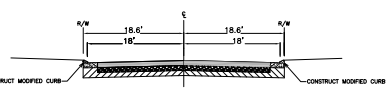
OUTLOT SCHEDULE

- OUTLOTS A, B, & C ARE FOR PRIVATE ROAD AND PUBLIC UTILITY PURPOSES.
- OUTLOTS D, E, ARE FOR PRIVATE RECREATION AND GREENSPACE PURPOSES.
- OUTLOT F IS FOR PUBLIC LANDSCAPING AND PUBLIC GATEWAY MONUMENT PURPOSES.
- OUTLOTS G ARE FOR PUBLIC PASEO AND LANDSCAPE PURPOSES.
- OUTLOTS H ARE FOR PUBLIC PARK PURPOSES.
- OUTLOTS K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, & AA ARE FOR PRIVATE LANDSCAPING AND PRIVATE PARKING PURPOSES.
- OUTLOTS BB & CC ARE FOR PRIVATE LANDSCAPING, PRIVATE PARKING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.
- OUTLOTS DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ, AAA, BBB, CCC, DDD, EEE, FFF, GGG, HHH, & III ARE FOR PRIVATE LANDSCAPING AND PUBLIC UTILITY PURPOSES.
- OUTLOTS JJJ, KKK, LLL, I, & J ARE FOR PRIVATE LANDSCAPING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.

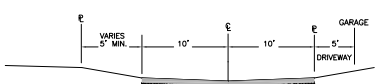
LEGEND:

- PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- PUE — PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- (E) — GATED EXIT ONLY & EMERGENCY ACCESS
- (E) — ENTRY/EXIT GATE
- INDICATES LOTS THAT ARE TO PLACE TRASH AND RECYCLABLE TOTERS ON PRIVATE STREET ON TRASH PICK-UP DAY. (SEE NOTE 4 ON SHEET 1)

SCALE: 1" = 60'
GRAPHIC SCALE
0 30' 60' 120'



TYPICAL 37.2' PRIVATE STREET
(PARKING ON BOTH SIDES)
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.

TM6343 - SOUTH

OWNER/SUBDIVIDER
Great Bigland, L.P.
7550 NORTH PALM AVENUE SUITE 102
FRESNO, CA 93711
559-431-7153

Harbour & Associates
Civil Engineers
369 Clovis Avenue, Suite 300 • Clovis, California 93612
(559) 325-7676 • Fax (559) 325-7699 • e-mail: jtorres@harbourandassociates.com

DATE: 11-17-21 | SCALE: 1"= 60' | DRAWN BY: SDH

168

SHEET NO. 2 OF 4

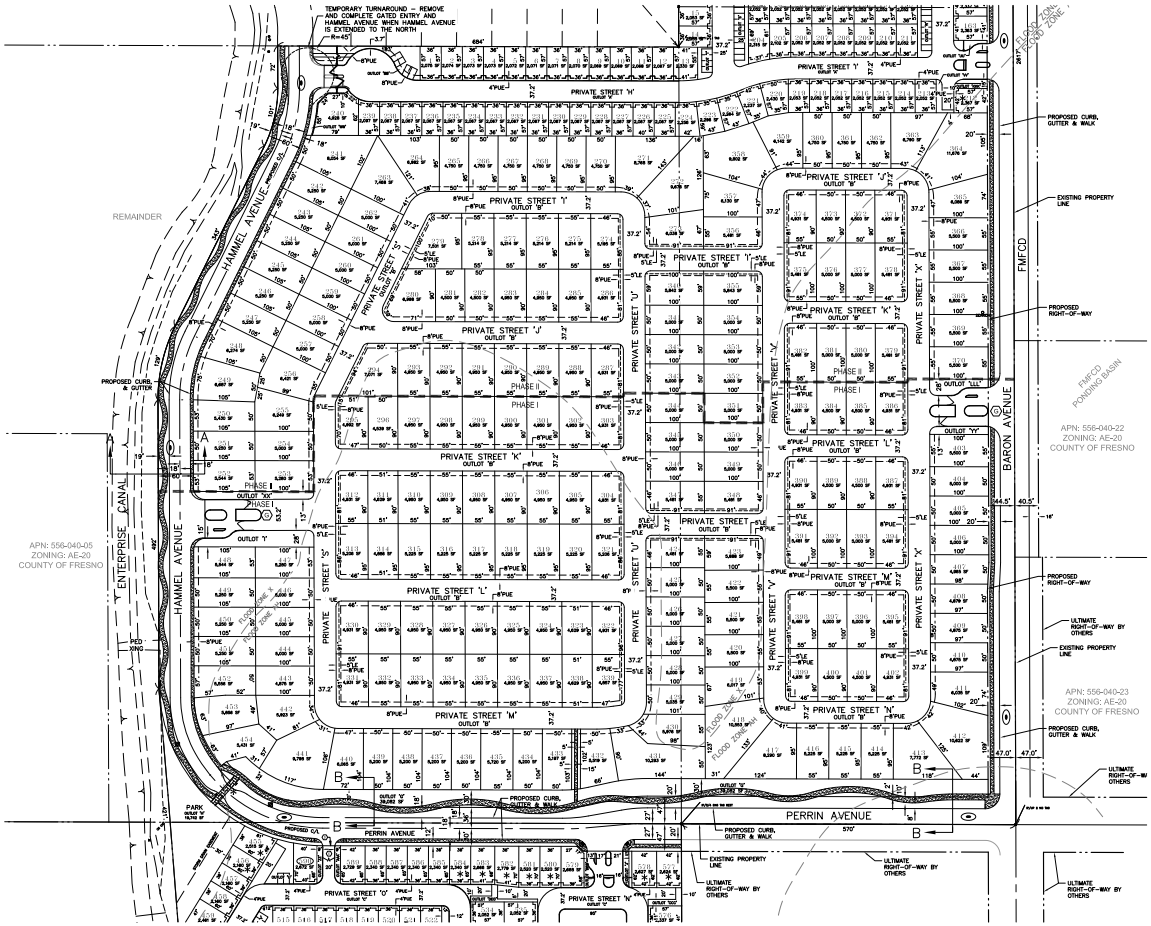
W.O. 6109-026

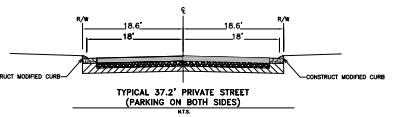
D-857

VESTING
TENTATIVE SUBDIVISION MAP
OF

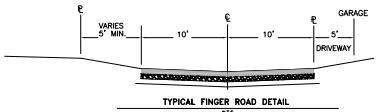
TRACT NO. 6343

A PLANNED DEVELOPMENT
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA





TYPICAL 37.2' PRIVATE STREET
(PARKING ON BOTH SIDES)
N.T.S.



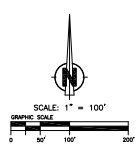
TYPICAL FINGER ROAD DETAIL
N.T.S.

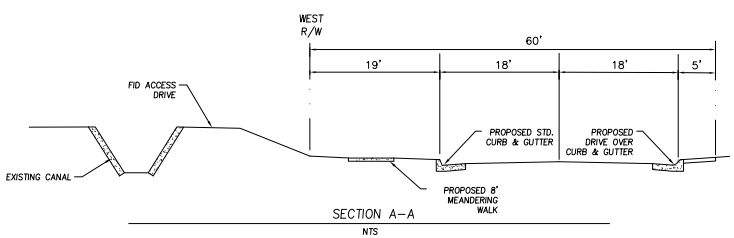
OUTLOT SCHEDULE

- OUTLOTS A, B, & C ARE FOR PRIVATE ROAD AND PUBLIC UTILITY PURPOSES.
- OUTLOTS D, E, ARE FOR PRIVATE RECREATION AND GREENSPACE PURPOSES.
- OUTLOT F IS FOR PUBLIC LANDSCAPING AND PUBLIC GATEWAY MONUMENT PURPOSES.
- OUTLOTS G ARE FOR PUBLIC PASEO AND LANDSCAPE PURPOSES.
- OUTLOTS H ARE FOR PUBLIC PARK PURPOSES.
- OUTLOTS K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, & AA ARE FOR PRIVATE LANDSCAPING AND PRIVATE PARKING PURPOSES.
- OUTLOTS BB & CC ARE FOR PRIVATE LANDSCAPING, PRIVATE PARKING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.
- OUTLOTS DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ, AAA, BBB, CCC, DDD, EEE, FFF, GGG, HHH, & III ARE FOR PRIVATE LANDSCAPING AND PUBLIC UTILITY PURPOSES.
- OUTLOTS JJJ, KKK, LLL, I, & J ARE FOR PRIVATE LANDSCAPING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.

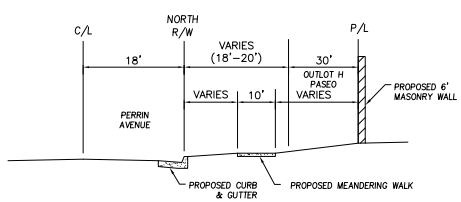
LEGEND:

⬭	PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
PUE	PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
LE	LANDSCAPE EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
(E)	EXIT ONLY & EMERGENCY ACCESS
(G)	ENTRY/EXIT GATE
(D)	DOUBLE GATE (10'X10') SWING IN AND SET BACK 20' FROM PERRY AVE. R/W
■	"CAUTION PEDESTRIAN CROSSING" SIGNAGE
✱	CONSTRUCT LIGHTED PEDESTRIAN CROSSING, SIMILAR TO THAT BUILT IN FRONT OF CLARK MIDDLE SCHOOL, OR APPROVED EQUAL





SECTION A–A
NTS



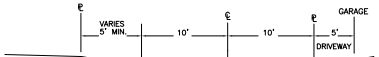
PROPOSED PASEO (SECTION B–B)
NTS

TM6343 - CENTRAL			
OWNER/SUBDIVIDER: Great Bigland, L.P. 7550 NORTH PALM AVENUE SUITE 102 FRESNO, CA. 93711 559-432-4700		169	SHEET NO. 3 OF 4
Harbour & Associates Civil Engineers 389 Clovis Avenue, Suite 300 • Clovis, California 93612 (559) 325-7676 • Fax (559) 325-7699 • e-mail:jtorres@harbourandassociates.com			
DATE: 11-17-21	SCALE: 1"= 100'	DRAWN BY: SDH	W.O. 2020-025

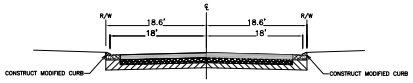
VESTING
TENTATIVE SUBDIVISION MAP
OF

TRACT NO. 6343

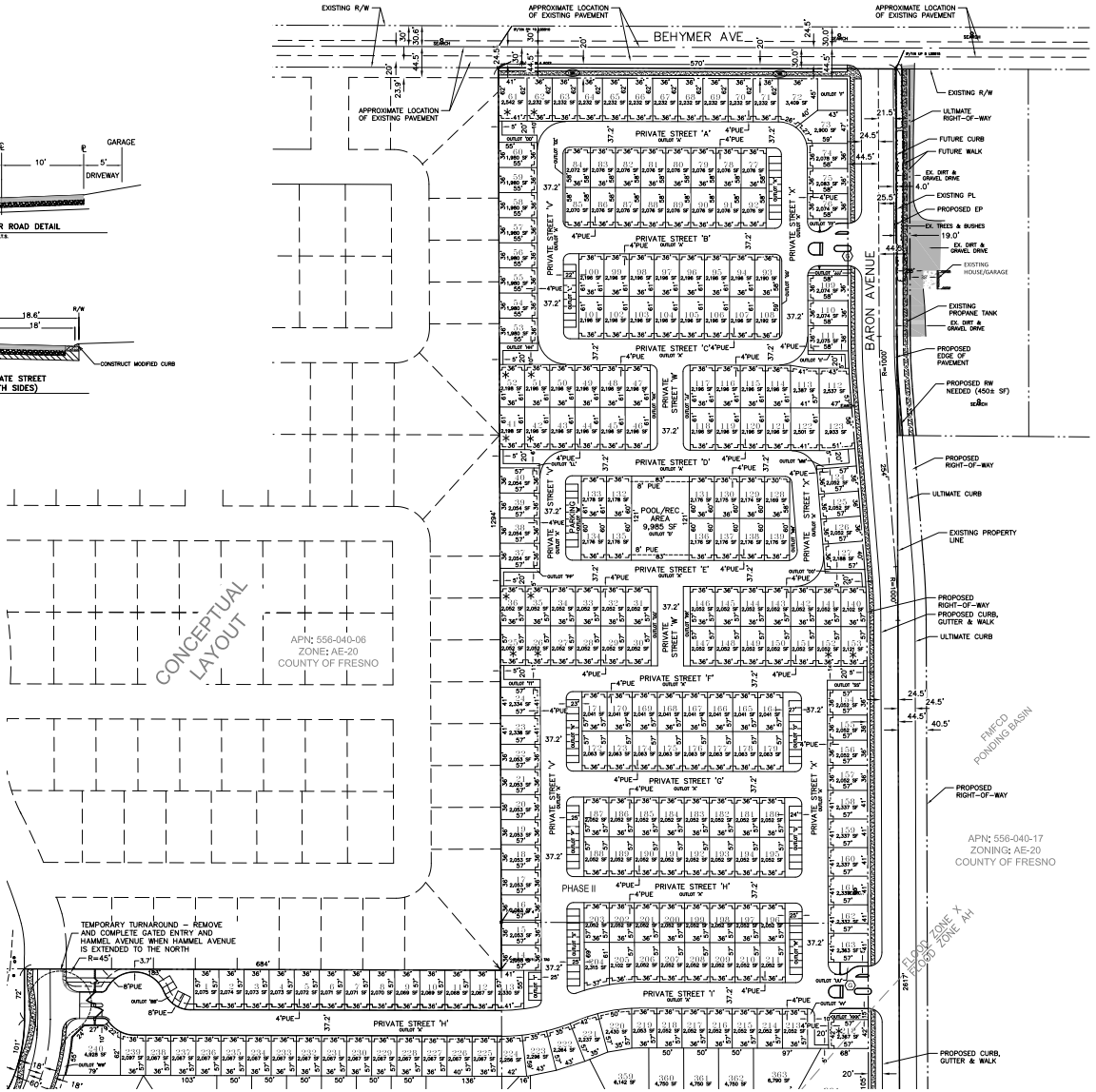
A PLANNED DEVELOPMENT
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA



TYPICAL FINGER ROAD DETAIL
N.T.S.



TYPICAL 37.2' PRIVATE STREET
(PARKING ON BOTH SIDES)
N.T.S.



SCALE: 1" = 80'
GRAPHIC SCALE
0 40' 80' 160'

OUTLOT SCHEDULE

- OUTLOTS A, B, & C ARE FOR PRIVATE ROAD AND PUBLIC UTILITY PURPOSES.
- OUTLOTS D, E, ARE FOR PRIVATE RECREATION AND GREENSPACE PURPOSES.
- OUTLOT F IS FOR PUBLIC LANDSCAPING AND PUBLIC GATEWAY MONUMENT PURPOSES.
- OUTLOTS G ARE FOR PUBLIC PASEO AND LANDSCAPE PURPOSES.
- OUTLOTS H ARE FOR PUBLIC PARK PURPOSES.
- OUTLOTS K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, & AA ARE FOR PRIVATE LANDSCAPING AND PRIVATE PARKING PURPOSES.
- OUTLOTS BB & CC ARE FOR PRIVATE LANDSCAPING, PRIVATE PARKING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.
- OUTLOTS DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ, AAA, BBB, CCC, DDD, EEE, FFF, GGG, HHH, & III ARE FOR PRIVATE LANDSCAPING AND PUBLIC UTILITY PURPOSES.
- OUTLOTS JJJ, KKK, LLL, & J ARE FOR PRIVATE LANDSCAPING, PRIVATE PEDESTRIAN, AND PUBLIC UTILITY EASEMENT PURPOSES.

LEGEND:

- INDICATES STREETS PREVIOUSLY DEDICATED FOR PUBLIC USE
- PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- PUE — PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- (E) EXIT ONLY & EMERGENCY ACCESS
- (G) ENTRY/EXIT GATE
- INDICATES LOTS THAT ARE TO PLACE TRASH AND RECYCLABLE TOTERS ON PRIVATE STREET ON TRASH PICK-UP DAY. (SEE NOTE 4 ON SHEET 1)

TM6343 - NORTH

OWNER/SUBDIVIDER
Great Bigland, L.P.
7550 NORTH PALM AVENUE SUITE 102
FRESNO, CA. 93711
559-230-4700

Harbour & Associates
Civil Engineers
389 Clovis Avenue, Suite 300 • Clovis, California 93612
(559) 325-7676 • Fax (559) 325-7699 • e-mail:lorrene@harbourandassociates.com

DATE: 11-17-21 | SCALE: 1"= 80' | DRAWN BY: SDH

SHEET NO. 4 OF 4

170

W.O. 6001-025

D-857

RESOLUTION 24-__

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS RECOMMENDING THAT THE CITY COUNCIL APPROVE A PLANNED DEVELOPMENT PERMIT FOR VESTING TENTATIVE TRACT MAP 6343 LOCATED NEAR THE SOUTHWEST AREA OF BEHYMER AVENUE AND THE SUNNYSIDE AVENUE ALIGNMENT

WHEREAS, Wilson Premier Homes, Inc. 7550 N. Palm Avenue, Suite 102, Fresno, CA 93711, submitted an application for a Planned Development Permit (2021-001) to deviate from the R-1 Zone District development standards associated with Vesting Tentative Tract Map 6343 for a 590-lot single-family subdivision ("Project") on approximately 71.54 acres of property located near the southwest area of Behymer Avenue and the Sunnyside Avenue alignment ("Property"); and

WHEREAS, the proposed Planned Development Permit is in keeping with the intent and purpose of the Zoning Ordinance; and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on April 8, 2024, mailed public notices to property owners within 800 feet of the Property ten (10) days prior to said Planning Commission hearing, and otherwise posted notice of the Public Hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on April 18, 2024; and

WHEREAS, the Planning Commission considered the CEQA analysis outlined in the staff report and elsewhere in the Administrative Record which determines that the Project meets the requirements pursuant to CEQA Guidelines and recommends that the City Council certify the Final Project Environmental Impact Report for the TM 6343 Project; adopt the CEQA Findings of Fact and a Statement of Overriding Consideration; and adopt a Mitigation Monitoring and Reporting Program; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing.

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Planning Commission hereby recommends approval of Planned Development Permit 2021-001 ("PDP2021-001"), subject to the conditions of approval set forth in **Attachment A** of this Resolution.

2. The Project satisfies the required findings for approval of a Planned Development Permit, as follows:

   a. The Project is allowed within the subject base zoning district;

   b. The Project is consistent with the purpose, intent, goals, policies, actions, and land use designations of the General Plan and any applicable specific plan;

   c. The Project is generally in compliance with all of the applicable provisions of this Development Code relating to both on- and off-site improvements that are necessary to accommodate flexibility in site planning and property development and to carry out the purpose, intent, and requirements of this chapter and the subject base zoning district, including prescribed development standards and applicable design guidelines;

   d. The Project ensures compatibility of property uses within the zoning district and general neighborhood of the proposed development;

   e. The Project would produce a comprehensive development of superior quality (e.g., appropriate variety of structure placement and orientation opportunities, appropriate mix of structure sizes, high quality architectural design, increased amounts of landscaping and open space, improved solutions to the design and placement of parking facilities, incorporation of a program of enhanced amenities, etc.) than which might otherwise occur from more traditional development applications;

   f. Proper standards and conditions have been imposed to ensure the protection of the public health, safety, and welfare;

   g. Proper on-site traffic circulation and control is designed into the development to ensure protection for fire suppression and police surveillance equal to or better than what would normally be created by compliance with the minimum setback and parcel width standards identified in Division 2 of this title (Zoning Districts, Allowable Land Uses, and Zone-Specific Standards);

   h. The subject parcel is adequate in terms of size, shape, topography, and circumstances to accommodate the proposed development; and

   i. The design, location, operating characteristics, and size of the proposed development would be compatible with the existing and future land uses in the vicinity, in terms of aesthetic values, character, scale, and view protection.

3. The Planning Commission could not make the findings necessary for approval of PDP2021-001 without the conditions of approval set forth in **Attachment A** to this Resolution.

4. The basis for the findings is detailed in the April 18, 2024, staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on April 18, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-__
DATED: April 18, 2024

_____
Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

Attachment A
Conditions of Approval – PDP2021-001
Planning Division Comments
(Lily Cha, Senior Planner - (559) 324-2335)

1. The developer shall construct a neighborhood park with associated amenities, additional landscaping areas, open space areas, per **Attachment 8** of this report.

2. The amenities required for this planned development include the following:

    a. A recreational area within each of the Elevations gated communities, which includes a pool, restroom facility, outdoor shower, cabana/ pergola, and lawn chairs. Specific amenity details will be reviewed during the civil plan review process.
    b. A linear park adjacent to the north side of Perrin Avenue that includes walking path, running path, benches, trash receptacles, enhanced landscaping, and lighting.
    c. An approximately 13,930 square feet park space with fitness equipment.
    d. An enhanced sidewalk pattern along the west side of the Hammel Avenue including a 19-foot-wide right-of-way with an 8-foot meandering sidewalk, and enhanced landscaping.

3. The proposed project must also produce a comprehensive development of superior quality than which might otherwise occur from more traditional development on the site. This could include an enhanced entry point, an embellished block wall on both street frontages, and superior exterior elevation design, all of which will be reviewed and approved through the civil plan review process and residential site plan review.

4. The developer shall design and install the Community Gateway (Community Corner Paseo) at the northwest corner of Behymer and Baron Avenues. The Corner Paseo shall be designed to meet the intent outlined in the Heritage Grove Guidelines. Final approval of the design shall be made by the Director of Planning and Development Services.

5. The developer shall construct a minimum six-foot high solid split face masonry wall along the Behymer and Baron Avenues. The masonry wall along Baron Avenue should incorporate tubular steel pedestrian gates in areas where internal driveways front Baron Avenue (Refer to example from TM 6168 in Loma Vista). The masonry walls shall incorporate angled corners at entries, and columns at the corners and ends.

6. Landscape features and forms within amenity areas shall be consistent with Heritage Grove Design Guidelines. Details shall be provided in the construction plan.

7. No more than two of the same unit type (floor layout and exterior materials package) shall be repeated side by side. When two of the same units are repeated side by side,

they shall be different colors. These identical provisions may be waived by the City Planner on a specific lot basis within the project when the size or configuration of a lot would otherwise prevent compliance with the above requirements of any other siting or setback/yard requirements established under this application. If such a waiver is requested, the developer and City Planner shall work together to ensure that any sitings of units not in compliance with the above requirements shall be of different materials and elevations in order to minimize any adverse visual impacts that may result.

8. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in §9.24.100, of the Clovis Municipal Code.

9. Community areas within each gated neighborhood shall adhere to its corresponding development standards.

10. Development standards for the Elev8ions lots/ homes of TM6343 shall be as follows. This is applicable to lots 1-240 & 455-590:

Lot Coverage:	65% Max
Maximum Height:	2-stories not to exceed 35 feet
Minimum Lot Size:	1,800 square feet
Minimum Parcel Width:	36 feet
Minimum Curved Parcel Width:	36 feet
Minimum Corner Parcel Width:	36 feet
Minimum Parcel Depth:	50 feet
Front Setback to garage, living area:	05 feet
Front Setback to Projections and/or Porch/ Patio:	04 feet
Corner/ Reversed Corner Street Side Setback:	03 feet
Interior Side Yard Setback (opposite from garage):	03 feet
Interior Side Yard Setback (garage side):	05 feet
Rear Yard Setback:	04 feet
Garages:	20’x20’ interior dimension (**2-car**)
	10’x20’ interior dimension (**1-car**)

11. Development standards for the Regent Park lots/ homes of TM6343 shall be as follows. This is applicable to lots 240-454:

Lot Coverage:	60% Max
Maximum Height:	2-stories not to exceed 35 feet
Minimum Lot Size:	4,500 square feet
Minimum Parcel Width:	50 feet
Minimum Curved Parcel Width:	25 feet
Minimum Corner Parcel Width:	53 feet
Minimum Parcel Depth:	90 feet
Front Setback to garage/ living area:	18 feet/ 10 feet
Front Setback to Projections and/or Porch/ Patio:	09 feet
Corner/ Reversed Corner Street Side Setback:	03 feet (fence)/ 08 feet (living)

Interior Side Yard Setback (opposite from garage):	03 feet
Interior Side Yard Setback (garage side):	05 feet
Rear Yard Setback:	08 feet
Garages:	20’x20’ interior dimension (**2-car**)
	9’x15.5’ additional tandem

12. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.

13. The developer shall utilize street lights along local and private streets within the development area that are of the same design and luminosity as surrounding developments within Heritage Grove.

14. A residential site plan review (RSPR) is required to memorialize building plans and elevations for the different product types of TM6343. Specific color and materials of the models, walls, amenities, landscaping, and fencing will be evaluated through the civil plans.

Wilson Homes, Inc.
Justification for a General Plan Amendment
January 11, 2023

Applicant:	Wilson Homes, Inc. Mr. Leo Wilson 7550 N. Palm Ave., Suite 102 Fresno, CA 93711
Property Owner:	Great Big Land, LP 7550 N. Palm Ave., Suite 102 Fresno, CA. 93711
Representative:	Dirk Poeschel Land Development Services, Inc. 923 Van Ness Ave., Suite No. 200 Fresno, CA 93721
APN:	556-030-14, 556-040-07 & 08
Current Zoning:	AE-20
Area:	71.54 ± gross acres
Plan Area:	Heritage Grove Master Plan

REQUEST

The applicant, Wilson Premier Homes, Inc. (Wilson Homes), proposes to increase the density from Medium Density Residential (4.1 to 7.0 du/acre) to Medium High Density Residential (7.1 to 15.0 du/ acre) for a 71.54 gross acre parcel located at the southwest corner of Behymer and Baron Avenues, east of the Enterprise Canal. Please see the attached vicinity map and Tentative Tract Map No. 6343 prepared by Harbor & Associates of Clovis.

The proposed project will include two distinct product types; the *Elev8ions* and the *Regent Park* products which are successfully marketed in Clovis.

BACKGROUND and PROJECT DESCRIPTION

The 71.54 acres of Wilson Homes property is designated for Medium Density Residential (4.1 to 7.0 du/acre) uses. The existing designation would allow a range of 294 to 501 single-family homes. The proposed modification to allow for Medium High Density Residential, which is *one* general plan classification more intense, would generate a maximum of 1,074 single- family homes. As illustrated on Tentative Tract Map No. 6343 prepared by Harbour & Associates, Wilson Homes is proposing to develop 590 single-family homes with a density of 8.25 ± du/acre,

which is less than the median number of units allowed for the Medium High Density Residential land use designation.

The proposed density of 8.25 ± du/acre would allow Wilson Homes to provide a variety of housing types of high quality and meet functional market affordability. While density is often a point of interest, and with building materials soaring in cost, affordability relies even more on density. The cost and scarcity of materials has reached unprecedented levels with dramatic price increases and product scarcity. Communities, buyers, and developers are faced with not building and not providing for substantial demand detailed by various statewide mandates to build more homes to address the statewide shortage or to address the market challenges by adaptation.

The 23.16 +/- acre western portion of the property is designated in the Heritage Grove Master Plan for open space uses. Wilson Homes was aware of this open space designation at the time the site was purchased. Wilson Homes will cooperate with the city to assure that portion of the site will be developed as an open space community amenity in accordance with city policies for such park lands. Nonetheless, the loss of the 23.16+/- acres place an economic burden on the development as economies of scale are reduced.

The proposed site is irregular in shape with its entire west side abutting the Enterprise Canal. The Enterprise Canal represents a natural physical barrier to the site. The Heritage Grove Trail Circulation Plan indicates conceptual crossings over the canal to the subject site in two locations, a pedestrian bridge to the west and a viaduct to the southwest of Tentative Tract Map No. 6343 (*see Figure 1 below*). Additionally, a Community Corner Paseo is required for the northeast corner of Tentative Tract map No. 6343, per the Heritage Grove Circulation Plan.

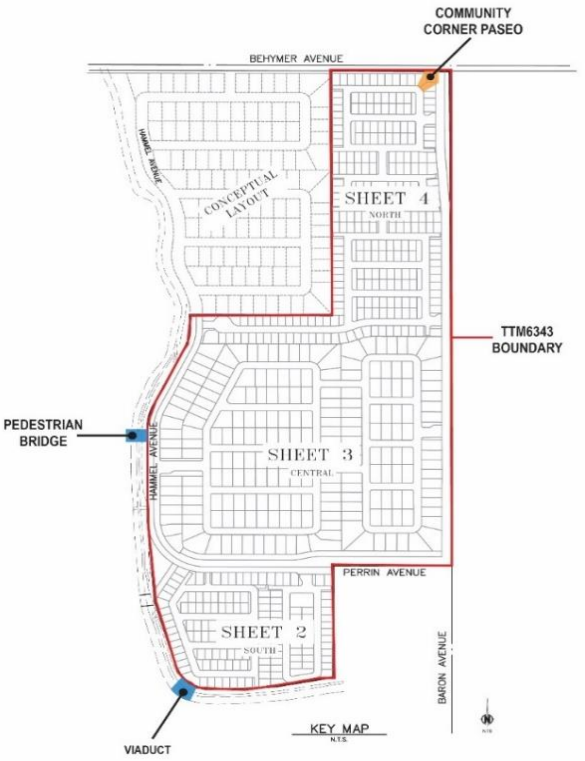


Figure 1 – Canal and Trail Connectivity

The project will be served by community water and sewer provided by the City of Clovis. The project is within the boundaries of the Fresno Metropolitan Flood Control District which will provide storm water management services and infrastructure to the proposed subdivision and its surroundings.

JUSTIFICATION

The proposed General Plan Amendment should be granted based on the reasons provided below.

Project Objectives

1. Provide a mix of high-quality housing within the northern new growth area of the City of Clovis.

2. Develop a site proximate to an urban trails system that provides a project amenity that also improves resident's health by providing a safe and convenient recreational venue while lowering potential environmental impacts by reducing the reliance on the automobile.

3. Meet demand for affordable, market rate housing in the City of Clovis.

Section 9.86.0 Mandatory Findings for Approval of a Plan Amendment

1. The proposed amendment is internally consistent with the goals policies and actions of the general plan.

Below is a comprehensive review of all applicable general plan policies and how the proposed project is consistent with those goals, policies and actions.

2. Proposed amendment would not be detrimental to the public interest health safety convenience or general welfare of the city, and

The project is the subject of an environmental impact report which is the most detailed assessment of a project's potential to adversely affect the environment. The applicant is quite certain that the project is in the public interest and that any potentially significant environmental impacts can be addressed as is typical with City of Clovis projects.

The proposed project will develop in accordance with City General Plan goals and objectives at a slightly higher density. This proposed density is justified by the need for more housing, more affordable housing and the substantial evidence that suggest that higher density developments reduce urban delivery costs and increase inhabitants health benefits.

3 If applicable, the parcel is physically suitable including absence of physical constraints, access, compatibility with adjoining land uses and provisions of utilities to the requested anticipated projects.

The project includes a proposed subdivision map which requires a finding that the subject site is physically suited for the proposed use; that access meet all applicable standards and the utilities are available or will be extended by the applicant to serve the proposed development.

Wilson Homes is proud of its 50-year tradition of being compatible with its surroundings and neighborhoods in which their projects are located. The company is also proud of making a positive attribute to the Fresno Clovis areas with quality homes of sustained attractiveness for decades.

4. **There is a compelling reason for the amendment.**

As described, the proposed density is justified by the need for more housing, more affordable housing and the substantial evidence that suggest that higher density developments reduce urban delivery costs and increase inhabitants health benefits.

The subject site is of an odd shape and will require extra ordinarily expensive public improvement The slight increase in density addresses a market demand for the housing proposed by the project and lowers per unit infrastructure costs thus improving affordability.

At the time the land use designation was adopted for the subject property, development costs and related infrastructure costs were not accelerating at the rate as is occurring now. In fact, some basic project material is in such short supply, there delivery time cannot be guaranteed. As stated above, the proposed density is justified by the need for more housing, more affordable housing and the substantial evidence that suggest that higher density developments reduce urban delivery costs and increase inhabitants health benefits.

Consistency with the Heritage Grove Master Plan

The project proposed by Wilson Homes follows the goals detailed in the Heritage Grove Master Plan & Design Guidelines. The Plan goals are met by the project in the following ways:

1. **Establish an overall theme and quality for Heritage Grove.**

The high-quality homes provided by Wilson Homes would incorporate seamlessly into the theme and quality that the Heritage Grove Master Plan visions. As seen in other Wilson Homes communities throughout Clovis, Wilson Homes offers projects which incorporate into the themes of the master plan communities in which it resides. For Tentative Tract Map No. 6343, both *Elev8ions* and *Regent Park* will provide prominent characteristic of cultural and agricultural heritage, as set forth in the Heritage Grove Master Plan.

2. **Illustrate and direct the intended architectural, landscape and site elements to reinforce the theme and quality.**

   The products proposed by Wilson Homes will architecturally be implemented and will follow the Heritage Grove Design Guidelines. Wilson Homes products will be reviewed by the Residential Site Plan Review entitlement for consistency and to reassure the city that the neighborhoods will comply with community theme and character. Both the *Elev8ions* and *Regent Park* product will provide a contemporary, attractive and aesthetically pleasing design that fits into the vision of the Heritage Grove Master Plan.

3. **Provide criteria and examples of expected design qualities and treatments.**

   The proposed project will provide a high-quality residential development which will fit into the vision of the Heritage Grove Master Plan and Design Guidelines. Wilson Homes is historically known for its top-quality homes which are constructed with high quality materials. Market research and product sales history accumulated by the developer indicates that both products have a wide appeal to varying age groups, economic, and demographic diversity**.**

4. **Refine and implement the Goals and Objectives of the Clovis General Plan.**

   Please see below for a full explanation of how the proposed project meets the goals and objectives of the Clovis General Plan.

Consistency with General Plan Housing Goals

The proposed project meets the following General Plan Goal and Polices:

- **Goal 3: Orderly and sustainable outward growth into three Urban Centers with neighborhoods that provide a balanced mix of land uses and development types to support a community lifestyle and small-town character.**

  Tentative Tract Map No. 6343 is being proposed within the Northwest Urban Center in Clovis. The proposed project will offer future residence the opportunity to live and enjoy all future land uses, such as retail, recreational, public, proposed by the Heritage Grove Master Plan.

  - **Policy 3.6 Mix of housing types and sizes. Development is encouraged to provide a mix of housing types, unit sizes, and densities at the block level. To accomplish this, individual projects five acres or larger may be developed at densities equivalent to one designation higher or lower than the assigned designation, provided that the density across an individual project remains consistent with the General Plan.**

As stated above, two housing products are proposed; the *Elev8ions* product which is an upscale residential product focused on the young professional in the move up market and the mature buyer who desires less yard maintenance. The other product is the *Regent Park* which is also an upscale residence with a focus on the more traditional buyer who desires a larger lot and perhaps a larger home. Both products attract a large portion of current Clovis residents.

The proposed project encompasses a land area of 71.54 gross acres. The General Plan designation for the subject site is Medium Density Residential which allows for 4.1 to 7.0 du/acre. The proposed modification to the General Plan would change to Medium High Density Residential and would allow for 7.1 to 15.0 du/acre, meeting policy 3.6 by increasing the general plan designation to one designation higher.

- **Goal 5: A city with housing, employment, and lifestyle opportunities for all ages and incomes of residents.**

The proposed project will provide a mix of housing sizes and lifestyle opportunities for all ages. The two proposed product types focus on meeting varied housing lifestyles and income levels of the Clovis market.

- **Policy 5.1 Housing variety in developments. The Clovis General Plan has been planned to provide a variety of housing product types suitable to each stage of a person's life. Each development should contribute to a diversity of housing sizes and types within the standards appropriate to the land use designation.**

  As stated above, the two proposed product types focus on meeting varied housing lifestyle categories. The *Elev8ions* and *Regent Park* products were specifically designed to address distinct elements of the Clovis residential market. Each product contributes to the diversity of housing sizes and types while still delivering the decades long tradition of quality Wilson homes.

  Market research and product sales history accumulated by the developer indicates that both products have a wide appeal to a varying age group and economic and demographic diversity**.**

- **Policy 5.2 Ownership and rental. Encourage a mixture of both ownership and rental options to meet varied preferences and income affordability needs.**

  The proposed project is intended to provide for two distinct ownership opportunities based on market demand. Market research performed by the developer indicates that both projects appeal to a varying economic demographic diversity. Incidental to the sale of the homes, there is some conversion to rental units, which will give an opportunity for people seeking to rent a unit the

opportunity to do so. It should be noted there is no legal way for the developer to prohibit the rental of units.

- **Policy 5.3 Innovative housing. Encourage innovative housing product types, including multigenerational, cooperative, and variations on live-work housing.**

  Both the *Elev8ions* and *Regent Park* products are currently offered in the Clovis market. Over time, both products have been modified to improve upon their design to better adapt to changing market demand. The *Elev8ions* and *Regent Park* products have been widely accepted by a broader range of the market with a greater range of demographic, income and lifestyle appeal.

  As mentioned previously, the *Elev8ions* product is an upscale detached single-family residential product of a slightly higher density specifically developed for the first-time buyer or mature buyer who does not want a large lot. The product goal is to build a quality home on a small lot with great livability.
  The *Regent Park* product is also an upscale residence with a focus on the more traditional buyer who desires a larger lot and perhaps a larger home. Both products attract a large portion of current Clovis residents.

- **Goal 6: A city that grows and develops in a manner that implements its vision, sustains the integrity of its guiding principles, and requires few and infrequent amendments to the General Plan.**

  The proposal to change the General Plan land use/circulation classifications is consistent with the Heritage Grove Design Guidelines by providing a quality residential development to accommodate a variety of lifestyles.

  - **Policy 6.1 Amendment criteria. The City Council may approve amendments to the General Plan when the City Council is satisfied that the following conditions are met:**

    A. The proposed change is and will be fiscally neutral or positive.

    In accordance with city policies, the proposed project will pay a range of development and impact fees and will install a variety of public improvements. The proposed homes are of a high quality which assures sustainability not only of the homes, but of the community in which they are located. No information exists to suggest the project will not be revenue neutral to the city.

    1. School Fees of $6.6 million to Clovis Unified School District

    a. Elev8ions - 1,545 sq. ft. average
    376 units x 1,545 sq. ft. = 827,200 sq. ft. x $4.67 per sq. ft. = **$2.71 million**

b. Regent Park-2,266 sq. ft. average
214 units x 2,266 sq. ft. = 484, 924 sq. ft. x $4.67 per sq. ft. = **$2.26 million**

2. Regional Mitigation Fees

a. Reginal Transportation Mitigation Fee $2,143/unit x 590 units = **$1,264,370**

b. San Joaquin Unified Air Pollution Control Air District- $500/unit x 590 units= **$295,000**

3. Clovis Community Facility District Public Safety Annual Assessments $156,869.20

590 x $265.88/unit = **$156,869.20 per year for Clovis Public Safety (fire/police)**

B. The proposed change can be adequately served by public facilities and would not negatively impact service on existing development or the ability to service future development.

The proposed change can be adequately served by public facilities and will not negatively impact service on existing development or the ability to service future development. In fact, all the available information suggests that a slight increase in residential densities has a positive downward influence on service delivery costs.

C. The proposed change is consistent with the Urban Village Neighborhood Concept when within an Urban Center.

The proposed project is complementary to the Heritage Grove Master Plan. The proposed densities are reasonable and consistent with studies that suggest such densities reduce public and private cost of residential development. The proposed project will accelerate the completion of the plan area.

- **Policy 6.2 Smart growth. The city is committed to the following smart growth goals.**

A. Create a range of housing opportunities and choices.

As described above, the proposed project offers two distinct housing products that appeal to a wide market base.

B. Create walkable neighborhoods.

The project will incorporate trails and pedestrian connection to enhance and promote walking and reduce the reliance on fossil fueled transportation

sources to schools, and the Heritage Grove City Center Villages North and West.

The City Center Villages North and South Specific Plan is an area with the Heritage Grove Master Plan which will consist of approximately 210 ± acres of residential, commercial, and mixed-use developments. One of the main goals of the plan is to promote a healthy lifestyle by providing trails, parks, and pedestrian connectivity for all future residents to enjoy. A substantial body of empirical information exists indicating that walkability also has a positive influence on public health.

C. Encourage community and stakeholder collaboration.

Wilson Homes has committed to an appropriate outreach to the community to define the project characteristics and related compatibility.

D. Foster distinctive, attractive communities with a strong sense of place.

The project developer is well-known for developing attractive communities with a strong identity. This Wilson Homes project will not be an exception to historic high quality and design standards by integrating the project with its surroundings and linking with the master plan proposed open space areas that will create an attractive, distinctive project.

E. Make development decisions predictable, fair, and cost-effective.
Wilson Homes believes that there is ample justification for the proposed project and trusts that the public hearing and land use entitlement process will result in the approval of the request.

F. Mix land uses.

Please see the information above regarding the proposed mix of product.

G. Preserve open space, farmland, natural beauty, and critical environmental areas.

The proposed project will incorporate a trail connection to the regional trail system and facilitate development of a community park located to the west of the subject project. Consistent with the *Landscape of Choice*, the proposed slight increase in densities reduces pressure to convert nonurban farmland to urban purposes.

H. Provide a variety of transportation choices.

As mentioned above, the project will incorporate trails and pedestrian linkage to enhance walkability and reduce the reliance on fossil fueled transportation sources.

As stated in the Heritage Grove Master Plan, a roughly 30-acre community park will be constructed to the west of Tentative Tract Map No. 6343. The project will also provide a variety of open spaces throughout the development. Additionally, a community corner paseo will provide a reciprocal connection from the project's housing, community park, and will create future connectivity to the proximate planned school and community business center, as well as connectivity to other community features.

Information developed when the *Landscape of Choice* was adopted, indicated that slight increases in residential densities promoted the use of non-motorized travel and increases in bus ridership.

I. Strengthen and direct development toward existing communities.

The proposed project is part of the Heritage Grove Master Plan. The project will strengthen the commitment to the planned area by providing a market sensitive product with exceptional master plan qualities.

J. Take advantage of compact building design.

The proposed products have evolved to be more efficient and still meet market demand for high quality housing on smaller than traditional sized lots**.**

K. Enhance the economic vitality of the region.

Completion of the proposed project will contribute to the completion of the Heritage Grove Master Plan area which was an integral part of the city's three urban village concepts. The proposed new housing will provide quality homes for employees and consumers thus contributing to the region's economic vitality.

L. Support actions that encourage environmental resource management.

The proposed project seeks to create greater service delivery efficiencies, consume less fossil fuels which improves the quality of life and air quality by developing trails and open space amenities.

M. Other

The applicant was recently informed that due to a clerical error with APN maps and other documents resulted in a delayed recognition by Fresno County that some of the land to be entitled remains encumbered by a Williamson Act contract. Wilson Homes has begun working with Fresno County staff to file a Notice of Non-Renewal and cancel the contract on the property. County staff has assured the Wilson Homes that the process to remove the contracted property from the Williamson Act can be completed in about 4 months, which is well before the project environmental documentation will be completed.

CONCLUSION

For the reasons detailed above, Wilson Homes respectfully requests support of the proposed project as it is consistent with the Clovis General Plan, the Heritage Grove Master Plan, the *Landscape of Choice* and a variety of market factors.

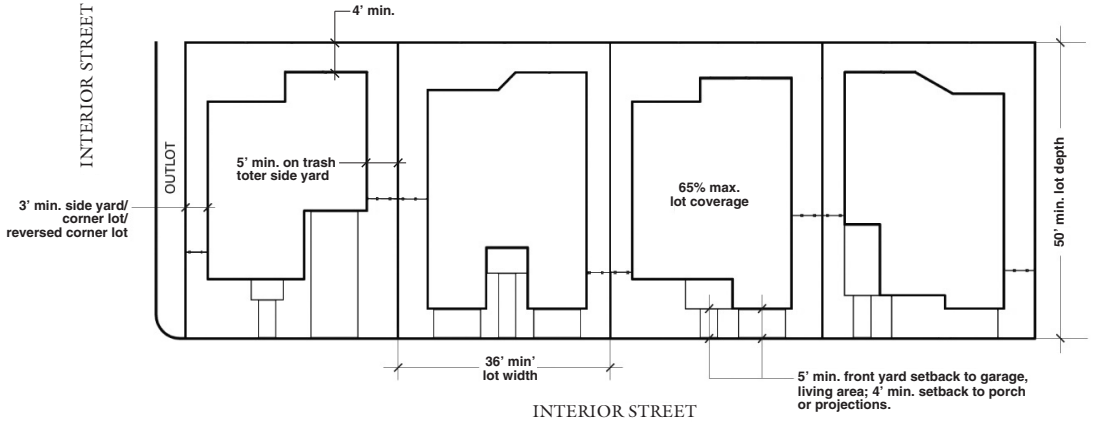
m:\current clients\wilson-tt-6343 behymer 21-21\justification.docx

TRACT 6343 - Elev8ions

Residential Land Use Development Standards

TRACT 6343 – SOUTH SIDE OF BEHYMER EAST OF MINNEWAWA

LAND USE	DEVELOPMENT STANDARDS	
SINGLE-FAMILY RESIDENTIAL	**STANDARD**	**NOTES**
DESIGNATION		
Zone District	R-1-PRD	
GP Density Range	7.1 - 15.0 du/ac	Medium-High Density Residential
Dwelling Units	376	Lots 1-240 & 455-590
BUILDING INTENSITY		
Minimum Lot Area	1,800 sq ft	
Minimum Lot Width	36'	
Minimum Lot Depth	50'	
Maximum Coverage	65%	
Maximum Height	35'	
Curved, Cul-de-sac or Corner Lot	36' min/50' min	For street frontage/For lot depth
BUILDING SETBACKS		**All setbacks measured from PL.**
Front Yard	5' min/4' min	To garage, living area/porch or projections
Side Yard	5' min/3' min	5' min garage side/3' min other side
Corner/Reversed Corner	3' min	
Rear Yard	4' min	
GARAGES/STREETS/PARKING		
Garages	1-car 2-car	10'x20' min 20'x20' min
Streets (Interior)	36' wide	Curb-to-curb
Parking	1.5 spaces/unit min	1 covered space per unit min
ACCESSORY USES		**General list of requirements and restrictions.**
Walls/Fences	6' min - 8' high max	8' tall walls require permits
Trellises	12' high max	
Pools and Spas	3' min	Water portion to rear and side PLs. Pool and spa may not be located in front yard.
Equipment	Pool, spa and fountain equipment allowed in side yard setback.	
Covered Structures Accessory Buildings	12' high max	Covered structures and building additions are allowed subject to review by HOA committee and permitting by the City of Clovis, provided that lot coverage standards are not exceeded and that a rear yard encroachment permit is obtained if encroachment into rear yard occurs.



NOTE: Construction of more than two of the same plan type in a row or more than three 2-car garage models in a row (excepting tandem garage units) shall be addressed through the Residential Site Plan Review process.

The imagery conveys samples of the architectural character intended for these neighborhoods.

NOT TO SCALE

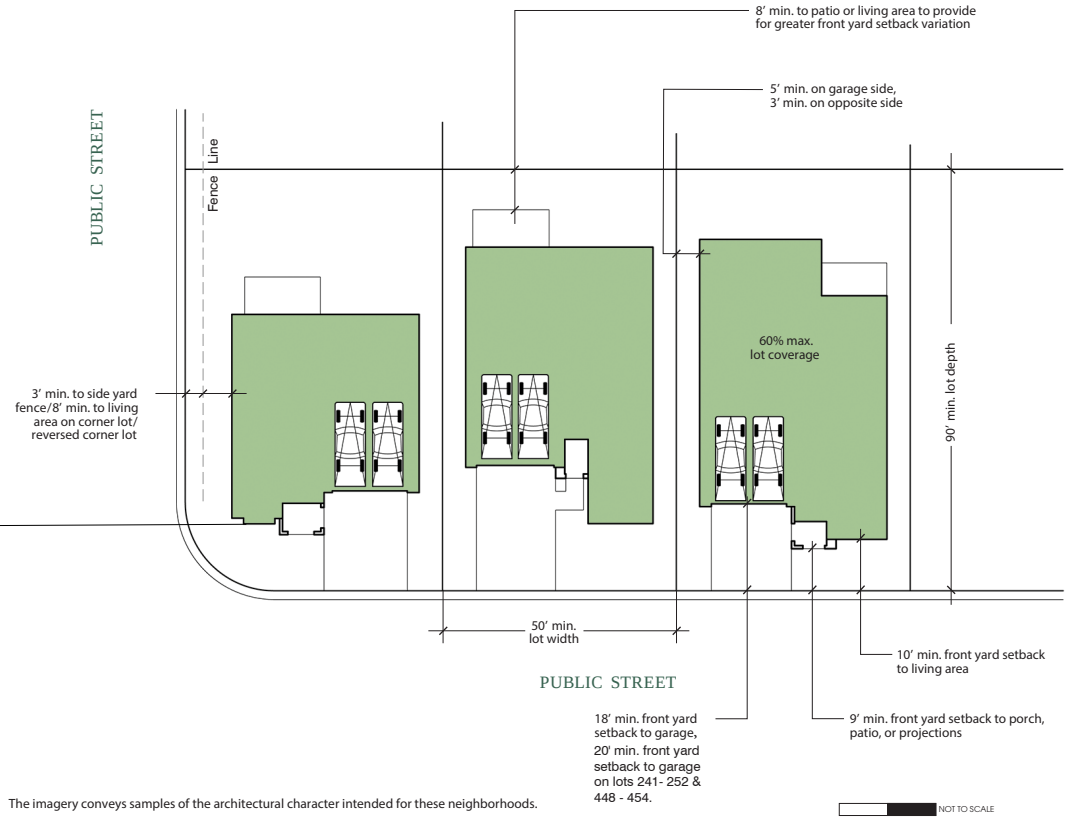
Attachment 7

TRACT 6343 - Regent Park

Residential Land Use Development Standards

TRACT 6343 – SOUTH SIDE OF BEHYMER EAST OF MINNEWAWA

LAND USE	DEVELOPMENT STANDARDS	
SINGLE-FAMILY RESIDENTIAL	**STANDARD**	**NOTES**
DESIGNATION		
Zone District	R-1-PRD	
GP Density Range	7.1 - 15.0 du/ac	Medium-High Density Residential
Dwelling Units		Lots @ 50' x 90' min.
	214	Lots 241-454
BUILDING INTENSITY		
Minimum Lot Area	4,500 sqft	
Minimum Lot Width	50'	
Minimum Lot Depth	90'	
Maximum Height	35'	
Curved/Cul-de-sac	25' min	For street frontage
Corner/ Reversed Corner	53' min	Lot width
Maximum Lot Coverage	60%	
BUILDING SETBACKS		**All setbacks measured from PL.**
Front Yard (Local)	18' min/10' min/9' min	To garage/To living area/To projections and/or porch/patio
	20' min.	To garage on Lots 241-252 & 448-454
Side Yard	5' min/3' min	5' min garage side/3' min opposite side
Corner/Reversed Corner	3' min/8' min	To side yard fence/To living area
Rear Yard	8' min	
GARAGES/STREETS/PARKING		
Garages	2-car	20'x20' min
	3-car	20'x20' min w/tandem 9'x15.5' min
Streets (Public)	50'/54' wide	
On-Street Parking	Yes	
ACCESSORY USES		**General list of requirements and restrictions.**
Walls/Fences	6' min - 8' high max	8' tall walls require permits
Trellises	12' high max	
Pools and Spas	5' min	Water portion to rear and side PLs. Pool and spa may not be located in front yard.
Equipment	Pool, spa and fountain equipment allowed in side yard easement.	
Covered Structures	12' high max	Covered structures and building additions are allowed subject to review by the City of Clovis, provided that lot coverage standards are not exceeded and that a rear yard encroachment permit is obtained if encroachment into rear yard occurs.
Accessory Buildings		



The imagery conveys samples of the architectural character intended for these neighborhoods.

TR 6343
CONCEPTUAL PLAN
WILSON HOMES

EXHIBIT L-1 Context Plan

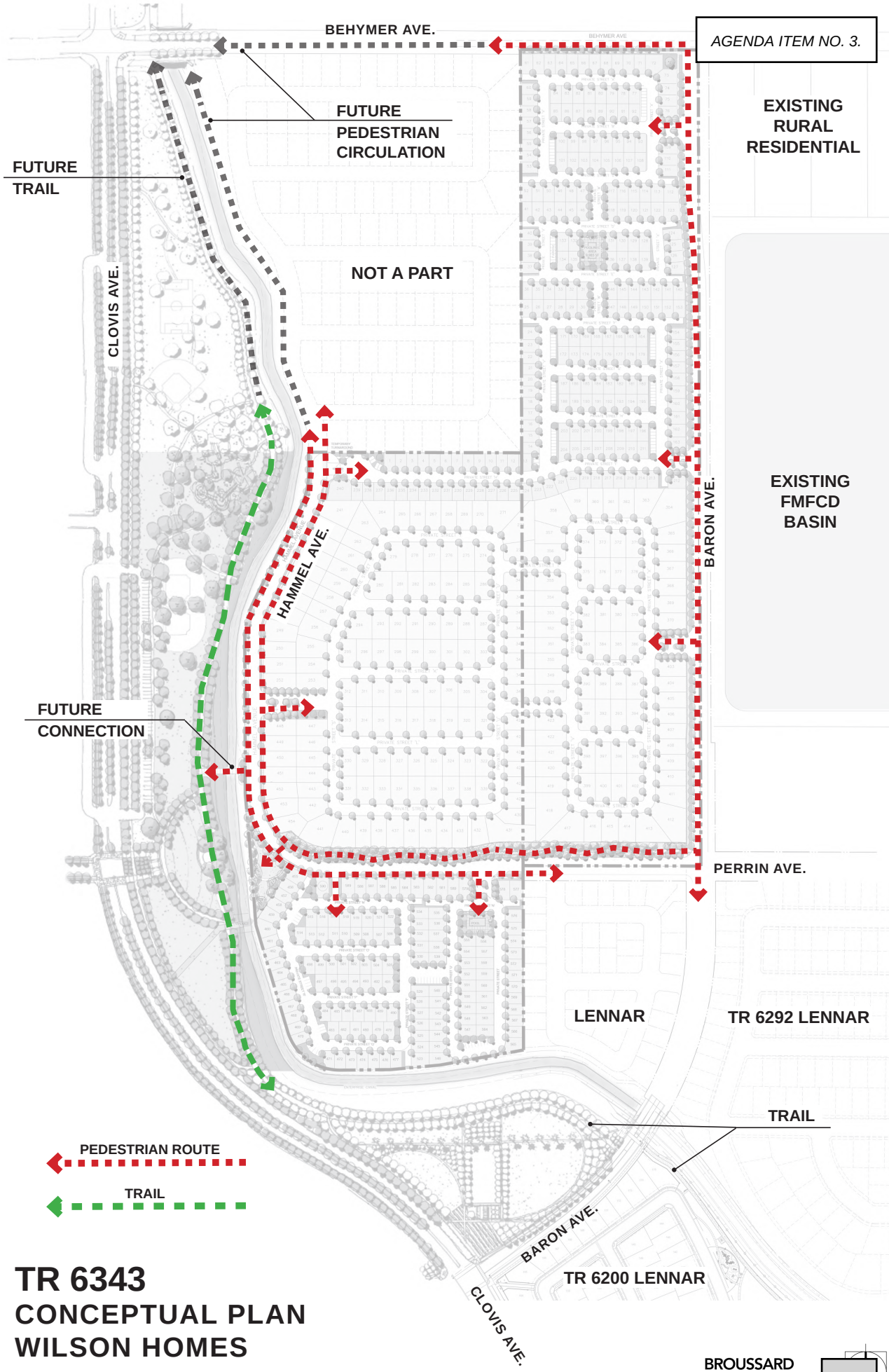
1-5-23

BROUSSARD ASSOCIATES landscape architects

190

NORTH

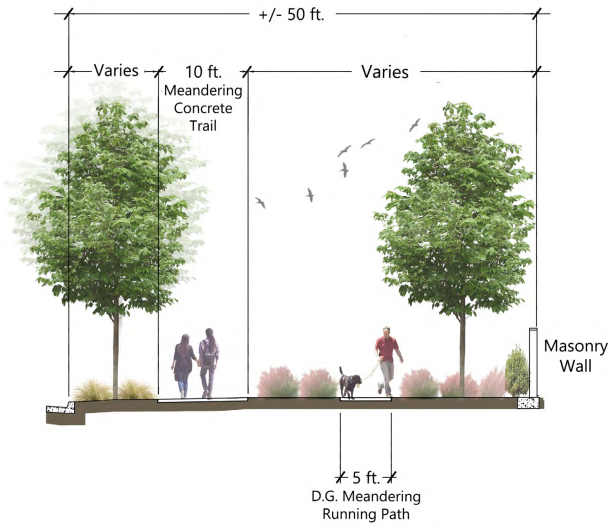
Attachment 8



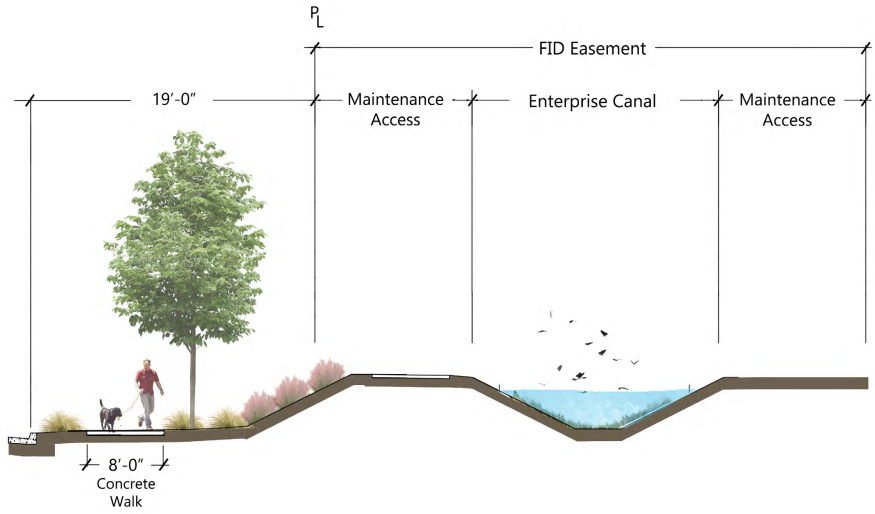
TR 6343
CONCEPTUAL PLAN
WILSON HOMES

EXHIBIT L-2 Pedestrian Circulation Plan

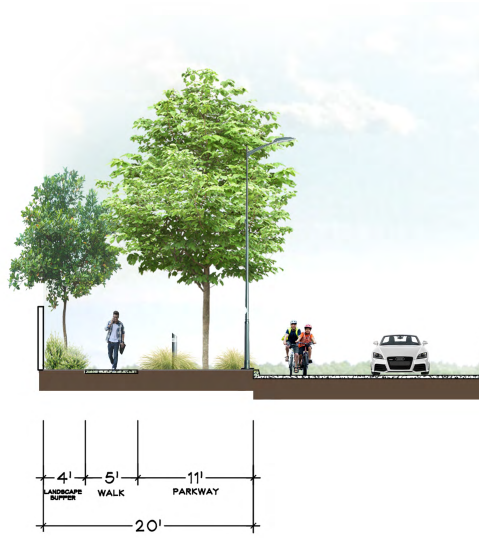
BROUSSARD ASSOCIATES landscape architects



SECTION A-A PERRIN AVE.



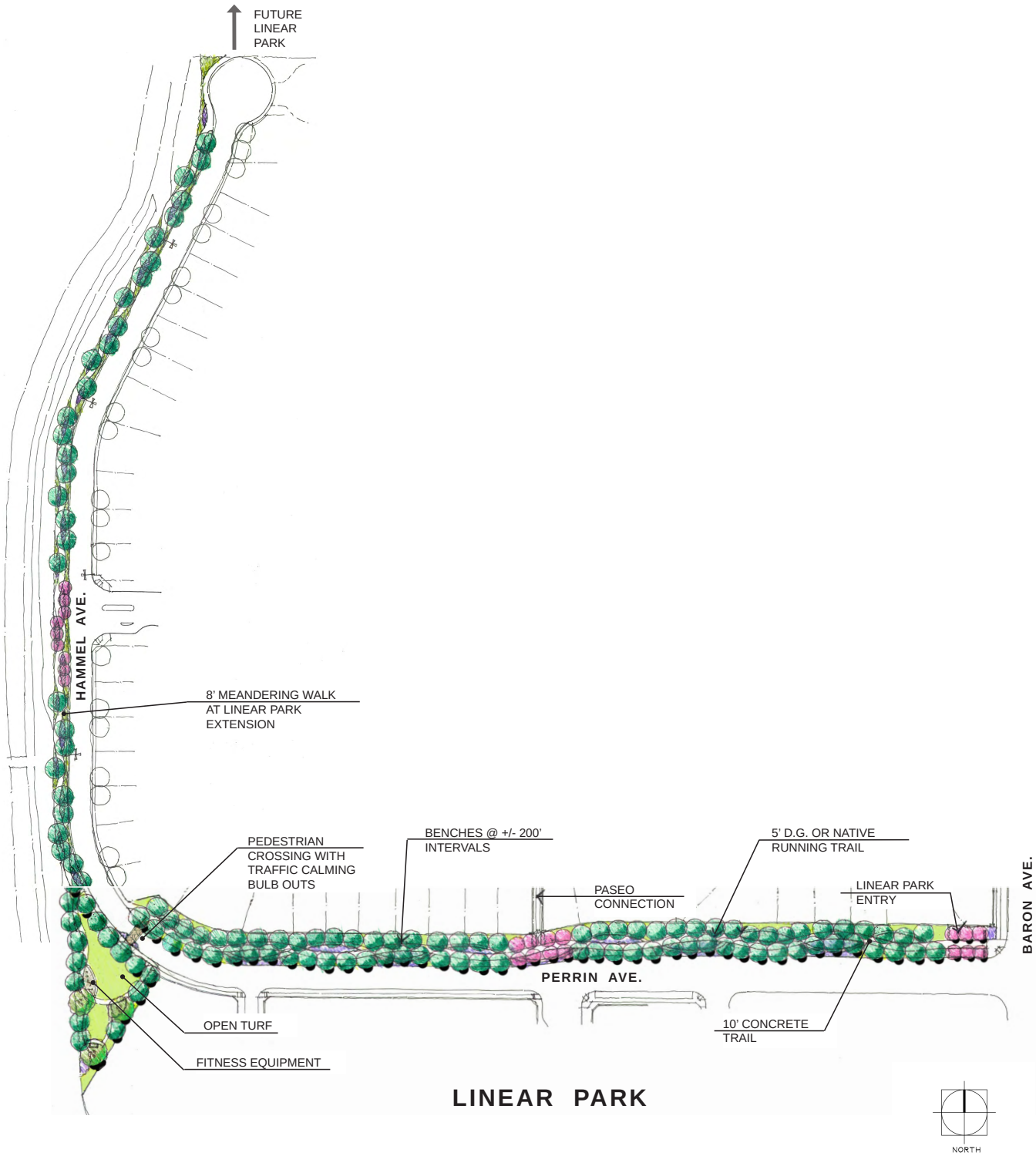
SECTION B-B HAMMEL AVE.



SECTION C-C BARON AVE.

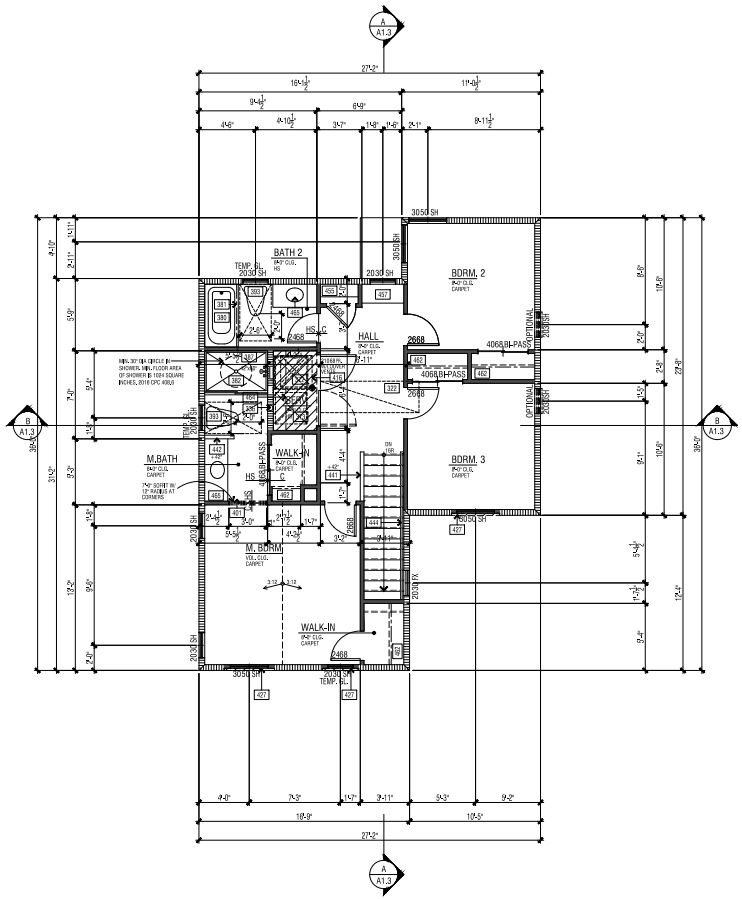
TR 6343
CONCEPTUAL PLAN
WILSON HOMES

EXHIBIT L-3 See Sheet L-1 for Section Locations

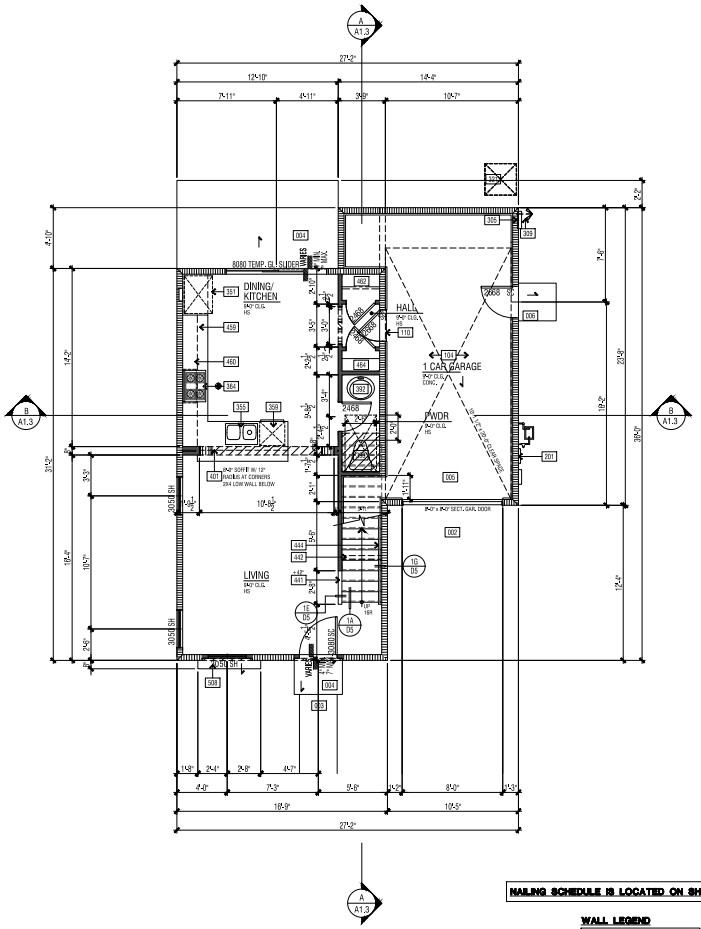


TR 6343
CONCEPTUAL PLAN
WILSON HOMES

EXHIBIT L-4 Linear Park and Trail



UPPER FLOOR PLAN



LOWER FLOOR PLAN

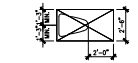
NAILING SCHEDULE IS LOCATED ON SHEET SD.2

WALL LEGEND

= 2 x 6 O.L.S. @ 2 AT 16" O.L.C.

= 2 x 4 O.L.S. @ 2 AT 16" O.L.C.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

Attachment 9

SCALE: 1/4" = 1'- 0"

FLOOR PLAN KEY NOTES

Name	NOTE
001	GALVANIZED STEEL PIPE BOLLARD W/ CONCRETE FILL (SEE DETAIL 15/DL1)
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE AND EXTENDED TO THE ROOF SHEATHING PER CRC SECTION R302.6.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE RBE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANK LESS WATER HEATER, INSTALLATION PER MANUFACTURERS INSTRUCTIONS
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
309	TEMPERATURE AND PRESSURE RELIEF VALVE: DISCHARGE LINE TO THE OUTSIDE PER CPC SECTION 608.5
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) IN ATTIC ON 8' X 12" PLATFORM
336	5" DIA. CLL DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
341	1'-0" MAKE-UP AIR VENT ABOVE DOOR (100 SQ IN MIN). UNDER-CUT THE DOOR 1 INCH
349	ELEC. IN RANGE/ OVEN AND MICRO WITH VENT LIGHT COMBINATION
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
353	DW WITH GARBAGE DISPOSER
359	DISHWASHER
364	COOKTOP & EXHAUST HOOD WITH FAN LIGHT (EXHAUST VENT TO OUTSIDE)
372	WASHER SPACE WITH RECESSED WATER BOX AND DRAIN
373	DRYER SPACE
374	SHELF ABOVE - DPT. CABINETS (SEE INTERIOR ELEV.)
380	TUB/ SHOWER
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR (MIN. 22" WIDTH)/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - 60"X42"
387	SHOWER - HOT MOP - SEE PER PLAN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 24"x30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S). HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.2(e)1, ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING HEIGHT PER PLAN
422	STUCCO SOFFIT HEIGHT PER PLAN
427	STUCCO SOFFIT OVER WATERPROOFED STUCCO SHELF - SLOPE FRAMING FOR DRAINAGE (1/4" PER FOOT MINIMUM)
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	GYP. BD. POST - SIDE & HEIGHT PER PLAN
443	2X CRIPPLE WALL - SIZE PER PLAN
444	+36" - +38" HANDRAIL (SEE DETAIL 10/D5)
455	LINEN
457	LINEN (LOW CNTR)
458	LINEN (UPPER CNTR)
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
463	DOUBLE SHELF & POLE
464	WIRE SHELF/SHELVES
465	VANITY
508	WATERPROOF STUCCO SHELF - SLOPE 1/4" PER FOOT

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. CRAWL SPACES: ACCESS PER CRC R408.4 AND VENTILATION PER R408.1.
3. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R202 & R310. MEANS OF EGRESS PER CRC 311.
4. GLAZING PER CRC R303.1, R301.2.1.2 & R308.
5. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 AND A.G.M.D. RULE 445.
6. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
7. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 506.2.
8. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
9. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305.
10. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.
11. THE SILL HEIGHT IS NOT TO EXCEED 44" FROM THE BOTTOM OF THE CLEAR OPENING IN SLEEPING ROOMS, CRC R310.1
12. IN UPPER FLOOR PLANS, ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE RIGID GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. CRC R312.2
13. A SHEETROCK NAILING INSPECTION IN REQUIRED. CRC R109.1.4.2
14. GLAZING IN A HAZARDOUS LOCATION IS REQUIRED TO BE GLAZED WITH SAFETY MATERIAL. CRC R308
15. PROVIDE A 6" SQUARE FRESH AIR INTAKE FOR THE GAS APPLIANCE FIREPLACE 2019 T-24
16. VERTICAL CLEARANCE ABOVE THE COOKTOP TO COMBUSTIBLES IS 30" UNPROTECTED, OR 24" PROTECTED, AND THE HORIZONTAL DIMENSIONS IS REQUIRED TO BE PER THE PERMANENT MARKING LISTED ON THE UNIT. CMC 916.1 & 916.2
17. THE WALL SURFACE BEHIND CERAMIC TILE OR OTHER RINSH WALL MATERIALS SUBJECT TO WATER SPLASH ARE CONSTRUCTED OF MATERIALS NOT ADVERSELY AFFECTED BY WATER, NOTE THE USE OF FIBER CEMENT, FIBER MAT, REINFORCED CEMENT OR GLASS MAT GYPSUM BACKERS ON THE FLOOR PLAN. NOTE THAT WATER RESISTANT GYPSUM BOARD IS NO LONGER PERMITTED TO BE USED IN THESE LOCATIONS. CRC R702.4.2
18. THE THREE CAR GARAGE IS NON-CONFORMING AND THE REQUIRED SIDEYARD SETBACKS MAY NOT BE RELAXED. CRC R106.1.1
19. NOTE THAT ALL ATTIC ACCESS OPENINGS ARE GASKETED TO PREVENT AIR LOSS. CEC 150.0(a)
20. A MINIMUM 30" DIA. CIRCLE IS PROVIDED AT THE SHOWER FLOOR. THE MINIMUM FLOOR AREA OF THE SHOWER COMPARTMENT IS 1024 SQUARE INCHES. CPC 408.6

SPN #	.
FLOOR AREA TABLE	PLAN 1212A
LOWER FLOOR PLAN	495 SQ. FT.
UPPER FLOOR PLAN	732 SQ. FT.
TOTAL	1227 SQ. FT.
GARAGE	292 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

No. C 12020

REN 4-30-21

STATE OF CALIFORNIA

WILSON HOMES

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

NEW ELEV8IONS- PLAN 1212

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT THAT ANY CHANGES OR MODIFICATIONS ARE MADE BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

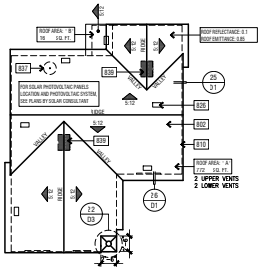
PLAN 1212
LOWER & UPPER
FLOOR PLANS

PROJECT MANAGER :	CC
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	2018077.07
CAD FILE NAME :	
DATE:	06-18-20

194

A1.1

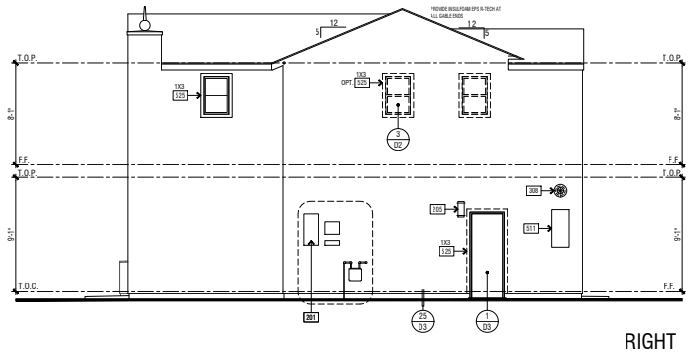
2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



ATTIC VENTILATION CALCULATIONS						PLAN 2A
ROOF ATTIC AREA	A	772	SQ. FT	CALCULATION FACTOR:		1/300
		111168	SQ. IN			
MIN. VENTILATION REQUIRED:	TOTAL	366	SQ. IN	TOTAL PROVIDED:	392	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	183	SQ. IN	TOTAL HIGH PROVI	196	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	183	SQ. IN	TOTAL LOW PROVI	196	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	2	196	SQ. IN
				TOTAL PROVIDED:	196	SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	2	196	SQ. IN
				TOTAL PROVIDED:	196	SQ. IN



RIGHT

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
508	WATERPROOF STUCCO SHELF - SLOPE 1/4" PER FOOT
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
516	DECORATIVE FOAM ACCENT - SEE DETAIL 22/D3 - ICC ESR 1586
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R-6) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT 'R' GUARD ESR-1586 BY 'START 'R FOAM'
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
602	WOOD TRIM(S) - SIZE PER ELEVATION
603B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL EXPOSURE 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) **U.V.I. 4.3's 7-0.1K-405**
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
702	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF 0F GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.02

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH					
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE	
CONCRETE ' S ' TILE *EAGLE ROOFING' ICC# ESR-1900	1/D1	2X6	NONE	1'-0"	TIGHT	

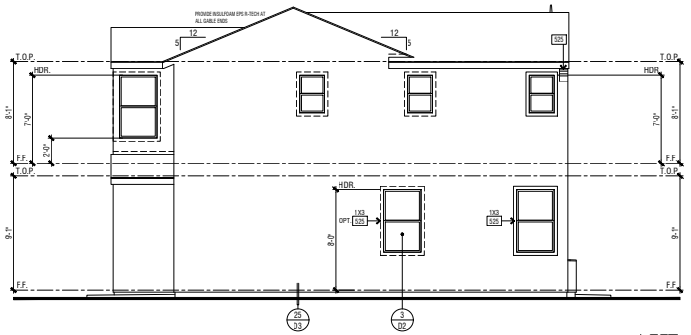
ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

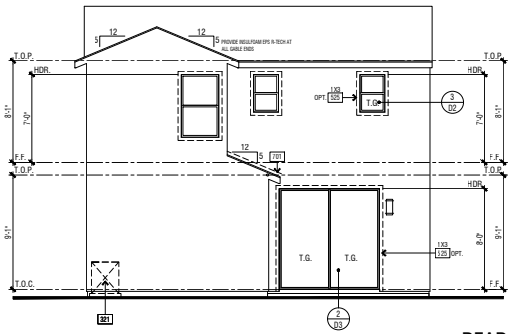
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

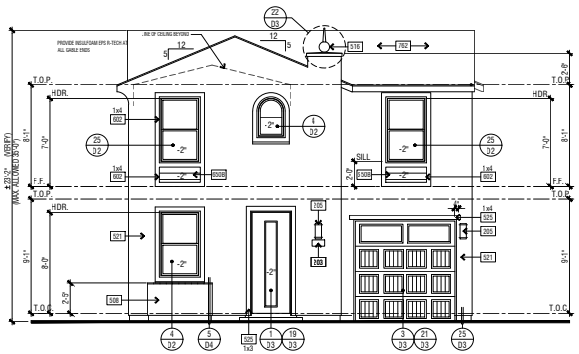
Name	NOTE
802	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
826	ROOF VENT - CHARGIN "XL SERIES" CLOAKED VENT (ICC # NER-9855A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR PV SOLAR INSTALLATION.
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

No. C 12930 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS- PLAN 1212

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

© 2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1212A EXTERIOR ELEVATIONS & ROOF PLAN

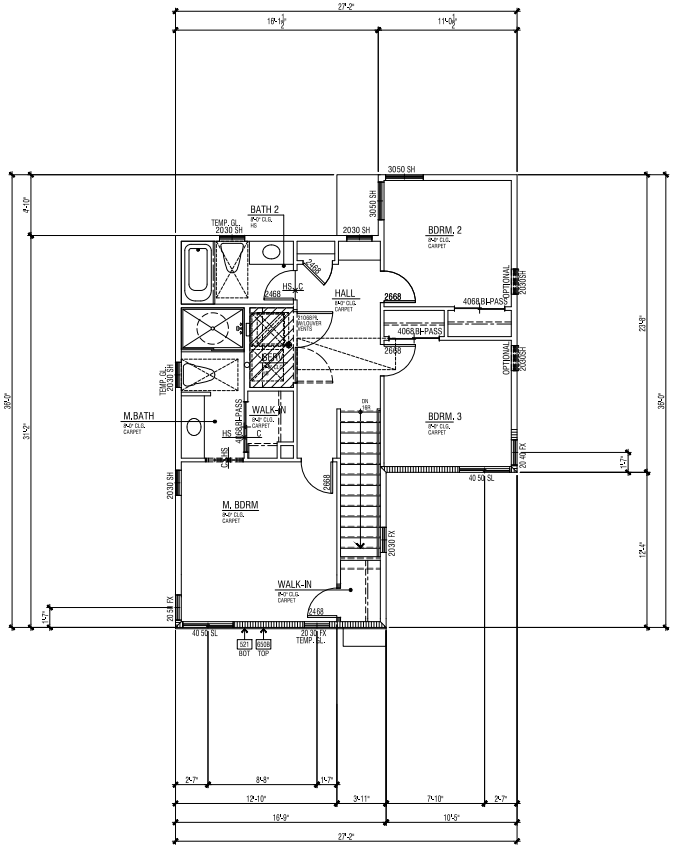
PROJECT MANAGER :	CC
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	2018077.07
CAD FILE NAME :	

DATE: 06-18-20

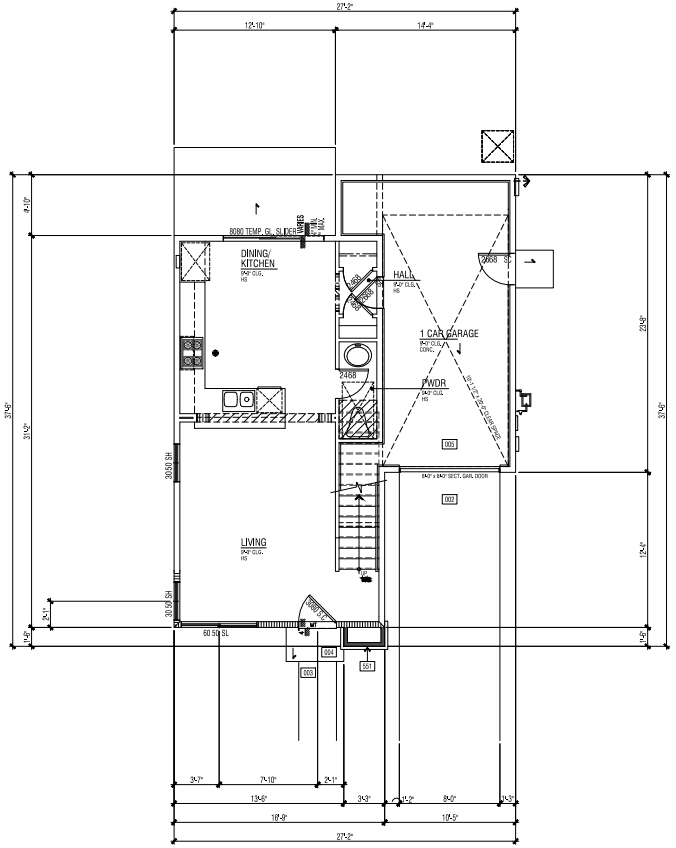
195

A1.4

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SPAT "X" GUARD ESR-1566 BY "START R FOAM".
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS" BY EL DORADO STONE PRODUCTS - TERM 1315-31
6508	FIBER CEMENT LAP SIDING - 5"/6" THICK "HARDIPLANK" OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES "NER-405

ADDENDA FLOOR PLAN NOTES

NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1212B
LOWER FLOOR PLAN	495 SQ. FT.
UPPER FLOOR PLAN	732 SQ. FT.
TOTAL	1227 SQ. FT.
GARAGE	292 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS- PLAN 1212

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR ASSIGNMENT BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

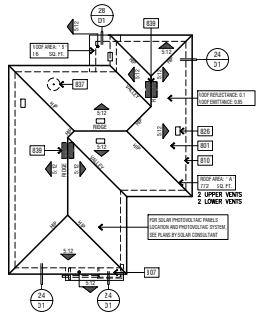
REVISIONS

NO.	DATE	DESCRIPTION

ADDENDA FLOOR
PLANS 1212B

PROJECT MANAGER :	CC
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	196
CAD FILE NAME :	
DATE:	06-18-20
	A1.5

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



ATTIC VENTILATION CALCULATIONS						PLAN	2B
ROOF ATTIC AREA	A	772	SQ. FT		CALCULATION FACTOR:		1/300
		111168	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	366	SQ. IN		TOTAL PROVIDED:	396	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	183	SQ. IN		TOTAL HIGH PROVI	198	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	183	SQ. IN		TOTAL LOW PROVI	198	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - COVC. FLAT TILE -		99	SQ. IN X	2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - COVC. FLAT TILE -		99	SQ. IN X	2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

ROOF ATTIC AREA	B	16	SQ. FT		CALCULATION FACTOR:		1/150
		2304	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	15	SQ. IN		TOTAL PROVIDED:	99	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - COVC. FLAT TILE -		99	SQ. IN X	1		99 SQ. IN
				TOTAL PROVIDED:		99 SQ. IN

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B ELEVATION STYLE: MODERN

ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	3 ARGE - 2 N.O.	OVERHANG DIM. - U.N.O. SIDE	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING* ICC# ESR-1900	1 D1	2x6	2x6	1'-6" U.N.O.	1'-0"

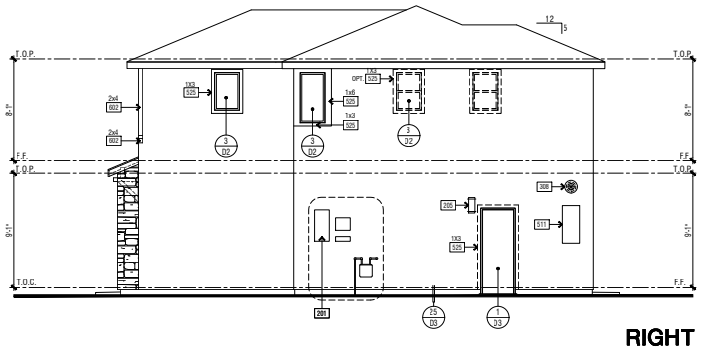
ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER 2 RC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER 2 RC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
5. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC)
6. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
7. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

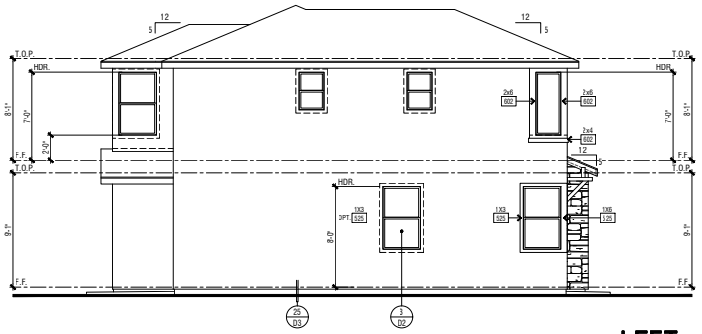
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE. AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL,PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

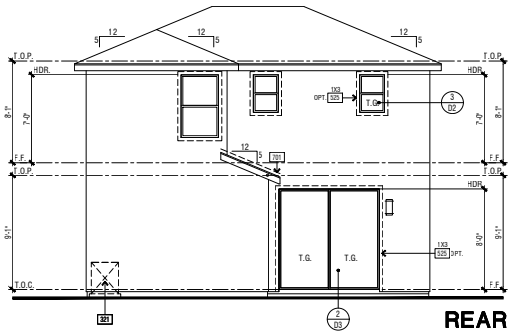
Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900
807	ROOFING - METAL BY CUSTOM BILT METALS - ASTM A792
810	LINE OF WALL BELOW
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS



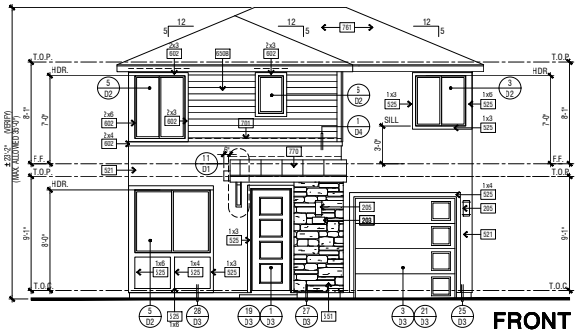
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (PA) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRA1 'R' GUARD ESR-1566 BY 'START R FOAM'.
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY 'EL DORADO STONE' ICC-ES ER-3568
602	WOOD TRIM(S) - SIZE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) ICC-ES NER-405
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900
770	ROOFING - METAL BY CUSTOM BILT METALS - ASTM A792

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF GF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.63

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12930 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS- PLAN 1212

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

© 2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

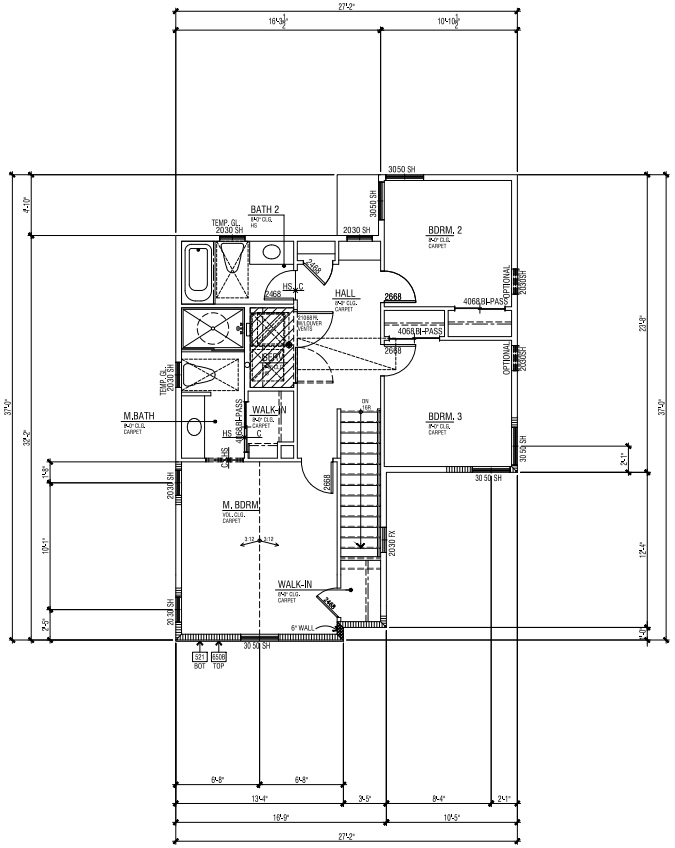
REVISIONS

NO.	DATE	DESCRIPTION

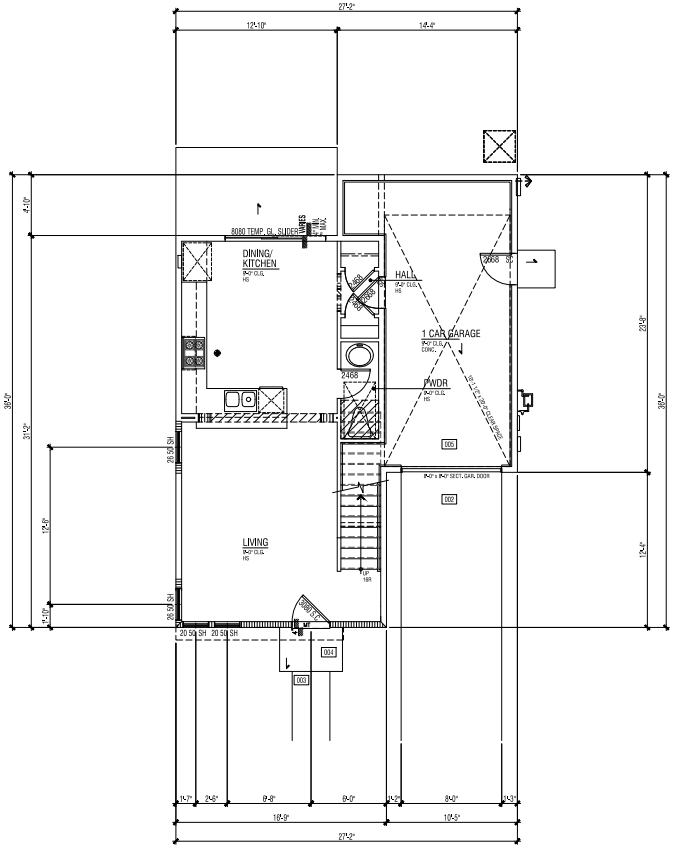
PLAN 1212B
EXTERIOR ELEVATIONS
& ROOF PLAN

PROJECT MANAGER :	CC
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	197
CAD FILE NAME :	
DATE:	06-18-20
	A1.6

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH (SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT 'R' GUARD ESR-1566 BY STARR III FOAM.
6668	FIBER CEMENT LAP SIDING - 5/16" THICK HARDIPLANK OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES NER-405

ADDENDA FLOOR PLAN NOTES
NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN
NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.
REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1212C
LOWER FLOOR PLAN	495 SQ. FT.
UPPER FLOOR PLAN	745 SQ. FT.
TOTAL	1240 SQ. FT.
GARAGE	292 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA
ORANGE COUNTY . LOS ANGELES . BAY AREA

LICENSED ARCHITECT
No. C 12920
REN 4-30-21
STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS- PLAN 1212

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

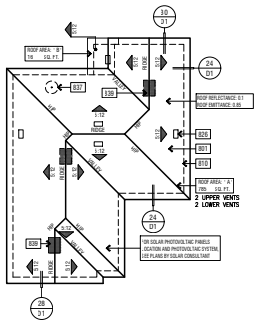
REVISIONS

NO.	DATE	DESCRIPTION

ADDENDA
FLOOR PLAN
1212C

PROJECT MANAGER :	CC
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	198
CAD FILE NAME :	
DATE:	06-18-20
	A1.7

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



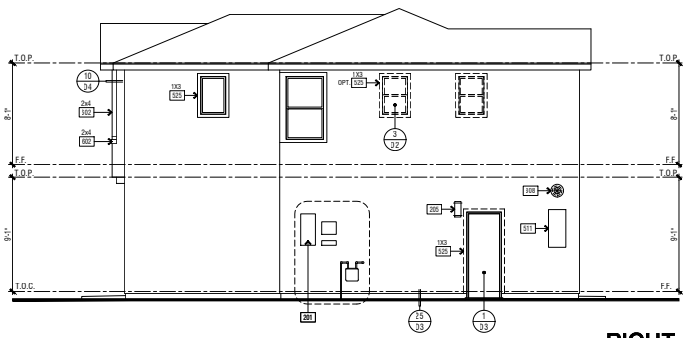
ATTIC VENTILATION CALCULATIONS						PLAN 2C
ROOF ATTIC AREA	A	785	SQ. FT.	CALCULATION FACTOR:		1/300
		113040	SQ. IN			
MIN. VENTILATION REQUIRED:	TOTAL	374	SQ. IN	TOTAL PROVIDED:	396	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	187	SQ. IN	TOTAL HIGH PROVI	198	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	187	SQ. IN	TOTAL LOW PROVI	198	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	2	198 SQ. IN
				TOTAL PROVIDED:	198 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	2	198 SQ. IN
				TOTAL PROVIDED:	198 SQ. IN

ROOF ATTIC AREA	B	16	SQ. FT.	CALCULATION FACTOR:	1/150
		2304	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	15	SQ. IN	TOTAL PROVIDED:	99 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN X	1	99 SQ. IN
				TOTAL PROVIDED:	99 SQ. IN



RIGHT

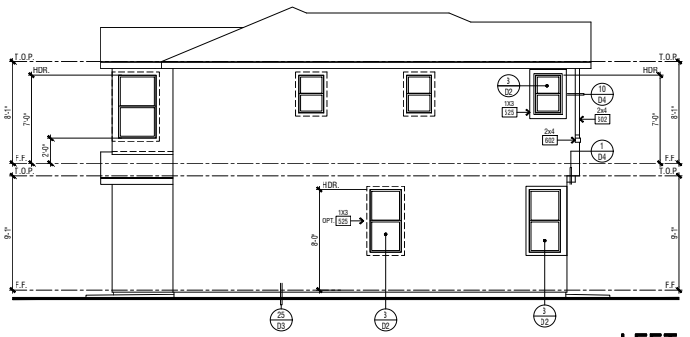
FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO MOHC - SIZE PER ELEVATION - SLOPE SILL 2" PER FT. MINIMUM
121	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 1.1 PORTLAND CEMENT OVER SRAT 'R' GUARD ESR-1566 BY START R FOAM'.
125	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
192	OVERHEAD AWNING - SIZE AND STYLE PER ELEVATION
502	WOOD TRIM(S) - SIZE PER ELEVATION
1308	FIBER CEMENT LAP SIDING - 5"/8" THICK 'HARDIPLANK' (ER EQUIVALENT, FINISH: SELECT CEDARMILL. EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) **ICC-ES NER-405**
701	G.I. FLASHING
781	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF OF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING 2019 CRC R703.63



LEFT

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	RAKE - U.N.O.	OVERHANG DIM. - U.N.O.	
				EAVE	RAKE
CONCRETE 'FLAT' TILE 'EAGLE ROOFING' ICC# ESR-1900	1 /311	2X6	2X6	1'-0"	1'-0"

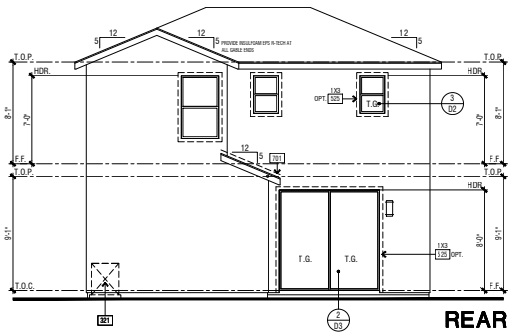
ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER 2RC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER 2RC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
5. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC)
6. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
7. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

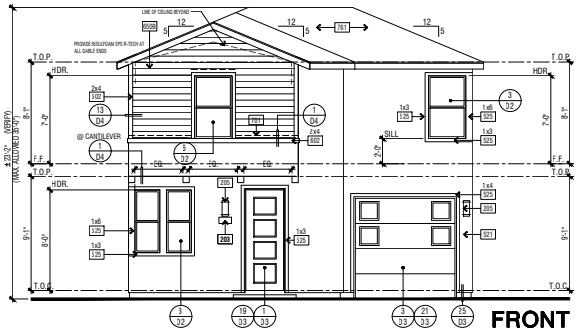
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL, PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS



REAR



FRONT

SCALE: 1/4" = 1'-0"

WHA.
ARCHITECTS . PLANNERS . DESIGNERS
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12930 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS- PLAN 1212

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

© 2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

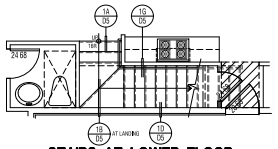
REVISIONS

NO.	DATE	DESCRIPTION

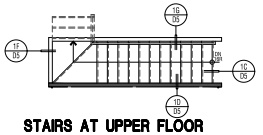
PLAN 1212C EXTERIOR ELEVATIONS & ROOF PLAN

PROJECT MANAGER :	JC
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	199
CAD FILE NAME :	
DATE:	06-18-20
	A1.8

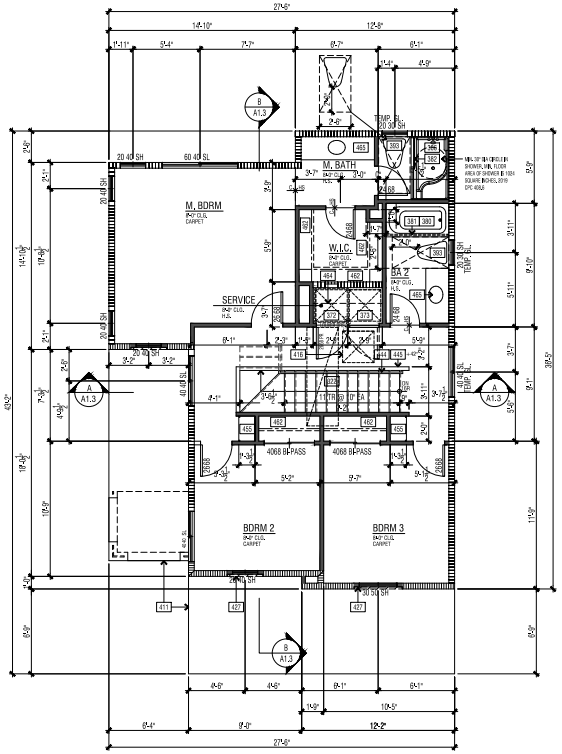
2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



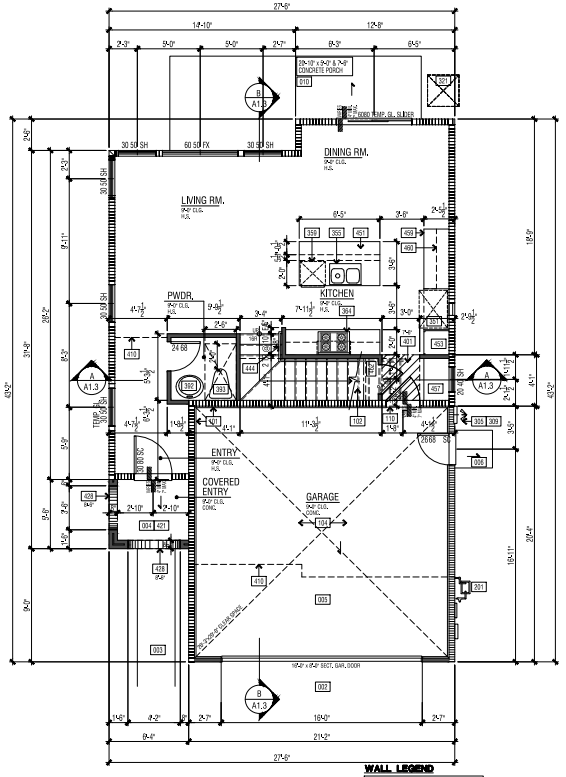
STAIRS AT LOWER FLOOR



STAIRS AT UPPER FLOOR



UPPER FLOOR PLAN



LOWER FLOOR PLAN

WALL LEGEND

= 2 x 6 O.C. @ 2 AT 19" O.C.

= 2 x 4 O.C. @ 2 AT 19" O.C.

NAILING SCHEDULE IS LOCATED ON SHEET SD.2

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL

INTERIOR ELEVATION KEY

SPN #	.
FLOOR AREA TABLE	PLAN 1390A
LOWER FLOOR	630 SQ. FT.
UPPER FLOOR	791 SQ. FT.
TOTAL	1422 SQ. FT.
GARAGE	428 SQ. FT.
COVERED ENTRY	35 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

FLOOR PLAN KEY NOTES

Name	NOTE
001	CONCRETE SLAB (SEE STRUCTURAL DRAWINGS)
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
010	CONCRETE PATIO (BY OTHERS)
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE AND EXTENDED TO THE ROOF SHEATHING PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE R.L.C.LG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE RME RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (NTS/LG) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY HEATILATOR MODEL # NO4642 ANSI Z21.88-2002
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSTALLATION
334	4" DIA. GLI DRYER VENT WITH APPROVED LINT TRAP - VENT TO OUTSIDE
336	5" DIA. GLI DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
342	RETURN AIR GRILL - SEE MECHANICAL
344	WHOLE HOUSE EXHAUST FAN PER 2019 CEC. . REFER TO ATTACHED "SUMMARY OF THE 2019 ENERGY CODE ASHRAE 62.2 REQUIREMENTS"
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
357	UTILITY SINK
359	DISHWASHER - ENERGY STAR
364	COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT (EXHAUST VENT TO OUTSIDE). THE VERTICAL CLEARANCE ABOVE THE COOKTOP TO COMBUSTIBLE IS 30" UNPROTECTED, OR 24" PROTECTED, AND THE HORIZONTAL DIMENSION IS REQUIRED TO BE PER THE MARKING LISTED ON THE UNIT. 2019 CMC 921.3.2 & 921.4.3
372	WASHER SPACE WITH RECESSED WATER BOX AND DRI-, WIRE SMITTY PAN
373	DRYER SPACE
380	TUB/ SHOWER - 32"X60" MODEL 2660DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR (MIN. 22" WIDTH)/ ENCLOSURE
383	TUB ACCESS PANEL
386	SHOWER - PREFABRICATED STALL - 36"X60"X76" MODEL 1600STS - GELCOAT SURFACE - BY AQUATIC. (MIN. 1,024 S.I. FLOOR AREA)
390	SHOWER SEAT - SLOPE 1/4" MINIMUM TO DRAIN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 30" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
412	OPEN TO ABOVE
413	OPEN TO BELOW
416	30"x22" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.0(q)1. ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE PER CENC 150.0(A)2
417	22"X30" 1-HOUR ATTIC ACCESS - DIMENSIONS CLEAR
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
427	STUCCO SOFFIT OVER WATERPROOFED STUCCO SHELF - SLOPE FRAMING FOR DRAINAGE (1/4" PER FOOT MINIMUM)
428	ARCHED STUCCO SOFFIT - HEIGHT PER ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X POW WALL - SEE PER PLAN
444	+34" - +38" HANDRAIL (SEE DETAIL 15/D5)
445	+42" GUARD (SEE DETAIL 16/D5)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
454	DESK
455	LINEN
456	LINEN (UPPER & LOWER)
457	LINEN (LOW ONLY)
458	WIRE SHELF
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. CRAWL SPACES: ACCESS PER CRC R408.4 AND VENTILATION PER R408.1.
3. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R202 & R310. MEANS OF EGRESS PER CRC 311.
4. GLAZING PER CRC R308.1, R301.2.1.2 & R308.
5. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 AND 0.4,UNLO, RULE 445.
6. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
7. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 506.3.
8. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
9. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305.
10. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.
11. THE SILL HEIGHT IS NOT TO EXCEED 44" FROM THE BOTTOM OF THE CLEAR OPENING IN SLEEPING ROOMS. CRC R31 J0.1
12. IN UPPER FLOOR PLANS, ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH, CRC R312.2
13. A SHEETROCK NAILING INSPECTION IN REQUIRED. CRC R109.1.4.2
14. GLAZING IN A HAZARDOUS LOCATION IS REQUIRED TO BE GLAZED WITH SAFETY MATERIAL. CRC R308
15. PROVIDE A 9" SQUARE FRESH AIR INTAKE FOR THE GAS APPLIANCE FIREPLACE 2019 T-24
16. VERTICAL CLEARANCE ABOVE THE COOKTOP TO COMBUSTIBLES IS 30" UNPROTECTED, OR 24" PROTECTED, AND THE HORIZONTAL DIMENSIONS IS REQUIRED TO BE PER THE PERMANENT MARKING LISTED ON THE UNIT. CMC 916.1 & 916.2
17. THE WALL SURFACE BEHIND CERAMIC TILE OR OTHER FINISH WALL MATERIALS SUBJECT TO WATER SPLASH ARE CONSTRUCTED OF MATERIALS NOT ADVERSELY AFFECTED BY WATER, NOTE THE USE OF FIBER CEMENT, FIBER MAT, REINFORCED CEMENT OR GLASS MAT GYPSUM BACKERS ON THE FLOOR PLAN, NOTE THAT WATER RESISTANT GYPSUM BOARD IS NO LONGER PERMITTED TO BE USED IN THESE LOCATIONS. CRC R702.4.2
18. THE THREE CAR GARAGE IS NON-CONFORMING AND THE REQUIRED SIDEYARD SETBACKS MAY NOT BE RELAXED. CRC R106.1.1
19. NOTE THAT ALL ATTIC ACCESS OPENINGS ARE BASKETED TO PREVENT AIR LOSS. CEC 150.2(a)
20. A MINIMUM 30" DIA. CIRCLE IS PROVIDED AT THE SHOWER FLOOR. THE MINIMUM FLOOR AREA OF THE SHOWER COMPARTMENT IS 1024 SQUARE INCHES. CPC 408.6

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1390

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

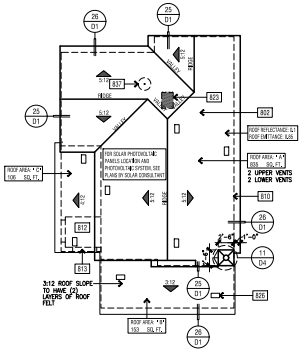
REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1390A
FLOOR PLANS

PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER:	200
CAD FILE NAME :	
DATE:	06-18-20
	A1.1

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	A	ELEVATION STYLE:	CONTEMPORARY SPANISH			
ROOF MATERIAL	STANDARD ROOF DETAIL (LA.C.)	FASCIA - (U.N.O.)	RAKE - (U.N.O.)	OVERHANG DIM. - (U.N.O.) EAVE	RAKE
CONCRETE 'S' TILE 'EAGLE ROOFING' ICC# ESR-1900	1 / D1	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806 PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE, EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET.
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER, FOR ROOF SLOPES FROM 2 ½ :12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.2.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL, PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2-1

ROOF PLAN KEY NOTES

Name	NOTE
802	ROOFING - CONCRETE - LOW PROFILE 'S' TILE BY EAGLE ROOFING ICC# ESR-1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - O'HAGIN "XL SERIES" CLOSED VENT (ICC # NER-660A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ATTIC VENTILATION CALCULATIONS

PLAN 1390A

ROOF ATTIC AREA	A	835 SQ. FT. / 120240 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	390 SQ. IN	TOTAL PROVIDED:	392 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	195 SQ. IN	TOTAL HIGH PROVI	196 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	195 SQ. IN	TOTAL LOW PROVI	196 SQ. IN		

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	2	196 SQ. IN
				TOTAL PROVIDED:	196 SQ. IN

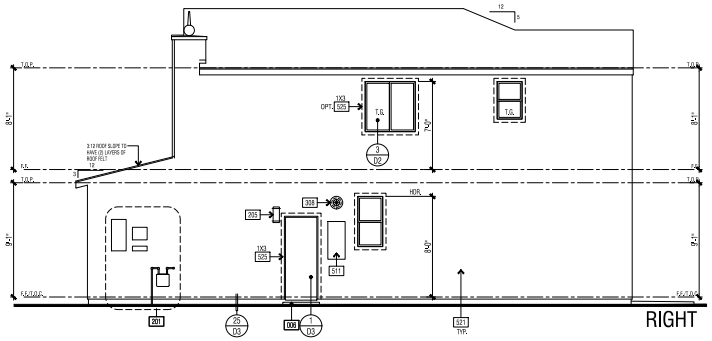
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	2	196 SQ. IN
				TOTAL PROVIDED:	196 SQ. IN

ROOF ATTIC AREA	B	153 SQ. FT. / 22032 SQ. IN	CALCULATION FACTOR:	1/150
MIN. VENTILATION REQUIRED:	TOTAL	147 SQ. IN	TOTAL PROVIDED:	196 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.'S' TILE	-	98	SQ. IN X	2	196 SQ. IN
				TOTAL PROVIDED:	196 SQ. IN

ROOF ATTIC AREA	C	106 SQ. FT. / 15264 SQ. IN	CALCULATION FACTOR:	1/150
MIN. VENTILATION REQUIRED:	TOTAL	102 SQ. IN	TOTAL PROVIDED:	196 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.'S' TILE	-	98	SQ. IN X	2	196 SQ. IN
				TOTAL PROVIDED:	196 SQ. IN



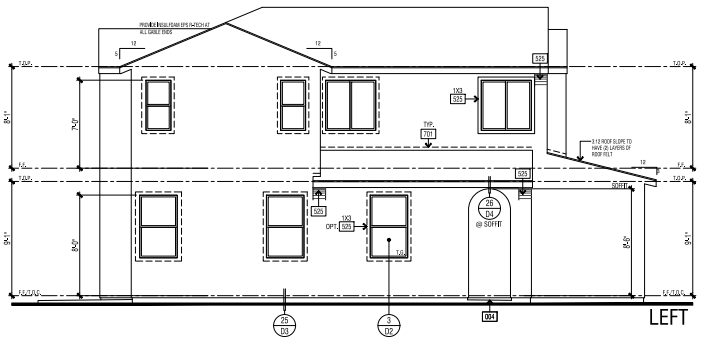
ELEVATION KEY NOTES

Name	NOTE
004	CONCRETE PORCH SLAB (BY OTHERS). SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" HIGHER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
010	CONCRETE PATIO (BY OTHERS)
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AMB. VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
516	DECORATIVE FOAM ACCENT - SEE DETAIL 22/D3 - ICC ESR- 1566
521	STUCCO - "DANSK GRAYDIST WALL ONE COAT STUCCO (PA) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT "F" GUARD ESR-1566 BY "START R FOAM"
525	STUCCO OVER HIGH FOAM TRIM - FOAM SHAPE PER ELEVATION
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
762	ROOFING - CONCRETE - LOW PROFILE "S" TILE BY EAGLE ROOFING ICC# ESR 1900

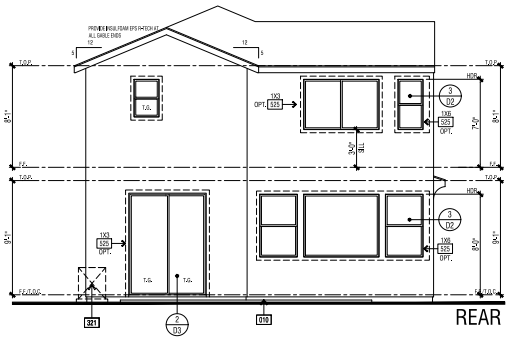
ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

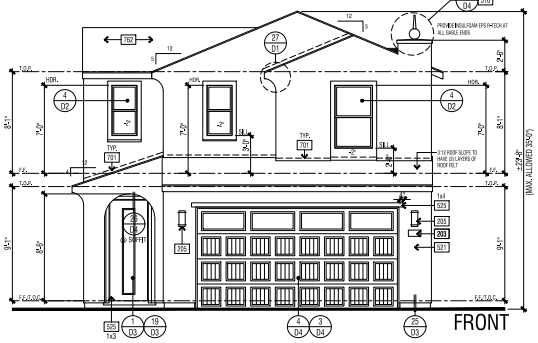
NOTE: 2 LAYERS OF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.03

FINISHED GRADE VARIES, SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.



NEW ELEV8IONS PLAN
1930 (P4)
REVISED LEFT ELEV 'A'





SCALE: 1/4" = 1'-0"

ARCHITECTURE · PLANNING · INTERIORS
WHA.
ORANGE COUNTY · LOS ANGELES · BAY AREA

REGISTERED ARCHITECT
No. C 12920
REN 4-30-21
STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1390

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT THAT CHANGES ARE MADE TO THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

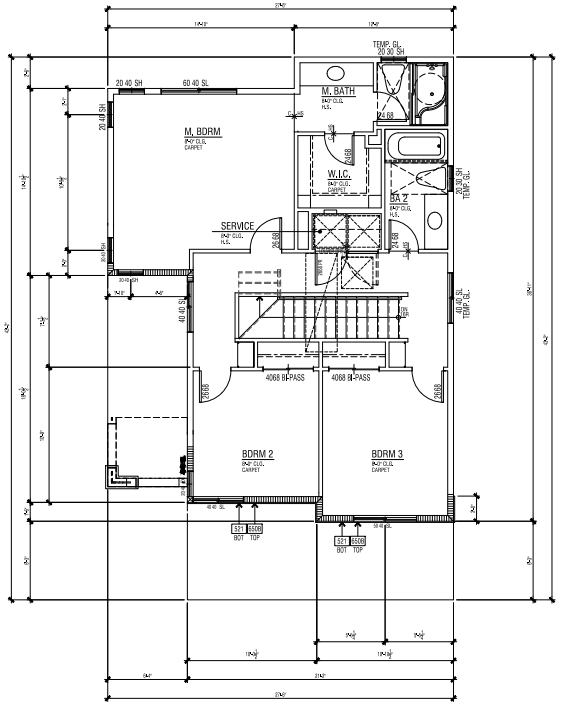
REVISIONS

NO.	DATE	DESCRIPTION

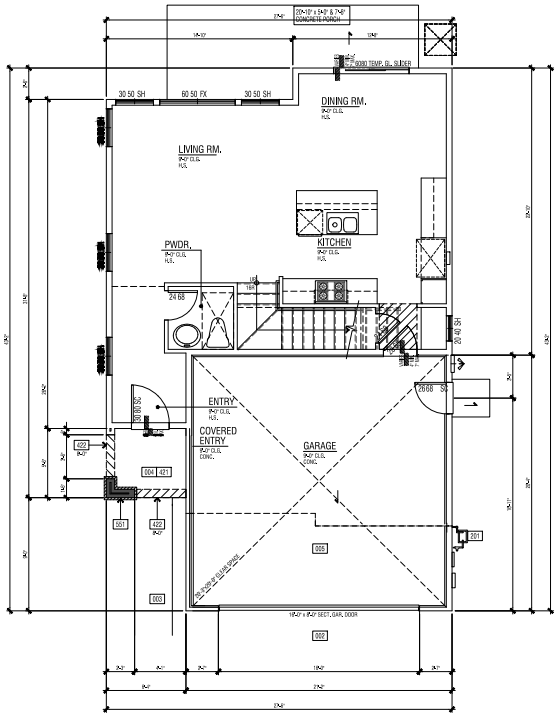
PLAN 1390A
EXTERIOR ELEVATIONS
& ROOF PLAN

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	201
CAD FILE NAME:	
DATE:	06-18-20
	A1.4

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 2% PER FOOT MINIMUM IN DIRECTION INDICATED
421	STUCCO CEILING HEIGHT PER PLAN
422	STUCCO SOFFIT HEIGHT PER PLAN
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE: I OR 11 PORTLAND CEMENT OVER GRAT ❖ GUARD ESR-1566 BY START R FOAM.
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS. BY 'EL DORADO STONE'ECS-45 ER-5068
6508	FIBER CEMENT LAP SIDING - 5/16" THICK HARDIPLANK (OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES ER5-425

ADDENDA FLOOR PLAN NOTES

NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1390B
LOWER FLOOR	630 SQ. FT.
UPPER FLOOR	797 SQ. FT.
TOTAL	1427 SQ. FT.
GARAGE	426 SQ. FT.
COVERED ENTRY	35 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT
No. C 12920
REN 4-30-21
STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1390

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1390B
ADDENDA PLANS

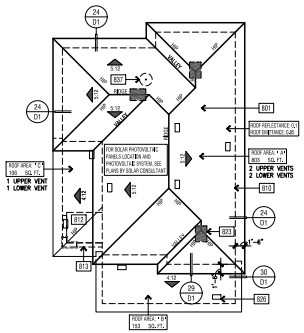
PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	2018077.07
CAD FILE NAME :	

202

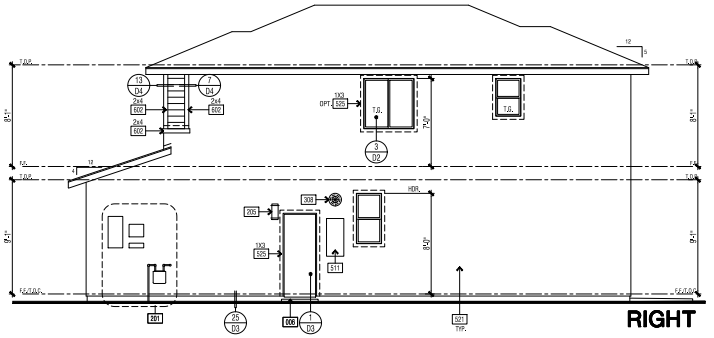
DATE: 06-18-20

A1.5

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



ATTIC VENTILATION CALCULATIONS						PLAN	4B
ROOF ATTIC AREA	A	833	SQ. FT.	CALCULATION FACTOR:			1/300
		119952	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	396	SQ. IN	TOTAL PROVIDED:		396	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	198	SQ. IN	TOTAL HIGH PROVI		198	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	198	SQ. IN	TOTAL LOW PROVI		198	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	2		198	SQ. IN
				TOTAL PROVIDED:		198	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	2		198	SQ. IN
				TOTAL PROVIDED:		198	SQ. IN
ROOF ATTIC AREA	B	153	SQ. FT.	CALCULATION FACTOR:			1/150
		22032	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	147	SQ. IN	TOTAL PROVIDED:		198	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN X	2		198	SQ. IN
				TOTAL PROVIDED:		198	SQ. IN
ROOF ATTIC AREA	C	106	SQ. FT.	CALCULATION FACTOR:			1/150
		15264	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	102	SQ. IN	TOTAL PROVIDED:		198	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN X	2		198	SQ. IN
				TOTAL PROVIDED:		198	SQ. IN



ELEVATION KEY NOTES

Name	NOTE
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 39" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
010	CONCRETE PATIO (BY OTHERS)
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL, 8" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT/INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT "R" GUARD ESR-1566 BY "STARR R FOAM".
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. (EX: EL DORADO STONE) ICC-ES ER-1568
601	WOOD TRIM(S) - SEE PER DETAIL
602	WOOD TRIM(S) - SEE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK "HARDIPLANK" (OR EQUIVALENT, FINISH: SELECT COUNTRYMILL, EXPOSURE 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) ICC-ES NER-405
701	GUTTER/FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS, THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF 0F GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.03

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING ICC# ESR-1900	1/01	2x6	2x6	1'-6" U.N.O.	1'-0"

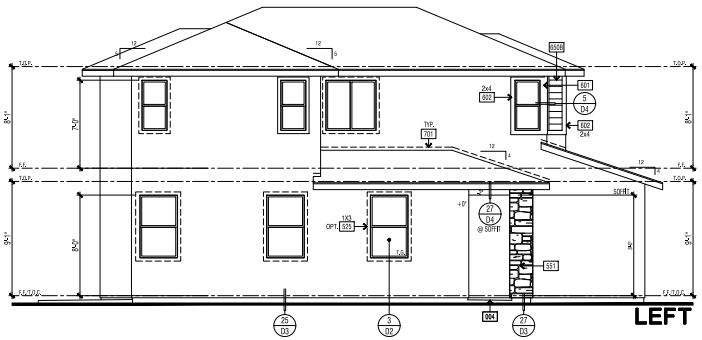
ROOF PLAN NOTES

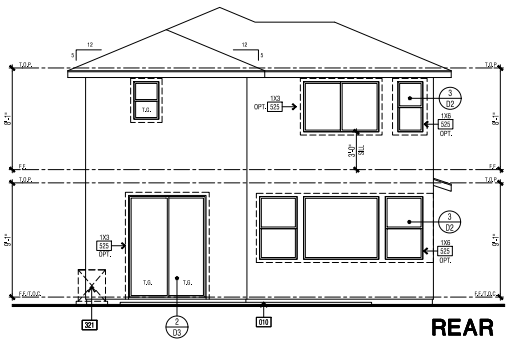
1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

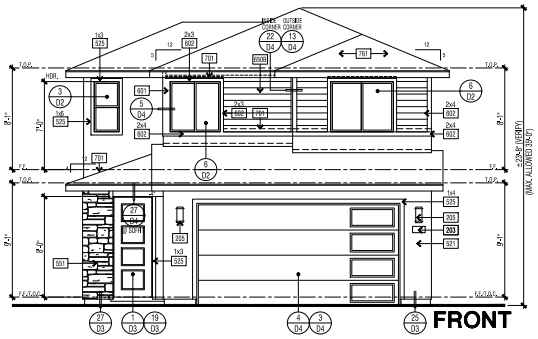
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.2.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS "A" ROOFING - CONCRETE - "FLAT" TILE BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - CHASE™ XL SERIES® CLOAKED VENT (ICC # NER-9950A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY WITH COM TO ALL ATTIC AREAS







SCALE: 1/4" = 1'-0"

WHA.
ARCHITECTS · PLANNERS · DESIGNERS
ORANGE COUNTY · LOS ANGELES · BAY AREA

WILSON HOMES

NEW ELEV8IONS - PLAN 1390

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR ASSIGNMENT BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

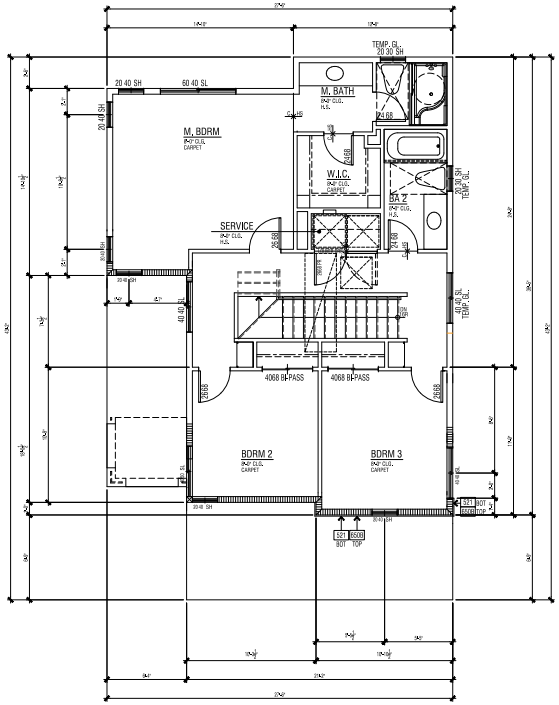
REVISIONS

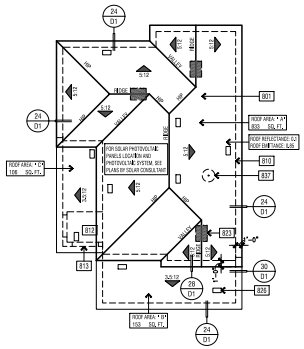
NO.	DATE	DESCRIPTION

PLAN 1390B EXTERIOR ELEVATIONS & ROOF PLAN

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	203
CAD FILE NAME:	
DATE:	06-18-20
SHEET	A1.6

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020


TEMP. GL.
20 30 SH
M. BATH
INCP. ELEC.
H.C.
20 40 SH
60 40 SL
M. BDRM
INCP. ELEC.
CARPET
W.I.C.
INCP. ELEC.
CARPET
SERVICE
INCP. ELEC.
H.C.
24 68
4068 BI-PASS
4068 BI-PASS
BDRM 2
INCP. ELEC.
CARPET
BDRM 3
INCP. ELEC.
CARPET
5068
5068
5068



ATTIC VENTILATION CALCULATIONS					PLAN 4C
ROOF ATTIC AREA	A	833	SQ. FT.	CALCULATION FACTOR:	1/300
		119952	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	396	SQ. IN	TOTAL PROVIDED:	396 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	198	SQ. IN	TOTAL HIGH PROVI	198 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	198	SQ. IN	TOTAL LOW PROVI	198 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE	-	99	SQ. IN	X 2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE	-	99	SQ. IN	X 2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

ROOF ATTIC AREA	B	153	SQ. FT.	CALCULATION FACTOR:	1/150
		22032	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	147	SQ. IN	TOTAL PROVIDED:	198 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE	-	99	SQ. IN	X 2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

ROOF ATTIC AREA	C	106	SQ. FT.	CALCULATION FACTOR:	1/150
		15264	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	102	SQ. IN	TOTAL PROVIDED:	198 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE	-	99	SQ. IN	X 2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C ELEVATION STYLE: PROGRESSIVE NAPA

ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	RAKE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING' ICC# ESR-1900	1 01.1	2X6	2X6	1'-0"	1'-0"

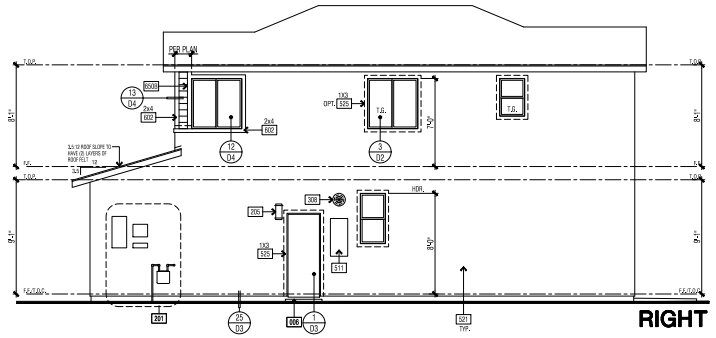
ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE, WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3, (R905.3.3 CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE. CALIFORNIA FIRE CODE, AND THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL/PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - "FLAT" TILE BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - OMAGN "XL SERIES" CLOAKED VENT (ICC # NER-B693A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS



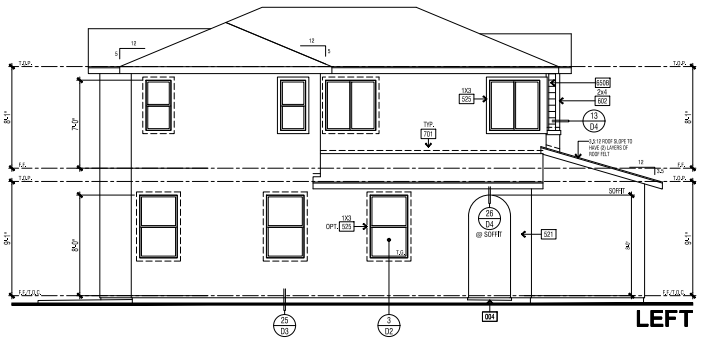
ELEVATION KEY NOTES

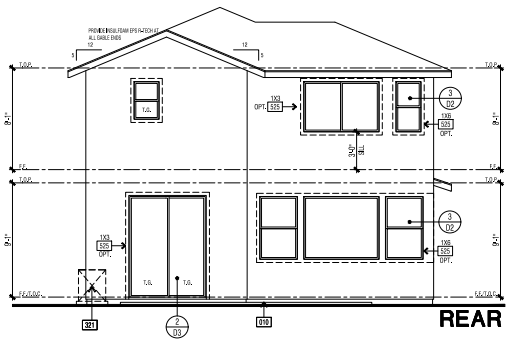
Name	NOTE
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 3" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
010	CONCRETE PATIO (BY OTHERS)
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 9" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
209	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-ANR, VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO NICHE - SEE PER ELEVATION - SLOPE SILL ¼" PER FT. MINIMUM
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SPAT 'N' GUARD ESR-1566 BY STARR II FOAM.
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
592	OVERHEAD AWNING - SEE AND STYLE PER ELEVATION
602	WOOD TRIM(S) - SEE PER ELEVATION
6509	FIBER CEMENT LAP SIDING - 5/16" THICK "HARDIPLANK" (OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) ICC-ES NER-405
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC# ESR 1900

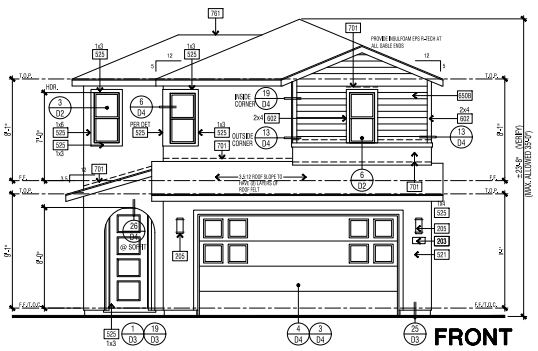
ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF OF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.03

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.







SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1390

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1390C EXTERIOR ELEVATIONS & ROOF PLAN

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	205
CAD FILE NAME:	
DATE:	06-18-20
	A1.8

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. CRAWL SPACES: ACCESS PER CRC R408.4 AND VENTILATION PER R408.1.
3. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R202 & R310. MEANS OF EGRESS PER CRC 311.
4. GLAZING PER CRC R303.1, R301.2.1.2 & R308.
5. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 AND A.G.M.D. RULE 445.
6. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
7. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 506.0.
8. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
9. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305.
10. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.
11. THE SILL HEIGHT IS NOT TO EXCEED 44" FROM THE BOTTOM OF THE CLEAR OPENING IN SLEEPING ROOMS. CRC R31.0.1
12. IN UPPER FLOOR PLANS, ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE FIXED GLASS, THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. CRC R312.2
13. A SHEETROCK NAILING INSPECTION IS REQUIRED. CRC R109.1.4.2
14. GLAZING IN A HAZARDOUS LOCATION IS REQUIRED TO BE GLAZED WITH SAFETY MATERIAL. CRC R308
15. PROVIDE A 6" SQUARE FRESH AIR INTAKE FOR THE GAS APPLIANCE IRREPLACE 2019 1-24
16. VERTICAL CLEARANCE ABOVE THE COOKTOP TO COMBUSTIBLES IS 30" UNPROTECTED, OR 24" PROTECTED, AND THE HORIZONTAL DIMENSIONS IS REQUIRED TO BE PER THE PERMANENT MARKING LISTED ON THE UNIT. CMC 916.1 & 916.2
17. THE WALL SURFACE BEHIND CERAMIC TILE OR OTHER RINSH WALL MATERIALS SUBJECT TO WATER SPLASH ARE CONSTRUCTED OF MATERIALS NOT ADVERSELY AFFECTED BY WATER, NOTE THE USE OF FIBER CEMENT, FIBER MAT, REINFORCED CEMENT OR GLASS MAT GYPSUM BACKERS ON THE FLOOR PLAN. NOTE THAT WATER RESISTANT GYPSUM BOARD IS NO LONGER PERMITTED TO BE USED IN THESE LOCATIONS. CRC R702.4.2
18. THE THREE CAR GARAGE IS NON-CONFORMING AND THE REQUIRED SIDEYARD SETBACKS MAY NOT BE RELAXED. CRC R106.1.1
19. NOTE THAT ALL ATTIC ACCESS OPENINGS ARE GASKETED TO PREVENT AIR LOSS. CEC 150.0(a)
20. A MINIMUM 30" DIA. CIRCLE IS PROVIDED AT THE SHOWER FLOOR, THE MINIMUM FLOOR AREA OF THE SHOWER COMPARTMENT IS 1024 SQUARE INCHES, CPC 408.6

FLOOR PLAN KEY NOTES

Name	NOTE
001	CONCRETE SLAB (SEE STRUCTURAL DRAWINGS)
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 7" UNDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
010	CONCRETE PATIO (BY OTHERS)
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE AND EXTENDED TO THE ROOF SHEATHING PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE R/L/CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE RRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (RTSL9) - INSTALL PER MANUFACTURERS INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURERS INSTRUCTIONS, BY HEATILATOR MODEL # NO4642 AND DT-DB-0202
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
334	4" DIA. G.I DRYER VENT WITH APPROVED LINT TRAP - VENT TO OUTSIDE
335	5" DIA. G.I. DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
342	RETURN AIR GRILL - SEE MECHANICAL
341	1-4"x8" MAKE-UP AIR VENT ABOVE DOOR - UNDER-CUT THE DOOR 1 INCH
344	WHOLE HOUSE EXHAUST FAN PER 2010 CEC, REFER TO ATTACHED "SUMMARY OF THE 2010 ENERGY CODE ASHRAE 62.2 REQUIREMENTS"
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
357	UTILITY SINK
359	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT, EXHAUST VENT TO OUTSIDE
367	30" OVEN
369	30" OVER THE COUNTER MICROWAVE OVEN/HOOD COMBO
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP IN TUB - 59" X 59"
380	TUB/ SHOWER - 32"X60" MODEL 2160DT - SELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR (MIN. 22" WIDTH)/ ENCLOSURE
383	TUB ACCESS PANEL
386	SHOWER - PREFABRICATED STALL - 36"x60"X76" MODEL 1600DTS - SELCOAT SURFACE - BY AQUATIC
387	SHOWER - LASCO MODEL# 1600DTS (30" DIA CIRCLE PROVIDED) - MIN. 1,024 SLT FLOOR AREA
390	SHOWER SEAT - SLOPE 2" MINIMUM TO DRAIN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
397	SOAP SHELF
401	INTERIOR SOFFIT(S)/ CROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
412	OPEN TO ABOVE
413	OPEN TO BELOW
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.(b)q1, ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
417	22"X30" 1-HOUR ATTIC ACCESS-DIMENSIONS CLEAR
421	STUCCO CEILING HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
427	STUCCO SOFFIT OVER WATERPROOFED STUCCO SHELF - SLOPE FRAMING FOR DRAINAGE (1/4" PER FOOT MINIMUM)
428	ARCHED STUCCO SOFFIT - HEIGHT PER ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X PONY WALL - SIZE PER PLAN
444	+ 30" + 38" HANDRAIL (SEE DETAIL 19.D5)
445	+ 42" GUARD (SEE DETAIL 19.D5)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
454	DESK
455	LINEN
456	LINEN (UPPER & LOWER)
457	LINEN (LOW ONLY)
458	WIRE SHELF
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

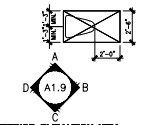
NAILING SCHEDULE IS LOCATED ON SHEET SD.2

WALL LEGEND

= 2 x 6 DF., @ 2 AT 16" O.C.

= 2 x 4 DF., @ 2 AT 16" O.C.

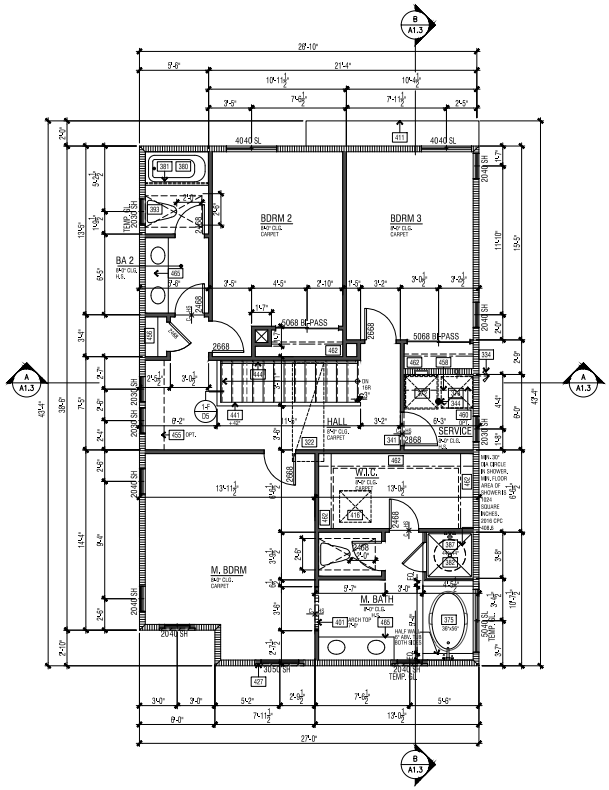
REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



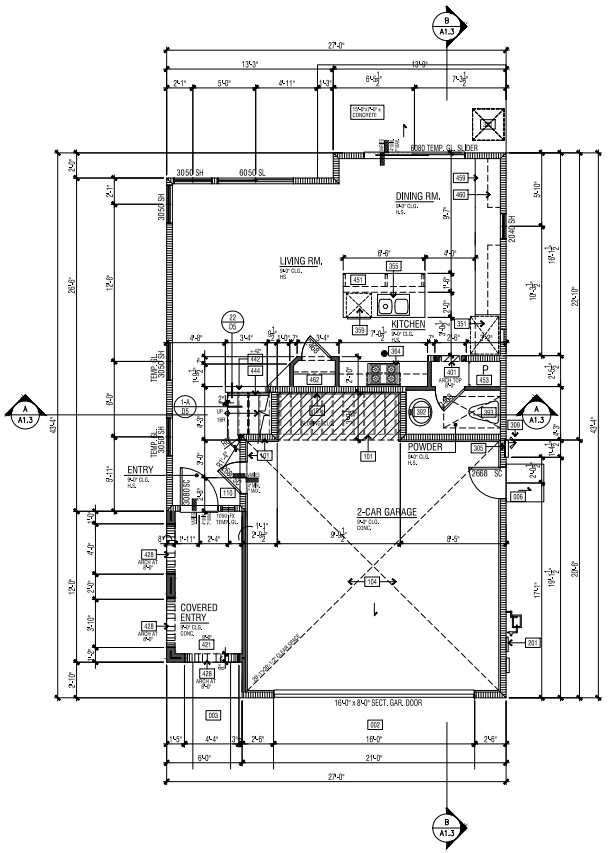
INTERIOR ELEVATION KEY

SPN #	.
FLOOR AREA TABLE	PLAN 1648A
LOWER FLOOR	589 SQ. FT.
UPPER FLOOR	1063 SQ. FT.
TOTAL	1651 SQ. FT.
2-CAR GARAGE	466 SQ. FT.
COVERED ENTRY	72 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION



UPPER FLOOR PLAN



LOWER FLOOR PLAN

SEE SHEET A1.5 & A1.7 FOR ADDENDA FLOOR PLANS

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1648

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

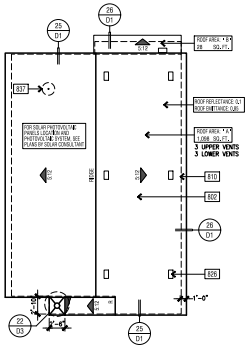
PLAN 1648A
FLOOR PLANS

PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	06-18-20

206

A1.1

2018077.07 - FIRST BLDG DEPARTMENT SUBMITTAL SET 06-18-2020



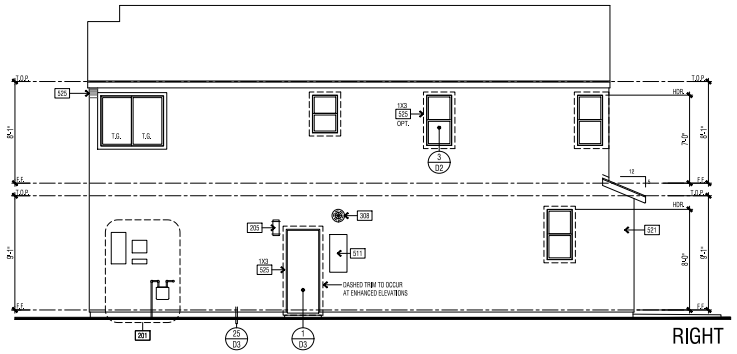
ATTIC VENTILATION CALCULATIONS					PLAN	6A
ROOF ATTIC AREA	A	1098	SQ. FT.	CALCULATION FACTOR:		1/300
		158112	SQ. IN.			
MIN. VENTILATION REQUIRED:	TOTAL	520	SQ. IN	TOTAL PROVIDED:	588	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	260	SQ. IN	TOTAL HIGH PROVI	294	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	260	SQ. IN	TOTAL LOW PROVI	294	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	3	294 SQ. IN
				TOTAL PROVIDED:	294 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	3	294 SQ. IN
				TOTAL PROVIDED:	294 SQ. IN

ROOF ATTIC AREA	B	28	SQ. FT.	CALCULATION FACTOR:	1/150
		4032	SQ. IN.		
MIN. VENTILATION REQUIRED:	TOTAL	27	SQ. IN	TOTAL PROVIDED:	98 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	1	98 SQ. IN
				TOTAL PROVIDED:	98 SQ. IN



ELEVATION KEY NOTES	
Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-VENT, NOT COMBUSTION AIR INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
516	DECORATIVE FOAM ACCENT - SEE DETAIL 22/D3 - ICC ESR 1996
521	STUCCO - OMEGA ORAMONT WALL ONE COAT STUCCO (PA) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT 'Y' GUARD ESR-1566 BY 'START R FOAM'
525	STUCCO OVER HIGH DENSITY FOAM TRIM - FOAM SHAPE PER ELEVATION
602	WOOD TRIM (S) - SIZE PER ELEVATION
6509	FIBER CEMENT LAP SIDING - 5/16" THICK *HARDIPLANK* (OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) MOC-SES-7430R-695
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
762	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF CF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.03

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'S' TILE *EAGLE ROOFING ICC# ESR-1900	1/D1	2X6	NONE	1'-0"	TIGHT

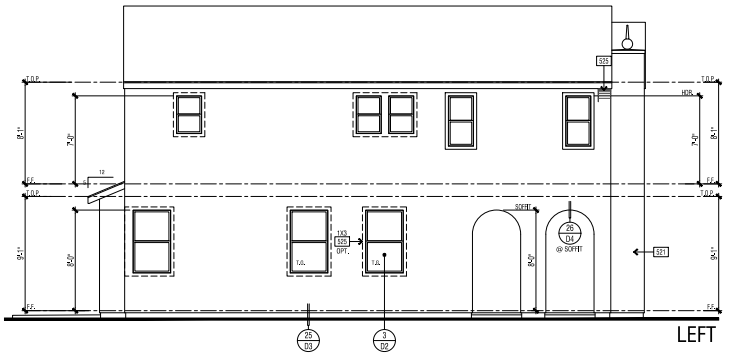
ROOF PLAN NOTES

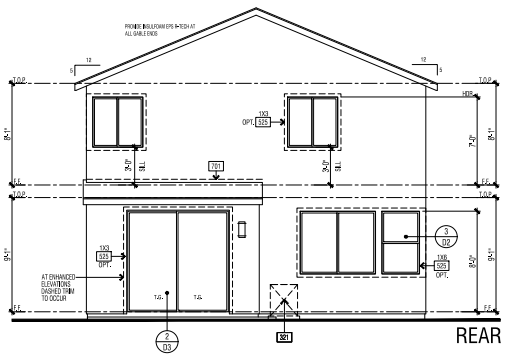
1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806, PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE, EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE, UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½ :12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2? CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

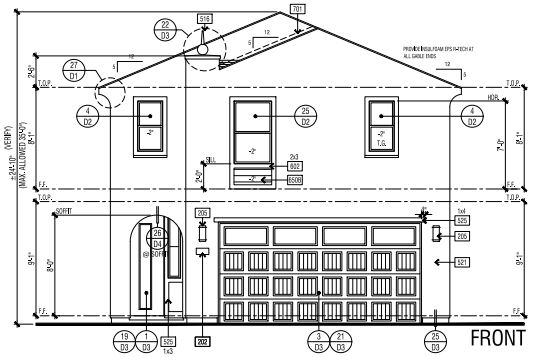
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

Name	NOTE
002	ROOFING - CONCRETE - LOW PROFILE 'S' TILE BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
826	ROOF VENT - OMAGNI 'XL SERIES' CLOAKED VENT (CC # NER-9950A)
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY ARROW TO ALL ATTIC AREAS







SCALE: 1/4" = 1'-0"

WHA.
ARCHITECTS . PLANNERS . DESIGNERS
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT
No. C 12920
DEN 4-30-21
STATE OF CALIFORNIA

WILSON HOMES

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

NEW ELEV8IONS - PLAN 1648

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

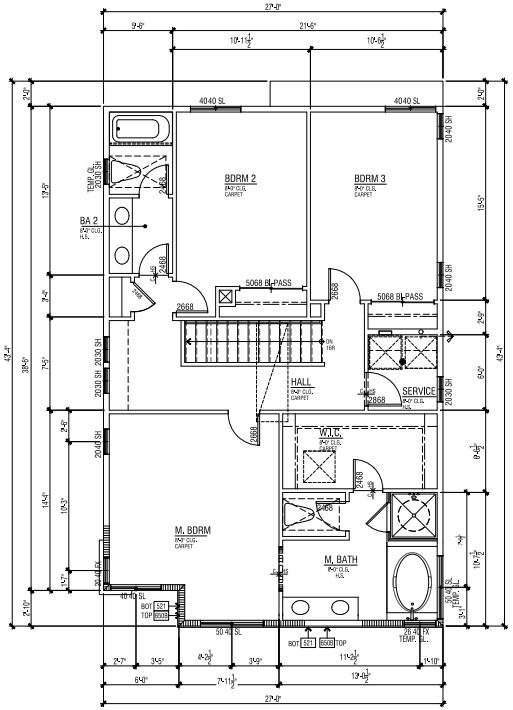
PLAN 1648A
EXTERIOR ELEVATIONS
& ROOF PLAN

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	
CAD FILE NAME:	
DATE:	06-18-20

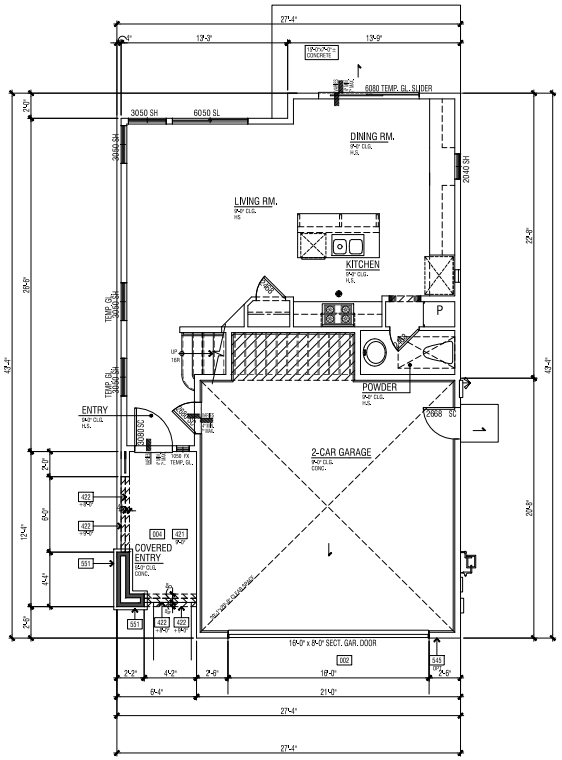
207

A1.4

2018077.07 - FIRST BLDG DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
421	STUCCO CEILING HEIGHT PER PLAN
422	STUCCO SOFFIT HEIGHT PER PLAN
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE I OR 11 PORTLAND CEMENT OVER GRAT ❖ GUARD ESR-1566 BY START R FOAM.
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS. BY 'EL DORADO STONE'ECLAS ER-5068
6508	FIBER CEMENT LAP SIDING - 5/16" THICK HARDIPLANK (OR EQUIVALENT, FINISH SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES NER-405

ADDENDA FLOOR PLAN NOTES

NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1648B
LOWER FLOOR	588 SQ. FT.
UPPER FLOOR	1063 SQ. FT.
TOTAL	1651 SQ. FT.
2-CAR GARAGE	466 SQ. FT.
COVERED ENTRY/PORCH	74 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1648

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANY THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1648B
ADDENDA PLANS

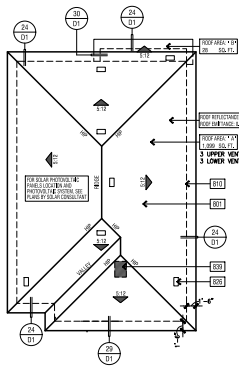
PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	2018077.07
CAD FILE NAME :	

208

DATE: 06-18-20

A1.5

2018077.07 - FIRST BLDG DEPARTMENT SUBMITTAL SET 06-18-2020



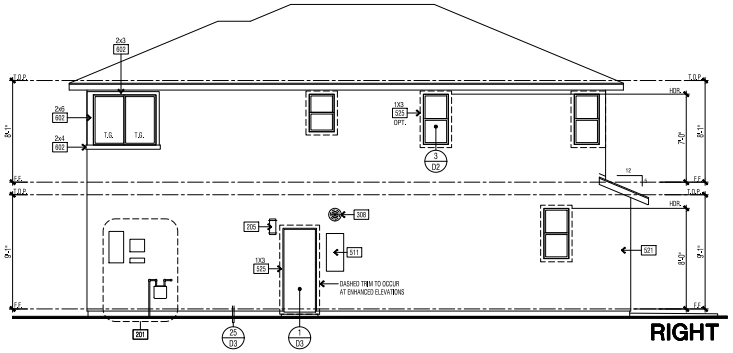
ATTIC VENTILATION CALCULATIONS						PLAN	6B
ROOF ATTIC AREA	A	1099	SQ FT	CALCULATION FACTOR:		1/300	
		158256	SQ IN				
MIN. VENTILATION REQUIRED:	TOTAL	522	SQ IN	TOTAL PROVIDED:		594	SQ IN
MIN. VENTILATION REQUIRED:	HIGH	261	SQ IN	TOTAL HIGH PROVI		297	SQ IN
MIN. VENTILATION REQUIRED:	LOW	261	SQ IN	TOTAL LOW PROVI		297	SQ IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE	-	99	SQ. IN	X	3	297	SQ IN
					TOTAL PROVIDED:	297	SQ IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE	-	99	SQ. IN	X	3	297	SQ IN
					TOTAL PROVIDED:	297	SQ IN

ROOF ATTIC AREA	B	28	SQ FT	CALCULATION FACTOR:	1/150
		4032	SQ IN		
MIN. VENTILATION REQUIRED:	TOTAL	27	SQ IN	TOTAL PROVIDED:	99 SQ IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE	-	99	SQ. IN	X	1	99	SQ IN
					TOTAL PROVIDED:	99	SQ IN

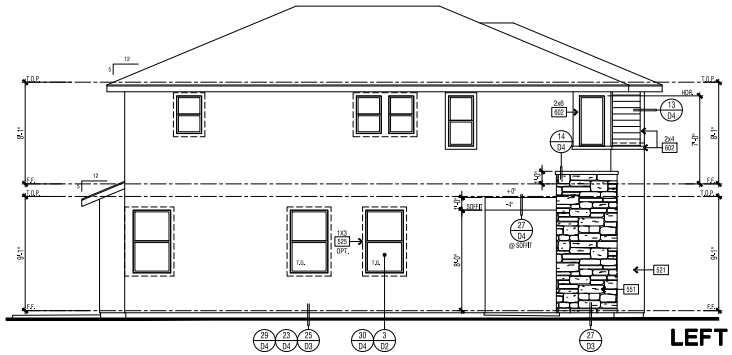


ELEVATION KEY NOTES	
Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL, 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-DUAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
311	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT 'S' GUARD ESR-1566 BY STARR II FOAM.
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS, 3/4" EL DORADO STONE ICC-ES ER-3568
602	WOOD TRIM/S - SEE PER ELEVATION
655R	FIBER CEMENT LAP SIDING - 5/16" THICK "HARDIPLANK" (OR EQUIVALENT, FINISH: SELECT CEDARMILL - EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES #ESR-1495
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF CF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.63

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.



ROOF PLAN

SCALE: 1/8" = 1'-0"

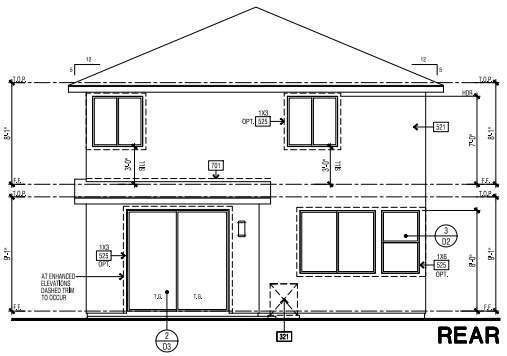
ELEVATION REFERENCE:	B	ELEVATION STYLE:	MODERN			
ROOF MATERIAL	STANDARD ROOF DETAIL (U.N.O.)	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING ICC# ESR-1900	1/01	2x6	2x6	1'-6" U.N.O.	1'-0"

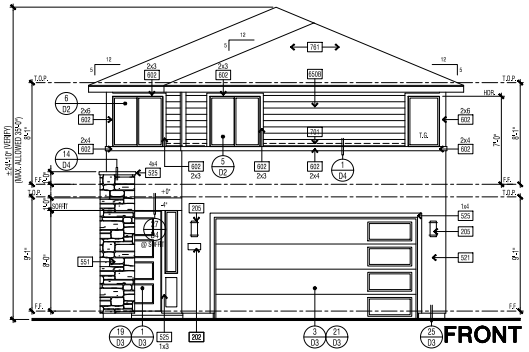
ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806, PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½ 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC).
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES	
Name	NOTE
601	ROOFING - CONCRETE - "FLAT" TILE BY EAGLE ROOFING ICC# ESR 1900
610	LINE OF WALL BELOW
612	STUCCO CEILING
614	WOOD SOFFIT
626	ROOF VENT - DYNAMIC "XL SERIES" CLOAKED VENT (ICC # NER-585DA)
639	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS





SCALE: 1/4" = 1'-0"

ARCHITECTS · PLANNERS · DESIGNERS
WHA.
ORANGE COUNTY · LOS ANGELES · BAY AREA

WILSON HOMES

NEW ELEV8IONS - PLAN 1648

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

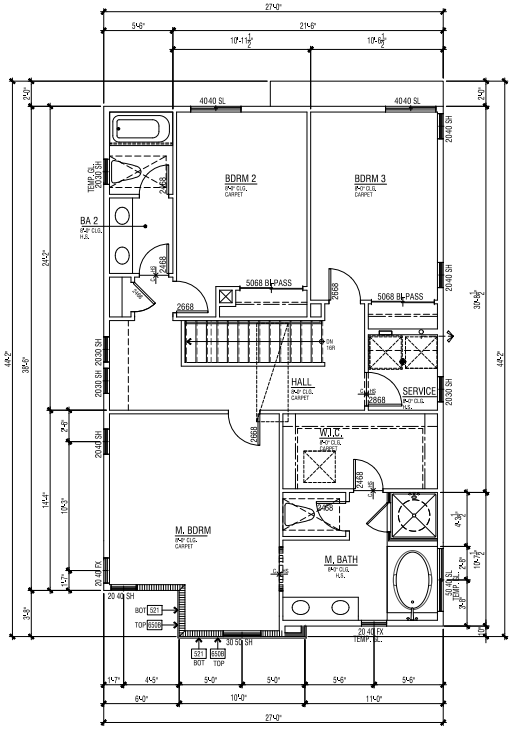
REVISIONS

NO.	DATE	DESCRIPTION

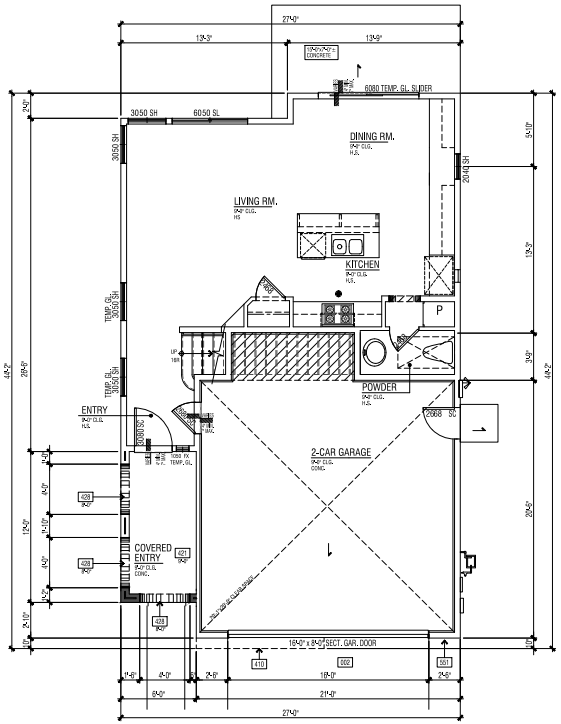
PLAN 1648B
EXTERIOR ELEVATIONS
& ROOF PLAN

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	209
CAD FILE NAME:	
DATE:	06-18-20
SHEET	A1.6

2018077.07 - FIRST BLDG DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 2% PER FOOT MINIMUM IN DIRECTION INDICATED
410	LINE OF FLOOR ABOVE
421	STUCCO CEILING HEIGHT PER PLAN
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE: I OR 11 PORTLAND CEMENT OVER SRAT 'N' GUARD ESR-1566 BY START R FOAM'.
428	ARCHED STUCCO SOFFIT, HEIGHT PER PLAN
6588	FIBER CEMENT LAP SIDING - 5/16" THICK HARDIPLANK (OR EQUIVALENT), 7INCH SELECT CEDARMILL, EXPOSURE: 5" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES NER-405

ADDENDA FLOOR PLAN NOTES

NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1648C
LOWER FLOOR	589 SQ. FT.
UPPER FLOOR	1071 SQ. FT.
TOTAL	1660 SQ. FT.
2-CAR GARAGE	466 SQ. FT.
COVERED ENTRY/PORCH	72 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT
No. C 12920
REN 4-30-21
STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1648

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANY THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1648C
ADDENDA PLANS

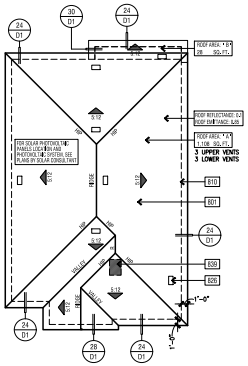
PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	2018077.07
CAD FILE NAME :	

DATE: 06-18-20

210

A1.7

2018077.07 - FIRST BLDG DEPARTMENT SUBMITTAL SET 06-18-2020



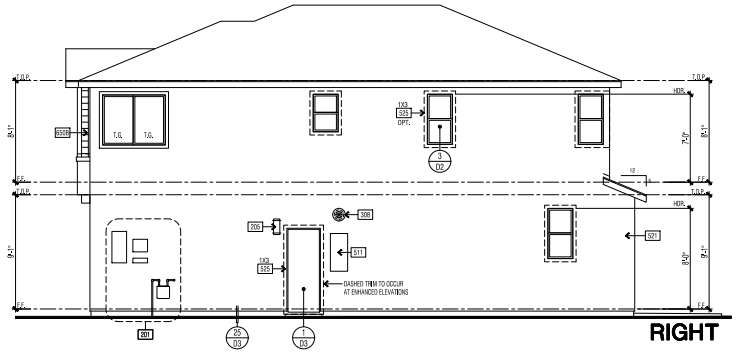
ATTIC VENTILATION CALCULATIONS						PLAN	6C
ROOF ATTIC AREA	A	1108	SQ. FT.	CALCULATION FACTOR:		1/300	
		159552	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	526	SQ. IN	TOTAL PROVIDED:	594	SQ. IN	
MIN. VENTILATION REQUIRED:	HIGH	263	SQ. IN	TOTAL HIGH PROVI	297	SQ. IN	
MIN. VENTILATION REQUIRED:	LOW	263	SQ. IN	TOTAL LOW PROVIE	297	SQ. IN	

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	3		297	SQ. IN
				TOTAL PROVIDED:		297	SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	3		297	SQ. IN
				TOTAL PROVIDED:		297	SQ. IN

ROOF ATTIC AREA	B	28	SQ. FT.	CALCULATION FACTOR:		1/150	
		4032	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	27	SQ. IN	TOTAL PROVIDED:	99	SQ. IN	

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN



RIGHT

ELEVATION KEY NOTES	
Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 8" MIN, HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
306	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-VENTING WITH INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO NICHE - SIZE PER ELEVATION - SLOPE SILL 2" PER FT. MINIMUM
521	STUCCO - ONESA DIAMOND WALL ONE COAT STUCCO (R-) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT 'P' GUARD ESR-1566 BY STARR P, FOAM,
525	STUCCO OVER FOAM TRIM - FOAM SHAPE PER ELEVATION
592	AWNING BY 'PYPOP' - SIZE AND STYLE PER ELEVATION
602	WOOD TRIM(S) - SEE PER ELEVATION
6508	FIBER CEMENT LAP SIDING - 5/16" THICK HARDIPLANK OR EQUIVALENT, FINISH: SELECT COSMAIL, EXPOSURE: 8" INSTALLATION PER MANUFACTURERS INSTRUCTIONS ICC-ES NER-405
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF 0F GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.8.3

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ROOF PLAN

SCALE: 1/8" = 1'-0"

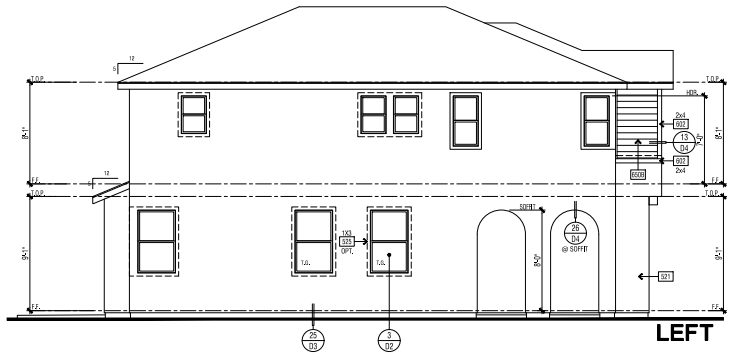
ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL (U.N.O.	FASCIA - U.N.O.	RAFTER - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING ICC# ESR-1900	1 D1/1	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

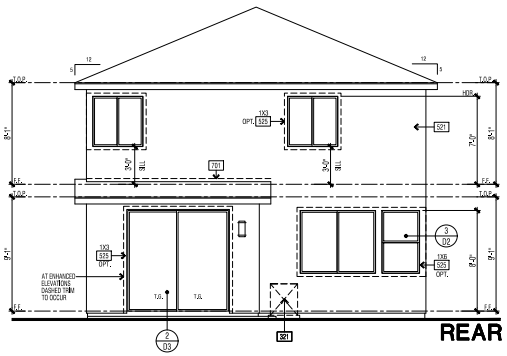
1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.2 CRC).
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL, PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

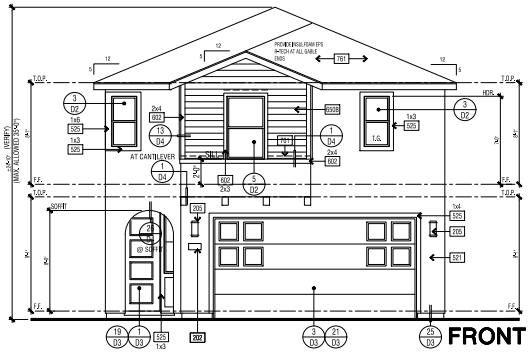
ROOF PLAN KEY NOTES	
Name	NOTE
801	ROOFING - CONCRETE - "FLAT" TILE BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFIT
835	ROOF VENT - DHAGIN "XL SERIES" CLOAKED VENT (OC # NER-665SA)
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

WILSON HOMES

NEW ELEV8IONS - PLAN 1648

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

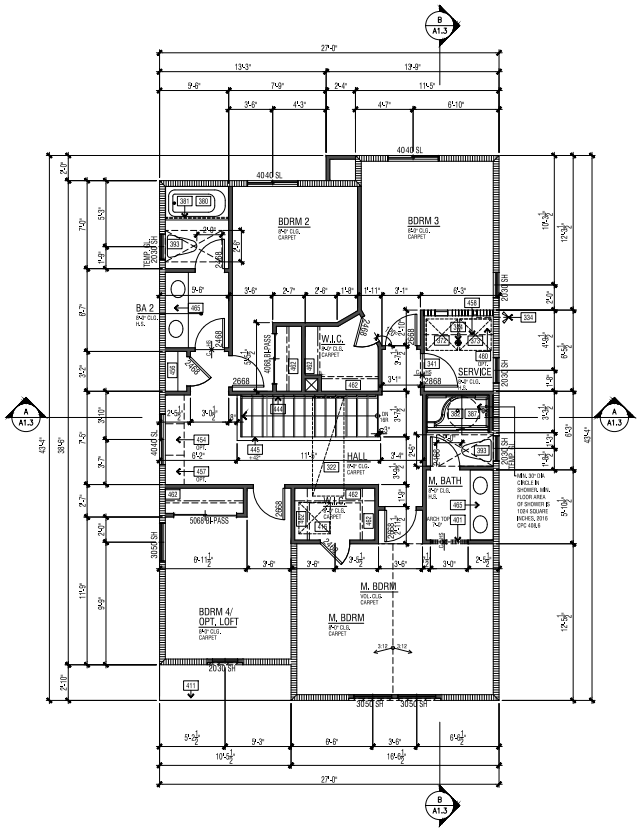
REVISIONS

NO.	DATE	DESCRIPTION

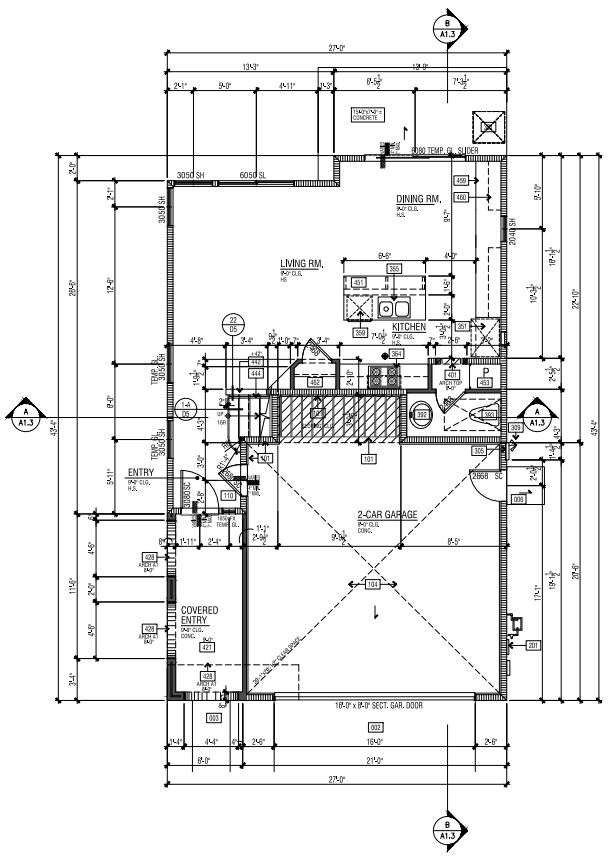
PLAN 1648C
EXTERIOR ELEVATIONS
& ROOF PLAN

PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	211
CAD FILE NAME :	
DATE:	06-18-20
	A1.8

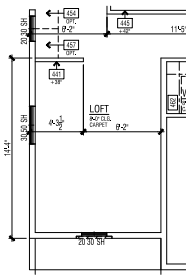
2018077.07 - FIRST BLDG DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN



LOFT ILO BDRM 4

SEE SHEET A1.5 & A1.7 FOR ADDENDA FLOOR PLANS

FLOOR PLAN KEY NOTES

Name	NOTE
001	CONCRETE SLAB (SEE STRUCTURAL DRAWINGS)
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" UNDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
010	CONCRETE PATIO - SEE PER PLAN (BY OTHERS)
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE AND EXTENDED TO THE ROOF SHEATHING PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE RBE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (RTLS) - INSTALL PER MANUFACTURERS INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURERS INSTRUCTIONS, BY HEARTH.COM MODEL # 42HDX2 AND 27.DB-B202
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
334	4" DIA. CL DRYER VENT WITH APPROVED LINT TRAP - VENT TO OUTSIDE
335	4" DIA. CL DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
341	1-4"x8" MAKE-UP AIR VENT ABOVE DOOR - UNDER-CUT THE DOOR 1 INCH
342	RETURN AIR GRILL - SEE MECHANICAL
344	WHOLE HOUSE EXHAUST FAN PER 2016 CEC, REFER TO ATTACHED "SUMMARY OF THE 2010 ENERGY CODE ASHRAE 62.2 REQUIREMENTS"
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
357	UTILITY SINK
359	DISHWASHER - ENERGY STAR
364	COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT (EXHAUST VENT TO OUTSIDE), THE VERTICAL CLEARANCE ABOVE THE COOKTOP TO COMBUSTIBLE IS 30" UNPROTECTED, OR 24" PROTECTED, AND THE HORIZONTAL DIMENSION IS REQUIRED TO BE PER THE MARKING LISTED ON THE UNIT. 2019 CMC 921.3.2 & 921.4.3
367	30" OVEN
372	WASHER SPACE WITH RECESSED WATER BOX AND DRL, WIDE SMITTY PAN
373	DRYER SPACE
380	TUB/ SHOWER - 32"X60" MODEL 2903DT - SELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR (MIN. 22" WIDTH)/ ENCLOSURE
383	TUB ACCESS PANEL
387	SHOWER - LASCO MODEL# 1603DTS (30" DIA CIRCLE PROVIDED) - (MIN. 1,024 SLL FLOOR AREA)
389	SHOWER SEAT - SLOPE 2" MINIMUM TO DRAIN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 30" X 36" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
412	OPEN TO ABOVE
413	OPEN TO BELOW
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.0(q)1. ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
417	22"X30" 1-HOUR ATTIC ACCESS-DIMENSIONS CLEAR
421	STUCCO CEILING HEIGHT PER PLAN
422	STUCCO SOFFIT HEIGHT PER PLAN
427	STUCCO SOFFIT OVER WATERPROOFED STUCCO SHELF - SLOPE FRAMING FOR DRAINAGE (1/4" PER FOOT MINIMUM)
428	ARCHED STUCCO SOFFIT - HEIGHT PER ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X POny WALL - SEE PER PLAN
444	+34" - +38" HANDRAIL (SEE DETAIL 15/D5)
445	+42" GUARD (SEE DETAIL 17/D5)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
454	DESK
455	LINEN
456	LINEN (UPPER & LOWER)
457	LINEN (LOW ONLY)
458	WIRE SHELF
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R805.
2. CRAWL SPACES: ACCESS PER CRC R408.4 AND VENTILATION PER R408.1.
3. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R202 & R310, MEANS OF EGRESS PER CRC 311.
4. GLAZING PER CRC R303.1, R301.2.1.2 & R308.
5. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 AND A.G.M.D. RULE 445.
6. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
7. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 506.0.
8. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 604.
9. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305.
10. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.
11. THE SILL HEIGHT IS NOT TO EXCEED 44" FROM THE BOTTOM OF THE CLEAR OPENING IN SLEEPING ROOMS, CRC R31.0.1
12. IN UPPER FLOOR PLANS, ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE FIXED GLASS, THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. CRC R312.2
13. A SHEETROCK NAILING INSPECTION IS REQUIRED. CRC R109.1.4.2
14. GLAZING IN A HAZARDOUS LOCATION IS REQUIRED TO BE GLAZED WITH SAFETY MATERIAL. CRC R308
15. PROVIDE A 6" SQUARE FRESH AIR INTAKE FOR THE GAS APPLIANCE FIREPLACE 2019 T-24
16. VERTICAL CLEARANCE ABOVE THE COOKTOP TO COMBUSTIBLES IS 30" UNPROTECTED, OR 24" PROTECTED, AND THE HORIZONTAL DIMENSIONS IS REQUIRED TO BE PER THE PERMANENT MARKING LISTED ON THE UNIT. CMC 916.1 & 916.2
17. THE WALL SURFACE BEHIND CERAMIC TILE OR OTHER FINISH WALL MATERIALS SUBJECT TO WATER SPLASH ARE CONSTRUCTED OF MATERIALS NOT ADVERSELY AFFECTED BY WATER, NOTE THE USE OF FIBER CEMENT, FIBER MAT, REINFORCED CEMENT OR GLASS MAT GYPSUM BACKERS ON THE FLOOR PLAN, NOTE THAT WATER RESISTANT GYPSUM BOARD IS NO LONGER PERMITTED TO BE USED IN THESE LOCATIONS. CRC R702.4.2
18. THE THREE CAR GARAGE IS NON-CONFORMING AND THE REQUIRED SIDEYARD SETBACKS MAY NOT BE RELAXED. CRC R105.1.1
19. NOTE THAT ALL ATTIC ACCESS OPENINGS ARE GASKETED TO PREVENT AIR LOSS. CEC 150.0(q)
20. A MINIMUM 30" DIA. CIRCLE IS PROVIDED AT THE SHOWER FLOOR. THE MINIMUM FLOOR AREA OF THE SHOWER COMPARTMENT IS 1024 SQUARE INCHES. CPC 408.6

NAILING SCHEDULE IS LOCATED ON SHEET SD.2

WALL LEGEND

= 2 x 6 0.C. @ 48 AT 16" O.C.
= 2 x 4 0.C. @ 48 AT 16" O.C.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL

INTERIOR ELEVATION KEY

A1.9

SPN #	.
FLOOR AREA TABLE	PLAN 1660A
LOWER FLOOR	589 SQ. FT.
UPPER FLOOR	1073 SQ. FT.
TOTAL	1661 SQ. FT.
GARAGE	466 SQ. FT.
COVERED ENTRY/PORCH	89 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'-0"

WHA
ARCHITECTS . PLANNERS . DESIGNERS
ORANGE COUNTY . LOS ANGELES . BAY AREA

No. C 12920
REN 4-30-21
STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1660

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT THAT CHANGES ARE MADE OR CAUSED TO BE MADE BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

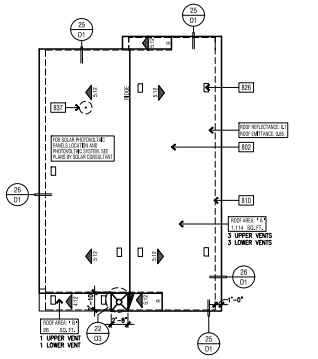
REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1660A
FLOOR PLANS & OPTION

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	212
CAD FILE NAME:	
DATE:	06-18-20
SHEET	A1.1

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



ATTIC VENTILATION CALCULATIONS — PLAN 7A

ROOF ATTIC AREA	A	1114	SQ. FT.	CALCULATION FACTOR:		1/300
		160416	SQ. IN.			
MIN. VENTILATION REQUIRED:	TOTAL	530	SQ. IN.	TOTAL PROVIDED:	588	SQ. IN.
MIN. VENTILATION REQUIRED:	HIGH	265	SQ. IN.	TOTAL HIGH PROVI	294	SQ. IN.
MIN. VENTILATION REQUIRED:	LOW	265	SQ. IN.	TOTAL LOW PROVI	294	SQ. IN.

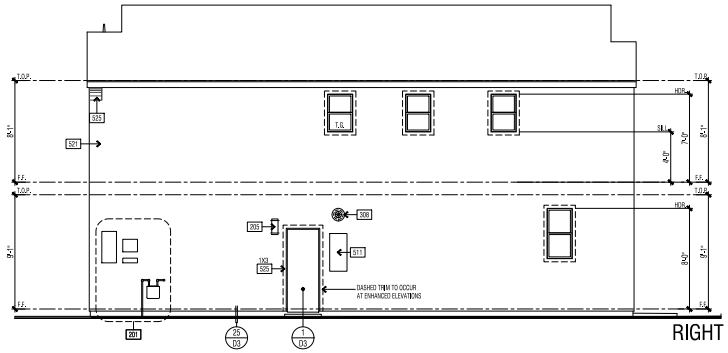
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN. X	3	294	SQ. IN.
				TOTAL PROVIDED:	294	SQ. IN.

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN. X	3	294	SQ. IN.
				TOTAL PROVIDED:	294	SQ. IN.

ROOF ATTIC AREA	B	26	SQ. FT.	CALCULATION FACTOR:		1/300
		3744	SQ. IN.			
MIN. VENTILATION REQUIRED:	TOTAL	12	SQ. IN.	TOTAL PROVIDED:	196	SQ. IN.
MIN. VENTILATION REQUIRED:	HIGH	6	SQ. IN.	TOTAL HIGH PROVI	98	SQ. IN.
MIN. VENTILATION REQUIRED:	LOW	6	SQ. IN.	TOTAL LOW PROVI	98	SQ. IN.

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN. X	1	98	SQ. IN.
				TOTAL PROVIDED:	98	SQ. IN.

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN. X	1	98	SQ. IN.
				TOTAL PROVIDED:	98	SQ. IN.



ELEVATION KEY NOTES

Name	NOTE
010	CONCRETE PATIO - SEE PER PLAN (BY OTHERS)
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
305	ACCENT EXTERIOR WALL LIGHT
309	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
516	DECORATIVE FOAM ACCENT - SEE DETAIL 22/D3 - ICC ESR 1366
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER SRAT "R" GUARD ESR-1566 BY STARR II FOAM".
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
600B	FIBER CEMENT LAP SIDING - 5/16" THICK "HARDIPLANK" (OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) ICC-ES: NER-405
674	DECORATIVE METAL WINDOW SHADE
701	GL FLASHING
702	ROOFING - CONCRETE - 'S' TILE BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A TEMPERED GLASS, THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF GF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.8.3

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH				
ROOF MATERIAL	STANDARD ROOF DETAIL (L/A/D)	FASCIA - U.N.O.	RAKE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'S' TILE (EAGLE ROOFING ICC# ESR-1900)	1/D1	2X6	NONE	1'-0"	TIGHT

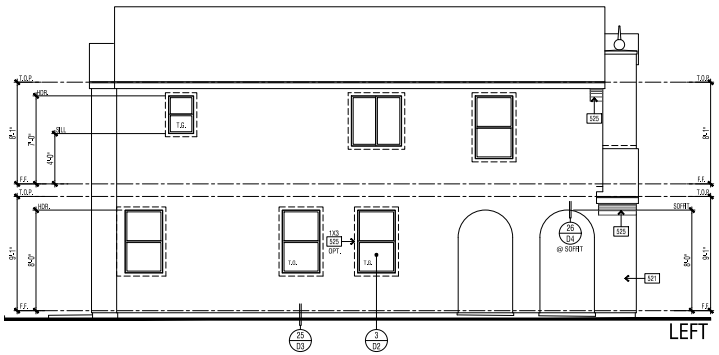
ROOF PLAN NOTES

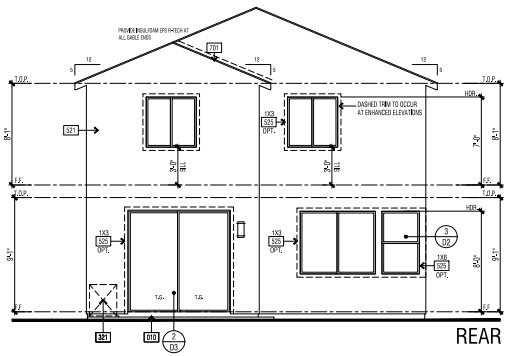
1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE, EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.3 CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

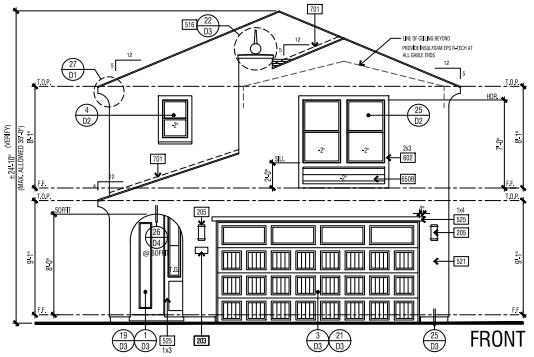
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE. CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL/PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

Name	NOTE
802	ROOFING - CONCRETE - LOW PROFILE "S" TILE BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-695OA)
827	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	WALL 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS







SCALE: 1/4" = 1'-0"

WHA
ARCHITECTS · PLANNERS · DESIGNERS
ORANGE COUNTY · LOS ANGELES · BAY AREA

WILSON HOMES

NEW ELEV8IONS - PLAN 1660

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

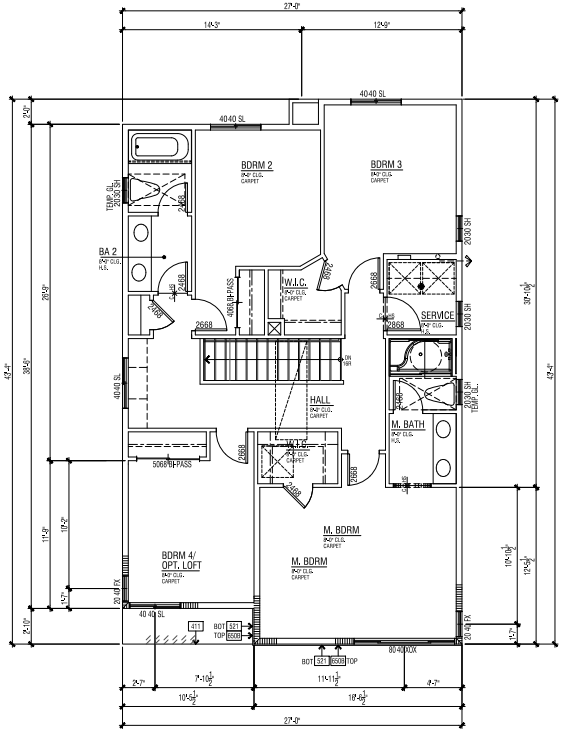
NO.	DATE	DESCRIPTION

PLAN 1660A EXTERIOR ELEVATIONS & ROOF PLAN

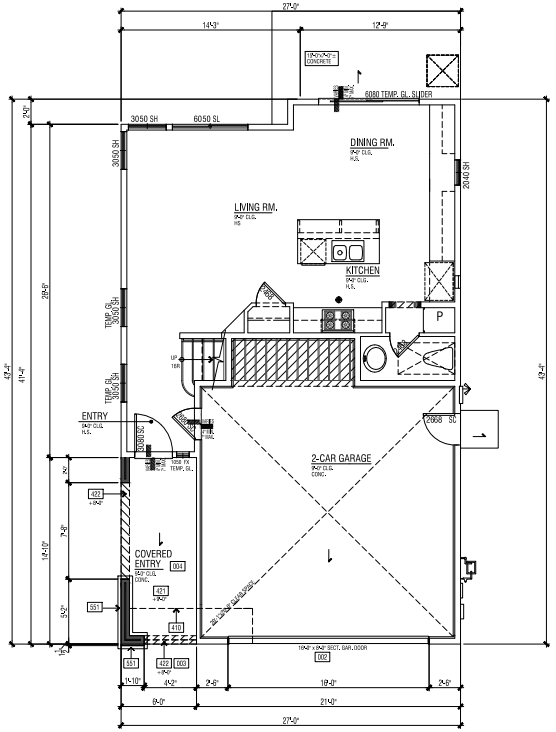
PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	213
CAD FILE NAME:	
DATE:	06-18-20

A1.4

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
421	STUCCO CEILING HEIGHT PER PLAN
422	STUCCO SOFFIT HEIGHT PER PLAN
521	STUCCO - OMEGA I DIAMOND WALL ONE COAT STUCCO (R4) ICC-# ESR-1194 STUCCO TYPE I OR 11 PORTLAND CEMENT OVER SRAT "R" GUARD ESR-1566 BY STARR R FOAM*.
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS, BY "EL DORADO STONE"ICC-ES ER-1566
6508	FIBER CEMENT LAP SIDING - 5/16" THICK HARDIPLANK® (OR EQUIVALENT, R-WEH, SELECT CEDARMILL, EXPOSURE: 8" INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES NER-405



UPPER FLOOR PLAN



LOWER FLOOR PLAN

ADDENDA FLOOR PLAN NOTES

NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1660B
LOWER FLOOR	589 SQ. FT.
UPPER FLOOR	1073 SQ. FT.
TOTAL	1661 SQ. FT.
GARAGE	466 SQ. FT.
COVERED ENTRY/PORCH	89 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

WHA.
ARCHITECTS . PLANNERS . DESIGNERS
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1660

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

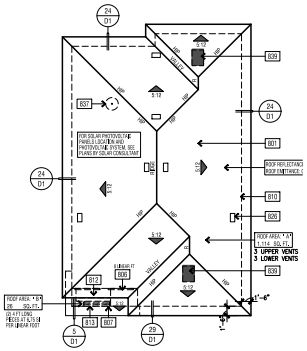
REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1660B
ADDENDA PLANS

PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	214
CAD FILE NAME :	
DATE:	06-18-20
	A1.5

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. SOFFIT	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING ICC# ESR-1900	1/01	2x6	2x6	1'-6" U.N.O.	1'-0"

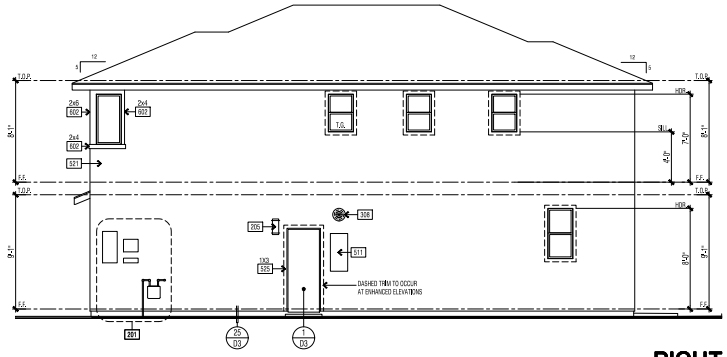
ROOF PLAN NOTES

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806, PER CRC SECTION R806.2. THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE, UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 2 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
5. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½ :12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3. (R905.3.3 CRC)
6. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
7. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

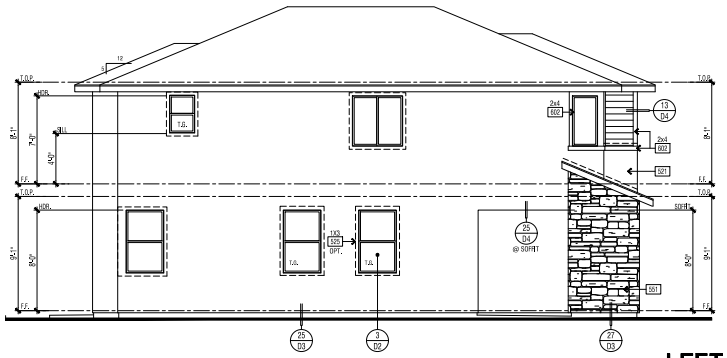
SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.7 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA. REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

ROOF PLAN KEY NOTES

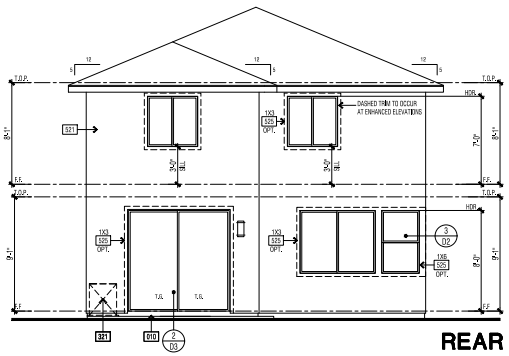
Name	NOTE
801	ROOFING - CONCRETE - "FLAT" TILE BY EAGLE ROOFING ICC# ESR-1900
806	METAL ROOF TO WALL VENT - CORE-VENT (6.75 S.E.) NET FREE AREA PER LINEAR FOOT)
807	ROOFING - METAL BY CUSTOM BELT METALS - ASTM A792
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY WITH LOW TO ALL ATTIC AREAS
926	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-566DA)



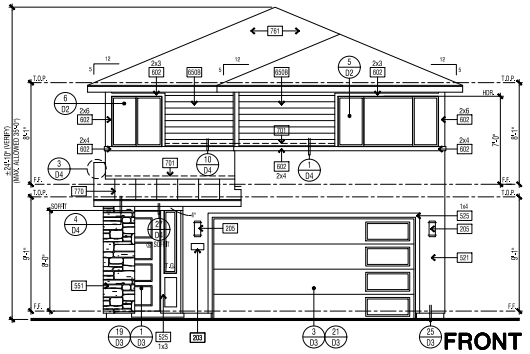
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ATTIC VENTILATION CALCULATIONS						PLAN 78
ROOF ATTIC AREA	A	1114 SQ. FT. 160416 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	530 SQ. IN		TOTAL PROVIDED:	594	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	265 SQ. IN		TOTAL HIGH PROVI	297	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	265 SQ. IN		TOTAL LOW PROVI	297	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -	-	99	SQ. IN X	3	297	SQ. IN
				TOTAL PROVIDED	297	SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -	-	99	SQ. IN X	3	297	SQ. IN
				TOTAL PROVIDED	297	SQ. IN

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ELEVATION KEY NOTES

Name	NOTE
010	CONCRETE PATIO - SEE PER PLAN (BY OTHERS)
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL, 6" MIN, HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
305	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST (DIRECTLY FROM OUTSIDE)
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (PA) ICC# ESR-1194 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER GRAY "F" GUARD ESR-1568 BY "START R FOAM".
525	STUCCO OVER FOAM TRIM - FOAM SHAPE PER ELEVATION
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS, BY "EL DORADO STONE" ICC-ES ER-3568
602	WOOD TRIM (S) - SIZE PER ELEVATION
658	FIBER CEMENT LAP SIDING - 5/16" THICK "HARDIPLANK" (OR EQUIVALENT, RUSH SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES NER-405
701	GUTTER
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC# ESR 1900
770	ROOFING - METAL BY CUSTOM BELT METALS - ASTM A792

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH, 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF 0F GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING, 2019 CRC R703.5.3

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

WHA.
ARCHITECTS . PLANNERS . DESIGNERS
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 RENEWAL 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1660

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

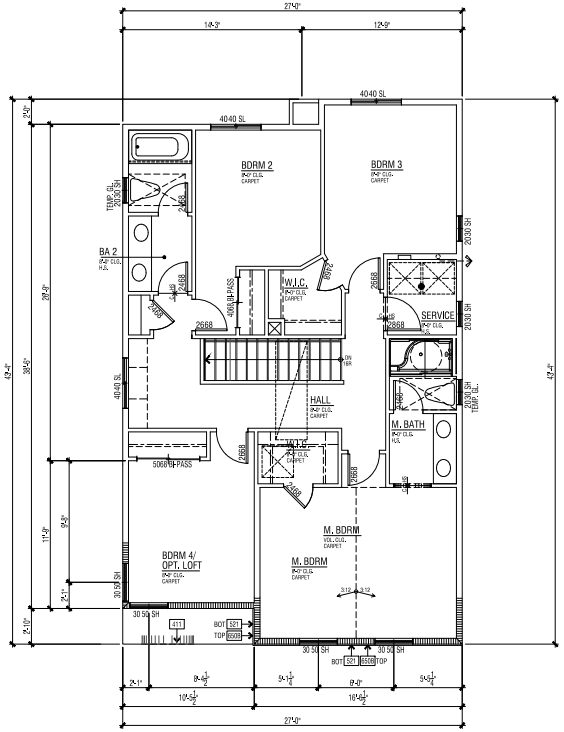
REVISIONS

NO.	DATE	DESCRIPTION

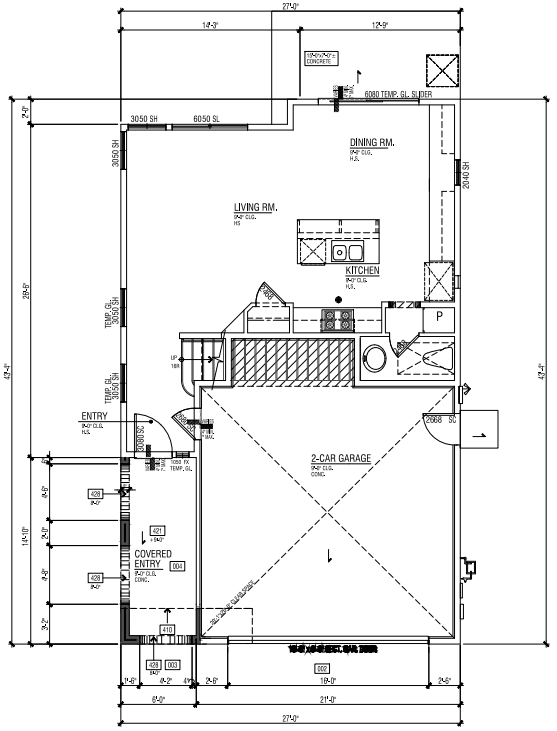
PLAN 1660B EXTERIOR ELEVATIONS & ROOF PLAN

PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	215
CAD FILE NAME:	
DATE:	06-18-20
SHEET	A1.6

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



UPPER FLOOR PLAN



LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
421	STUCCO CEILING HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT, HEIGHT PER PLAN
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (R4) ICC# ESR-1194 STUCCO TYPE I OR 11 PORTLAND CEMENT OVER SRAT ® GUARD ESR-1566 BY STARR A FOAM.
6508	"FIBER CEMENT LAP SIDING - 5/16" THICK "HARDI PLANK" (OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) ICC-ES NER-405

ADDENDA FLOOR PLAN NOTES

NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN.

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

SPN #	.
FLOOR AREA TABLE	PLAN 1660C
LOWER FLOOR	589 SQ. FT.
UPPER FLOOR	1073 SQ. FT.
TOTAL	1661 SQ. FT.
GARAGE	466 SQ. FT.
COVERED ENTRY/PORCH	89 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'- 0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT No. C 12920 REN 4-30-21 STATE OF CALIFORNIA

WILSON HOMES

NEW ELEV8IONS - PLAN 1660

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PLAN 1660C
ADDENDA PLANS

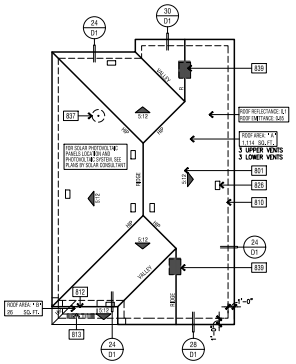
PROJECT MANAGER :	MM
DESIGNER :	AM
DRAWN BY :	-
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	06-18-2020
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	2018077.07
CAD FILE NAME :	

DATE: 06-18-20

A1.7

216

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020



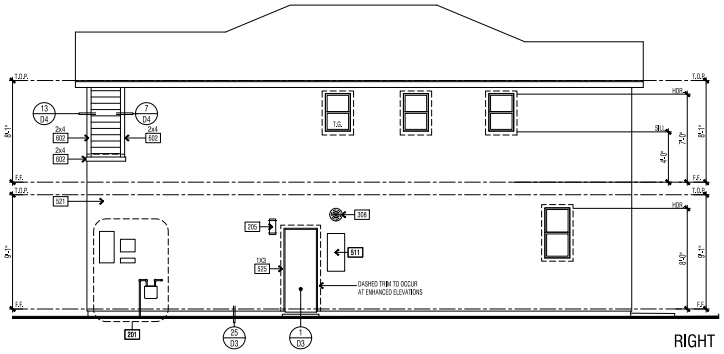
ATTIC VENTILATION CALCULATIONS							PLAN 7C
ROOF ATTIC AREA	A	1114	SQ. FT.	CALCULATION FACTOR:			1/300
		160416	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	530	SQ. IN	TOTAL PROVIDED:	594	SQ. IN	
MIN. VENTILATION REQUIRED:	HIGH	265	SQ. IN	TOTAL HIGH PROVI	297	SQ. IN	
MIN. VENTILATION REQUIRED:	LOW	265	SQ. IN	TOTAL LOW PROVI	297	SQ. IN	

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	3	297 SQ. IN
				TOTAL PROVIDED	297 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	3	297 SQ. IN
				TOTAL PROVIDED	297 SQ. IN

ROOF ATTIC AREA	B	26	SQ. FT.	CALCULATION FACTOR:	1/150
		3744	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	25	SQ. IN	TOTAL PROVIDED:	99 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1	99 SQ. IN
				TOTAL PROVIDED	99 SQ. IN



RIGHT

ELEVATION KEY NOTES	
Name	NOTE
010	CONCRETE PATIO - SEE PER PLAN (BY OTHERS)
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL: 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (02=ANNL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO MOHL. SEE PER ELEVATION - SLOPE SILL 4" PER FT. MINIMUM
521	STUCCO - OMEGA DIAMOND WALL ONE COAT STUCCO (RM) ICC-# ESR-1104 STUCCO TYPE 1 OR 11 PORTLAND CEMENT OVER GRAT 'n' GUARD ESR-1366 BY "GRAT R FOAM".
533	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
592	OVERHEAD AWNING - SIZE AND STYLE PER ELEVATION
602	WOOD TRIM (S) - SIZE PER ELEVATION
6508	FIBER CEMENT LAP SIDING - 5/16" THICK "HARDIPLANK" (OR EQUIVALENT), "FINISH: SELECT CEDARMILL, EXPOSURE: 8" INSTALLATION PER MANUFACTURERS INSTRUCTIONS) ICC-ES "NUM-495
701	GLT FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS, THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1405.13.2

NOTE: 2 LAYERS OF GF GRADE 'D' BUILDING PAPER IS REQUIRED TO BE INSTALLED OVER ROOF WOOD SHEATHING. 2019 CRC R703.8.3

FINISHED GRADE VARIES. SEE CIVIL ENGINEERS PLANS FOR FINAL GRADE AND SITE DRAINAGE.

ROOF PLAN

SCALE: 1/8" = 1'-0"

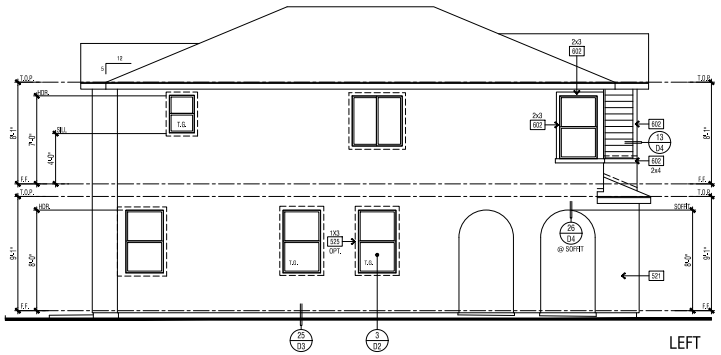
ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL (U.N.O.)	RAKE - (U.N.O.)	EAVE - (U.N.O.)	OVERHANG DIM. - (U.N.O.) EAVE	RAKE
CONCRETE 'FLAT' TILE *EAGLE ROOFING* ICC# ESR-1900	1/01.1	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

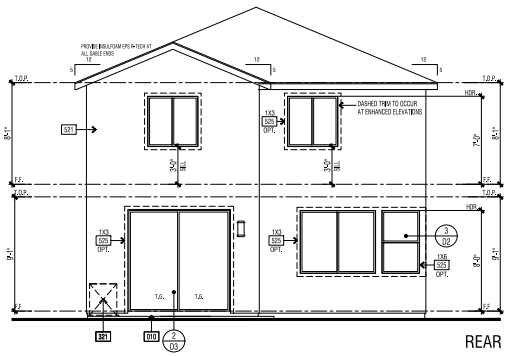
1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE, EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
   - IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING
   - NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE, WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION OF MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OF HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.
4. CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 ½:12 OR GREATER. FOR ROOF SLOPES FROM 2 ½: 12 TO 4:12, DOUBLE UNDERLAYMENT APPLICATION AS REQUIRED IN ACCORDANCE WITH R905.3.3, (R905.3.2 CRC)
5. WOOD BATTENS ARE REQUIRED ON CONCRETE AND CLAY TILE ROOFS WHERE SLOPES EXCEED 7:12 PER TILE ROOFING INSTITUTE INSTALLATION MANUAL.
6. WHEN ROOF WITH DIFFERENT PITCHES INTERSECT, THE FRAMER OR TRUSS MANUFACTURER MUST ADD A HEEL TO THE STEEPER PITCH TO ALIGN WITH THE EAVE OF THE LOWER PITCH.

SOLAR PHOTOVOLTAIC POWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH C.R.C. SECTION 324.3.1 THROUGH R324.7.2.7 AND THE CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, REFER TO SOLAR CONSULTANT PLANS UNDER SEPARATE SUBMITTAL FOR SOLAR PHOTOVOLTAIC POWER SYSTEM DESIGN, PANEL LOCATIONS AND SIZES, AND ALL OTHER DESIGN REQUIREMENTS. NOTE THAT NO MECHANICAL/PLUMBING EXHAUST VENTS, ROOF ATTIC VENTS WILL BE PERMITTED WITHIN THE SOLAR ZONE AREA, REF CA ENERGY CODE SECTION 110.10 AND CBC SECTION 3111.2.1

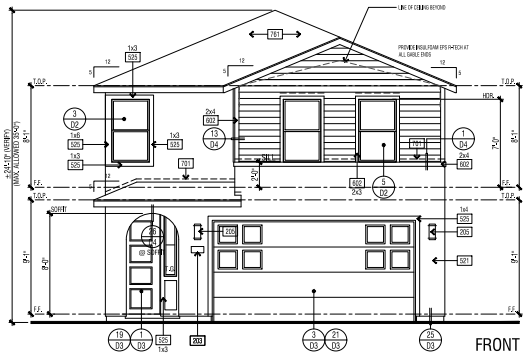
ROOF PLAN KEY NOTES	
Name	NOTE
001	ROOFING - CONCRETE - "FLAT" TILE BY EAGLE ROOFING ICC# ESR 1900
010	LINE OF WALL BELOW
012	STUCCO CEILING
013	STUCCO SOFFIT
026	ROOF VENT - OMARK "XL SERIES" CLOAKED VENT (ICC # NER-9909A)
037	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
039	MIN. 22"X30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

WILSON HOMES

NEW ELEV8IONS - PLAN 1660

CLOVIS, CALIFORNIA

WILSON HOMES
FRESNO, CALIFORNIA

TRACT NUMBER: 6168/6202
PROJECT TYPE: S.F.D.

2018077.07 - FIRST BUILDING DEPARTMENT SUBMITTAL SET 06-18-2020

©2020 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR ASSIGNMENT TO A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

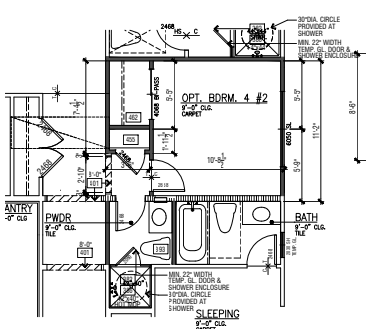
DO NOT SCALE PLANS

REVISIONS

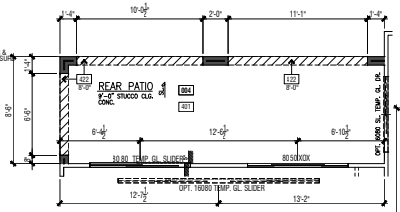
NO.	DATE	DESCRIPTION

PLAN 1660C EXTERIOR ELEVATIONS & ROOF PLAN

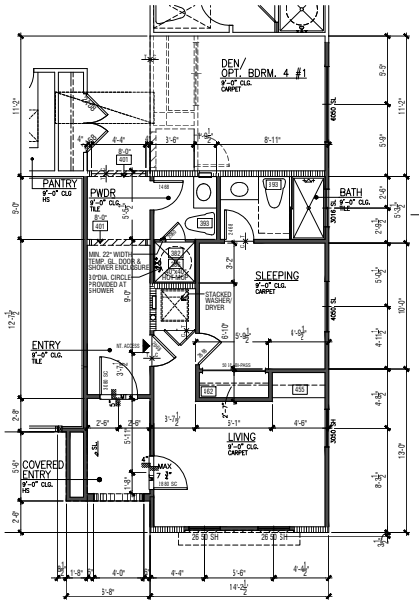
PROJECT MANAGER:	MM
DESIGNER:	AM
DRAWN BY:	-
REVIEWED BY:	-
1ST BLDG. DEPT. SUBMITTAL:	06-18-2020
ISSUED FOR CONSTRUCTION:	
JOB NUMBER:	217
CAD FILE NAME:	
DATE:	06-18-20
SHEET	A1.8



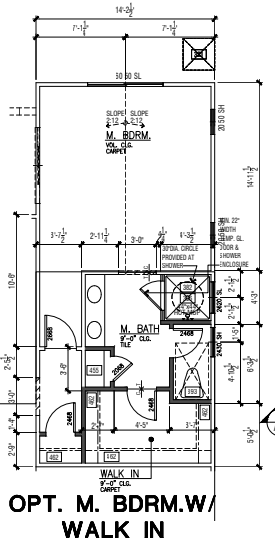
OPT. BDRM 4 #2



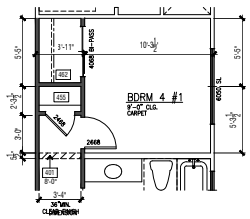
OPT. REAR PATIO



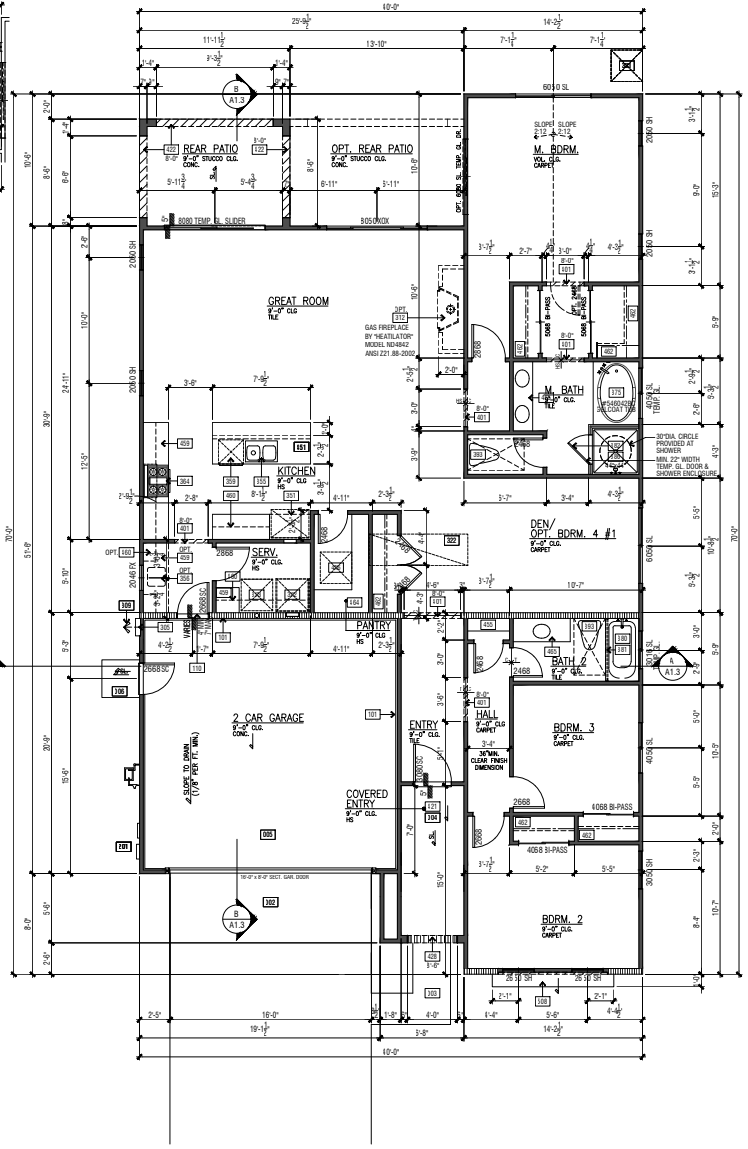
OPT. MULTI-GENERAL SUITE



OPT. M. BDRM.W/ WALK IN



OPT. BDRM. 4 #1



FLOOR PLAN

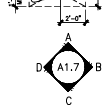
FLOOR PLAN NOTES

Name	NOTE
001	GALVANIZED STEEL PIPE BOLLARD W/ CONCRETE FILL (SEE DETAIL 15/D5.1)
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6, TABLE 302.6
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE R.R. CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF-LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANK LESS WATER HEATER. INSTALLATION PER MANUFACTURES INSTRUCTIONS
306	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AMAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
309	TEMPERATURE AND PRESSURE RELIEF VALVE: DISCHARGE LINE TO THE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSOR LOCATION
322	FORCED AIR UNIT (FAU) IN ATTIC ON 8' X 12' PLATFORM
336	3" DIA. G.I. DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
356	VEGETABLE SINK
359	DISHWASHER
364	COOKTOP & EXHAUST HOOD WITH FAN LIGHT (EXHAUST VENT TO OUTSIDE)
372	WASHER SPACE WITH RECESSED WATER BOX AND DRAIN
373	DRYER SPACE
374	SHELF ABOVE - OPT. CABINETS (SEE INTERIOR ELEV.)
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER
381	CURTAIN ROD
382	SHATTER PROOF SHOWER DOOR/ENCLOSURE
386	SHOWER - PREFABRICATED STALL - 44"X44"
387	SHOWER - HOT MOP - SIZE PER PLAN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 24"x30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT (S)/ DROPPED CEILING(S): HEIGHT PER PLAN
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.0(q)1. ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
427	STUCCO SOFFIT OVER WATERPROOFED STUCCO SHELF - SLOPE FRAMING FOR DRAINAGE (1/4" PER FOOT MINIMUM)
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X PONY WALL - SIZE & HEIGHT PER PLAN
443	2X CRIPPLE WALL - SIZE PER PLAN
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
454	DESK
455	LINEN
457	LINEN (LOW ONLY)
458	LINEN (UPPER ONLY)
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
463	DOUBLE SHELF & POLE
464	WIRE SHELF/SHELVES
465	VANITY
508	WATERPROOF STUCCO SHELF - SLOPE 1/4" PER FOOT

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R303.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 □GBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 1870A
LOWER FLOOR PLAN	1870 SQ. FT.
TOTAL	1,870 SQ. FT.
GARAGE	418 SQ. FT.
COVERED ENTRY	64 SQ. FT.
REAR PATIO	102 SQ. FT.
OPT. EXPANDED REAR PATIO	219 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4-30-19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 1870

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANYONE OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

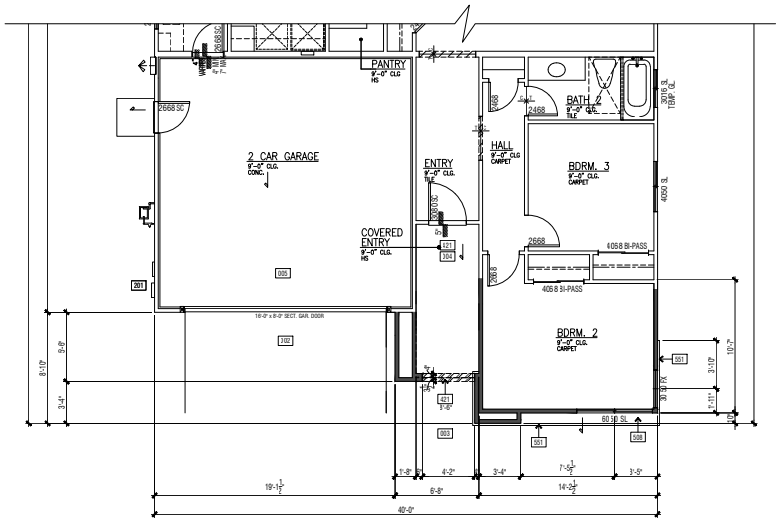
REVISIONS

NO.	DATE	DESCRIPTION

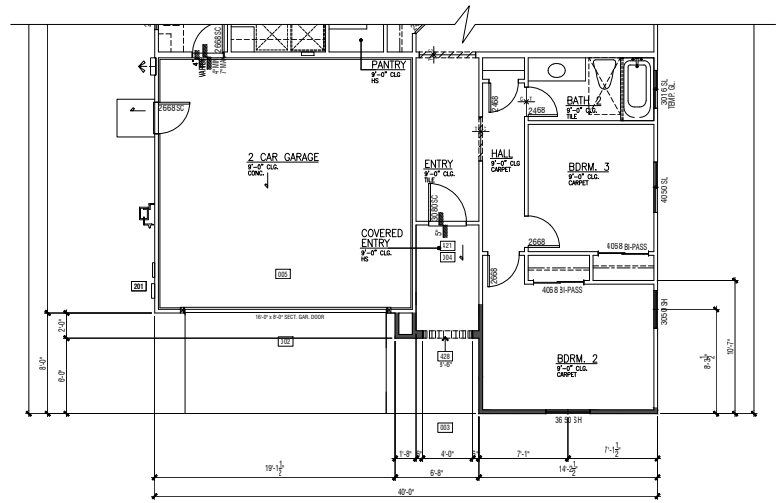
PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	05-21-18
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	218
CAD FILE NAME :	
DATE:	05-21-18
	A1.0

PLAN 1870A - CONTEMPORARY SPANISH

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



PARTIAL FLOOR PLAN 1870B - MODERN



PARTIAL FLOOR PLAN 1870C - PROGRESSIVE NAPA

FLOOR PLAN KEY NOTES	
Name	NOTE
102	CONCRETE DRIVE (BY OTHERS)
103	CONCRETE WALK (BY OTHERS)
104	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
105	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
151	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY 'EL DORADO STONE' ECC-ES-ER-2068
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT

ADDENDA FLOOR PLAN NOTES
1/NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN
1/NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.
1/REFER TO BASE PLAN SHEET A2.0 FOR ADDITIONAL NOTES AND DIMENSIONS.

FLOOR AREA TABLE	PLAN 1870B
LOWER FLOOR PLAN	1870 SQ. FT.
TOTAL	1,870 SQ. FT.
GARAGE	418 SQ. FT.
COVERED ENTRY	64 SQ. FT.
REAR PATIO	102 SQ. FT.
OPT. EXPANDED REAR PATIO	219 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN

FLOOR AREA TABLE	PLAN 1870C
LOWER FLOOR PLAN	1870 SQ. FT.
TOTAL	1,870 SQ. FT.
GARAGE	418 SQ. FT.
COVERED ENTRY	46 SQ. FT.
REAR PATIO	102 SQ. FT.
OPT. EXPANDED REAR PATIO	219 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

A
D A1.7 B
C

INTERIOR ELEVATION KEY

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 1870

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

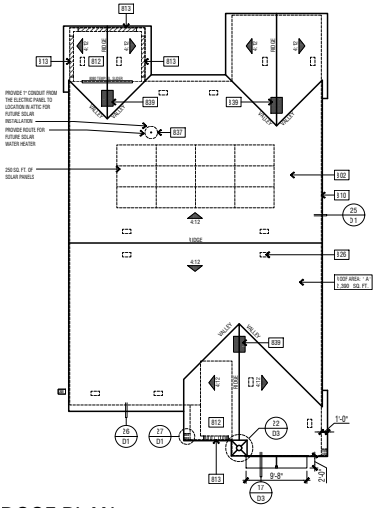
PLAN 1870 - PARTIAL FLOOR PLANS B & C

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	05-21-18
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

219

A1.1

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH					
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	X ARGE - J ALO.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC# ESR 1900	1 / 01	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2: THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

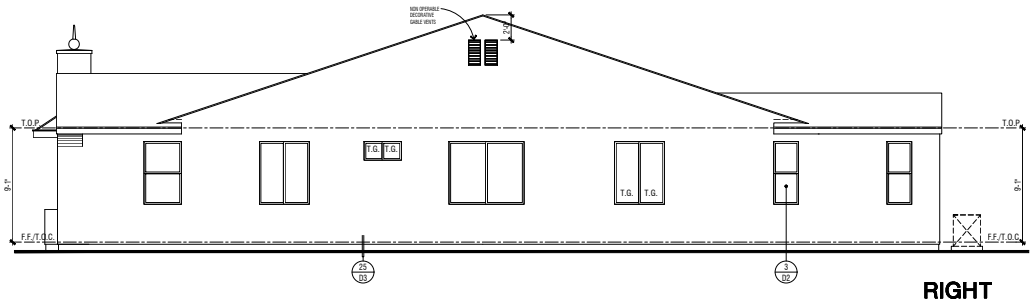
ROOF PLAN KEY NOTES

Name	NOTE
002	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
010	LINE OF WALL BELOW
012	STUCCO CEILING
013	STUCCO SOFFIT
026	ROOF VENT - CHAGRIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
037	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
039	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

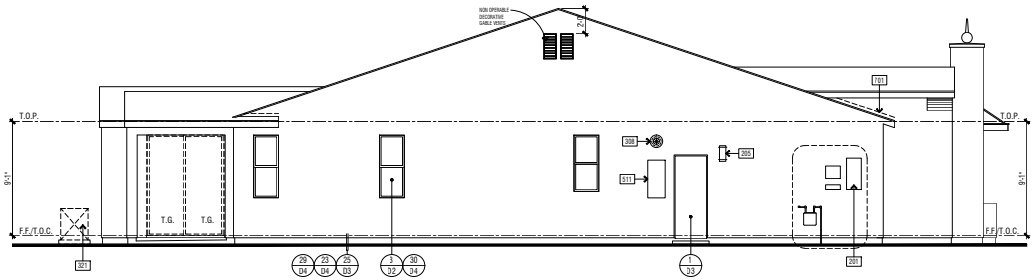
ROOF ATTIC AREA	A	2462	SQ. FT.	CALCULATION FACTOR:		1/300
		354528	SQ. IN			
MIN. VENTILATION REQUIRED:	TOTAL	1182	SQ. IN	TOTAL PROVIDED:	1365	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	591	SQ. IN	TOTAL HIGH PROVID	683	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	591	SQ. IN	TOTAL LOW PROVIDI	683	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA			QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	7	683	SQ. IN
					TOTAL PROVIDED:	683	SQ. IN

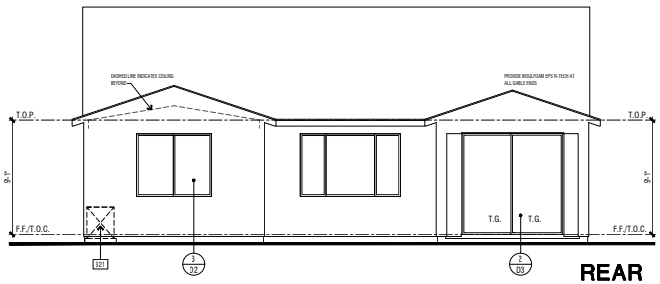
LOW VENTILATION METHOD	SIZE	FREE AREA			QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	7	683	SQ. IN
					TOTAL PROVIDED:	683	SQ. IN



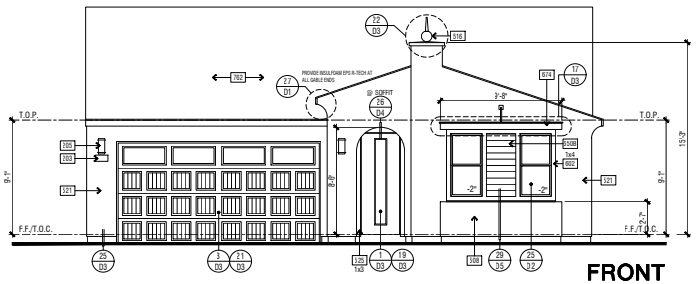
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

Name	NOTE
001	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
003	\ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
005	\CCENT EXTERIOR WALL LIGHT
008	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
021	\IR CONDITIONING CONDENSER LOCATION
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	2" STUCCO RECESS. SIZE PER ELEVATION. SLOPE SILL 1/4" PER FT. MINIMUM
516	DECORATIVE FOAM ACCENT - SEE DETAIL 22/S9
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
602	AVOID TRIM/S3 - SIZE PER ELEVATION
530B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT \EDARMILL. EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
574	DECORATIVE METAL WINDOW SHADE
701	S1.1 FLASHING
702	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT JEFFREY M. HEDMAN REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 1870A - CONTEMPORARY SPANISH - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 1870

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

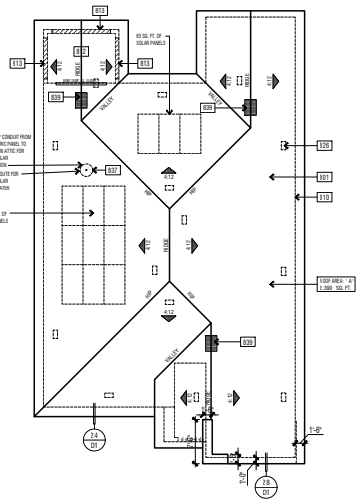
© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	05-21-18
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	220
CAD FILE NAME :	
DATE:	05-21-18
	A1.4

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	3 ARGE - 3 .N.O.	2VERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3 / D1	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET.
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

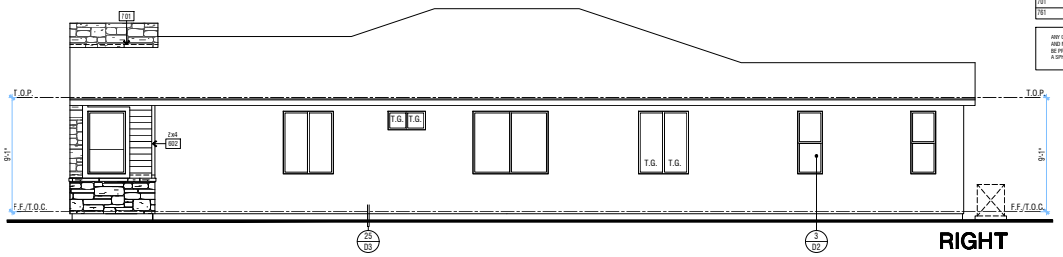
ROOF PLAN KEY NOTES

tome	VOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	..INE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	'I ODP VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9955A)
837	"PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

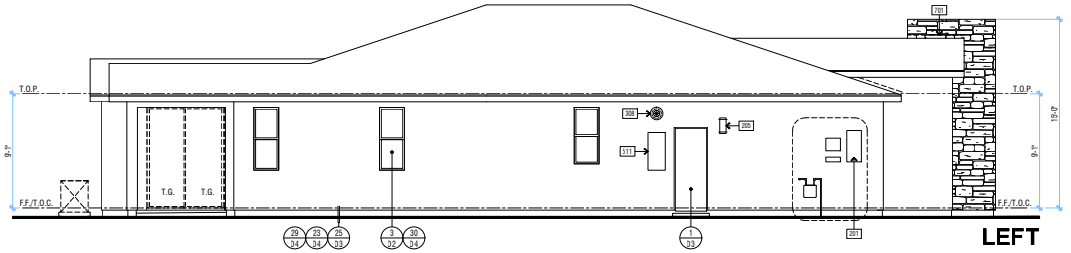
ROOF ATTIC AREA				CALCULATION FACTOR:	1/300
	A	2489	SQ. FT.		
		358416	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	1195	SQ. IN	TOTAL PROVIDED:	1383 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	597	SQ. IN	TOTAL HIGH PROVID	691 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	597	SQ. IN	TOTAL LOW PROVID	691 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99	SQ. IN X	7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN

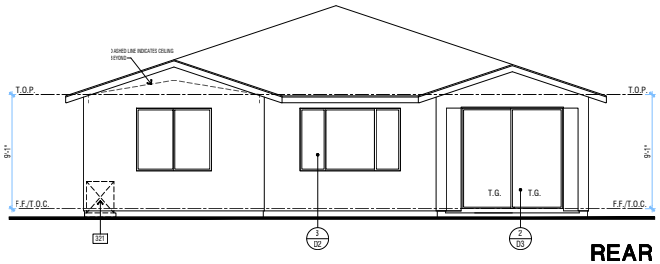
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99	SQ. IN X	7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN



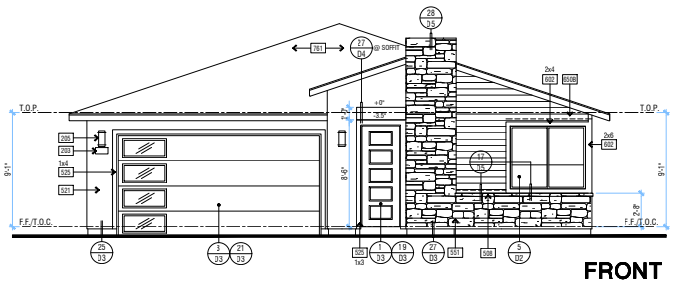
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
506	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY 'EL DORADO STONE' ICC-ES ER-3568
602	WOOD TRIM(S) - SIZE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT, ENGAGE SELECT CEDARMILL, EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2019 CBC 1403.13.2

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT — C-27966 — REN 4.30.19 — STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 1870B MODERN - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 1870

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

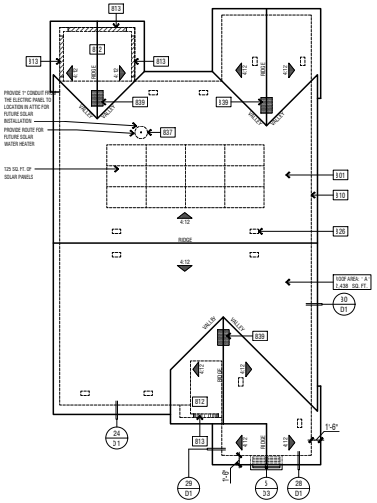
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	05-21-18
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

221

A1.5

2013052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	1 STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	2 OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/01	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET.
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

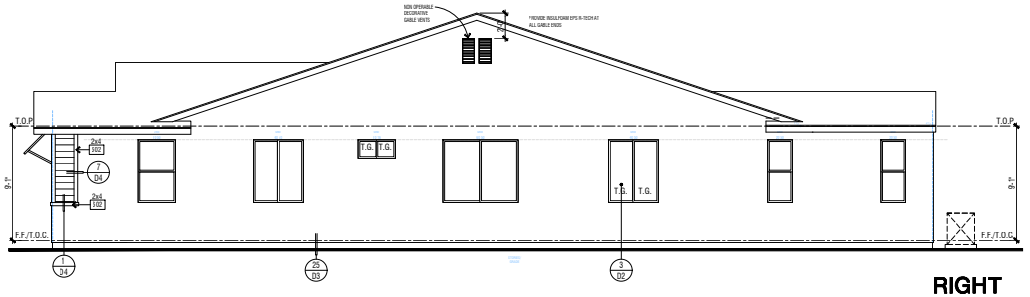
ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
814	WOOD SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	1-ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
827	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

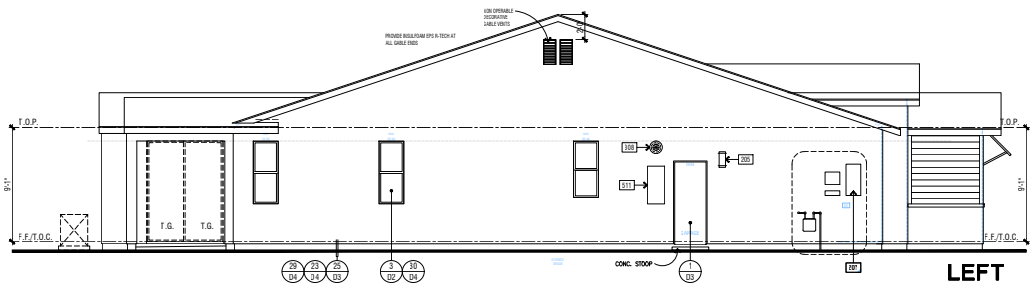
ROOF ATTIC AREA	A	2438 SQ. FT.		CALCULATION FACTOR:		1/300
		351072 SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	1170 SQ. IN		TOTAL PROVIDED:	1185	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	585 SQ. IN		TOTAL HIGH PROVID	593	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	585 SQ. IN		TOTAL LOW PROVID	593	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN	X 6		593	SQ. IN
				TOTAL PROVIDED:		593	SQ. IN

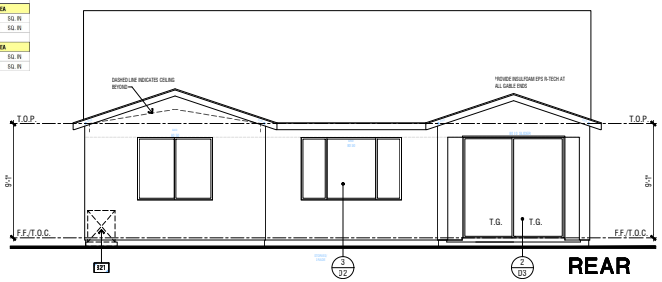
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN	X 6		593	SQ. IN
				TOTAL PROVIDED:		593	SQ. IN



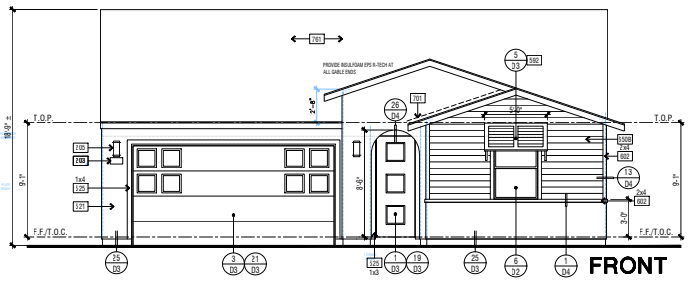
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO NICHE. SIZE PER ELEVATION - SLOPE SILL 2" PER FT. MINIMUM
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
592	OVERHEAD SHUTTER - SIZE AND STYLE PER ELEVATION
602	WOOD TRIM(S) - SIZE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
701	G.I. FLASHING
781	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT BEN A. NEZHAD C-29811 REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 1870C PROGRESSIVE NAPA - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 1870
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	05-21-18
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	222
CAD FILE NAME :	
DATE:	05-21-18
	A1.6

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - J.N.O.	RAKE - J.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/01	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

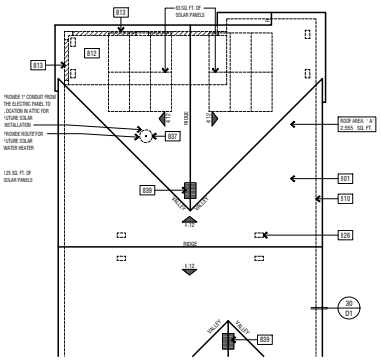
ROOF PLAN KEY NOTES

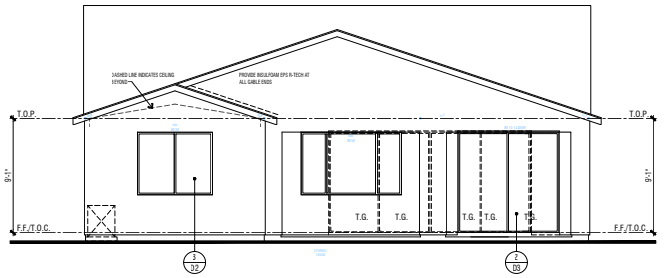
Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
814	WOOD SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	*PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

ROOF ATTIC AREA		A	2555	SQ. FT.	CALCULATION FACTOR:		1/300	
			367920	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL		1226	SQ. IN	TOTAL PROVIDED:		1383	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH		613	SQ. IN	TOTAL HIGH PROVID		691	SQ. IN
MIN. VENTILATION REQUIRED:	LOW		535	SQ. IN	TOTAL LOW PROVIDI		691	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -	-	99	SQ. IN X	7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -	-	99	SQ. IN X	7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN





OPT. REAR AT LARGE REAR PATIO '1870 C'

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - J.N.O.	RAKE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/01	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

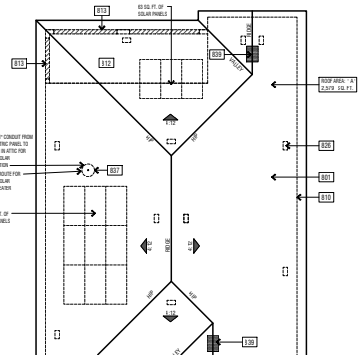
ROOF PLAN KEY NOTES

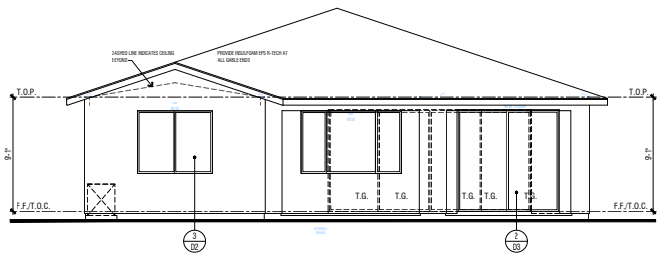
Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

ROOF ATTIC AREA		A	2579	SQ. FT.	CALCULATION FACTOR:		1/300	
			371376	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL		1238	SQ. IN	TOTAL PROVIDED:		1383	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH		619	SQ. IN	TOTAL HIGH PROVID		691	SQ. IN
MIN. VENTILATION REQUIRED:	LOW		547	SQ. IN	TOTAL LOW PROVIDI		691	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -	-	99	SQ. IN X	7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -	-	99	SQ. IN X	7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN





OPT. REAR AT LARGE REAR PATIO '1870 B'

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - J.N.O.	RAKE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC# ESR 1900	1/01	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

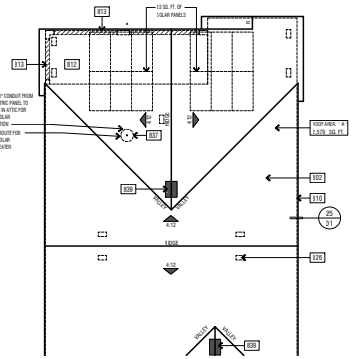
ROOF PLAN KEY NOTES

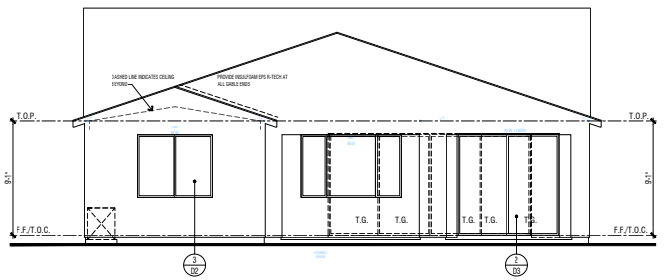
Name	NOTE
802	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA		A	2579	SQ. FT.	CALCULATION FACTOR:		1/300	
			371376	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL		1238	SQ. IN	TOTAL PROVIDED:		1365	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH		619	SQ. IN	TOTAL HIGH PROVID		683	SQ. IN
MIN. VENTILATION REQUIRED:	LOW		619	SQ. IN	TOTAL LOW PROVIDI		683	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	7	683 SQ. IN
				TOTAL PROVIDED:	683 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	7	683 SQ. IN
				TOTAL PROVIDED:	683 SQ. IN





OPT. REAR AT LARGE REAR PATIO '1870 A'

SCALE: 1/4" = 1'-0"

OPTIONAL REAR ELEVATION AT LARGE REAR PATIO AND ROOF PLANS FOR 1870 A, B. C

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 1870

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

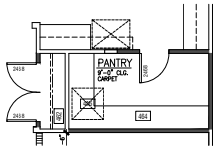
DO NOT SCALE PLANS

REVISIONS

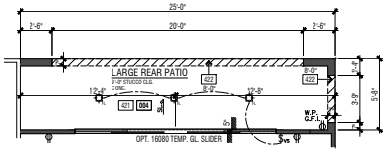
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	05-21-18
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	223
CAD FILE NAME :	
DATE:	05-21-18
SHEET	A1.6.1

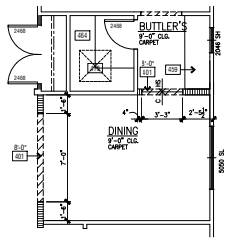
20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



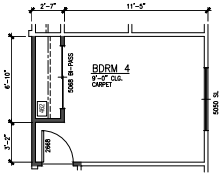
OPT. PANTRY



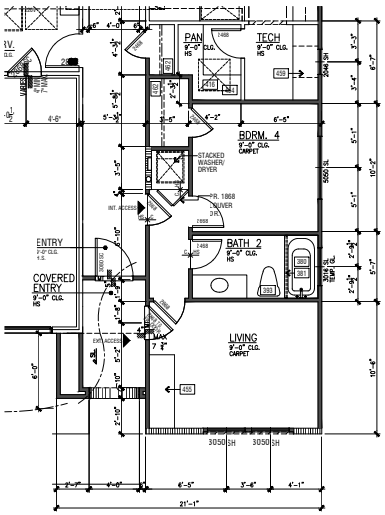
OPT. LARGE REAR PATIO



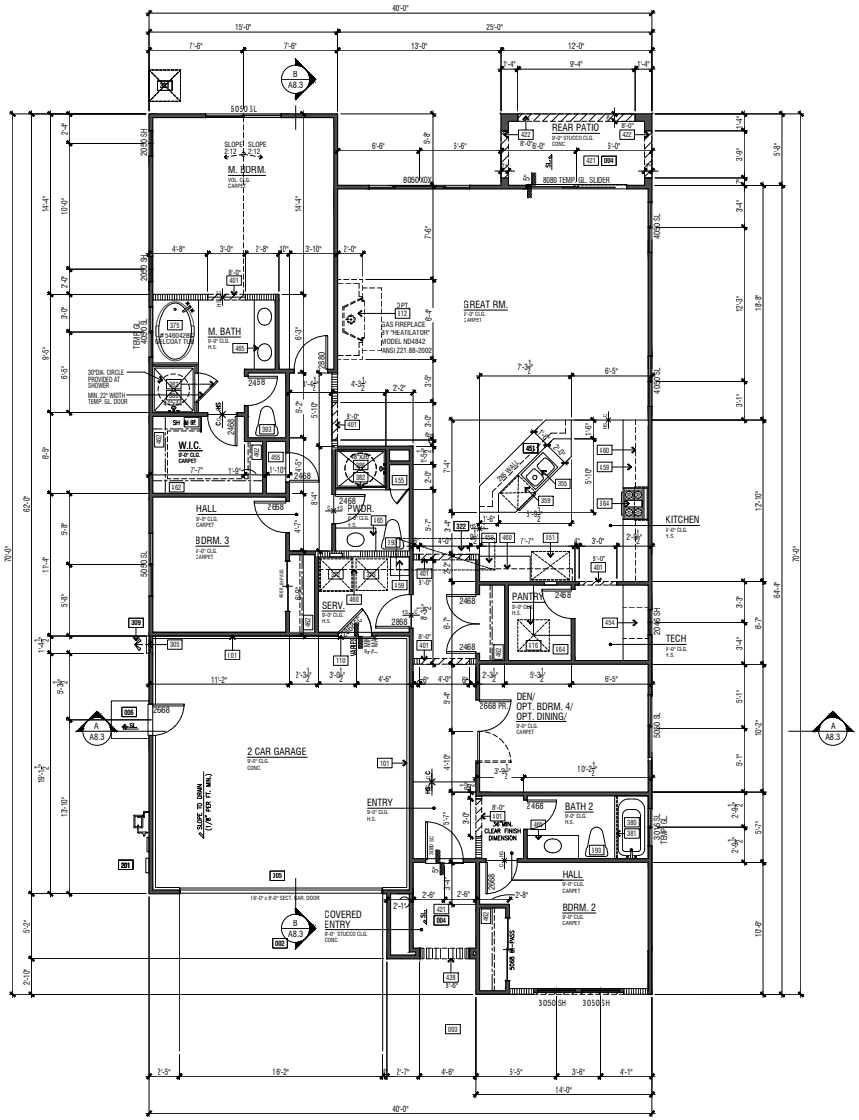
OPT. DINING RM.



OPT. BDRM. 4 #1



OPT. MULTI-GENERAL SUITE



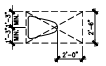
FLOOR PLAN

FLOOR PLAN KEY NOTES	
Name	NOTE
001	GALVANIZED STEEL PIPE BOLLARD W/ CONCRETE FILL (SEE DETAIL 15/D5.1)
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6, TABLE 302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANK LESS WATER HEATER. INSTALLATION PER MANUFACTURE'S INSTRUCTIONS
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
309	TEMPERATURE AND PRESSURE RELIEF VALVE: DISCHARGE LINE TO THE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) IN ATTIC OR 6' X 12' PLATFORM
336	5" DIA. G.I. DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
359	DISHWASHER
364	COOKTOP & EXHAUST HOOD WITH FAN LIGHT (EXHAUST VENT TO OUTSIDE)
372	WASHER SPACE WITH RECESSED WATER BOX AND DRAIN
373	DRYER SPACE
374	SHELF ABOVE - OPT. CABINETS (SEE INTERIOR ELEV.)
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER
381	CURTAIN ROD
382	SHATTER PROOF SHOWER DOOR/ENCLOSURE
386	SHOWER - PREFABRICATED STALL
387	SHOWER - HOT MOP - SIZE PER PLAN
393	TOILET - PROVIDE MINIMUM 24"x30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.0(q)1. ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X PONY WALL - SIZE & HEIGHT PER PLAN
443	2X CRIPPLE WALL - SIZE PER PLAN
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
454	DESK
455	LINEN
457	LINEN (LOW ONLY)
458	LINEN (UPPER ONLY)
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
463	DOUBLE SHELF & POLE
464	WIRE SHELF/SHELVES
465	VANITY

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R303.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 CGBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 2013A
LOWER FLOOR PLAN	2013 SQ. FT.
TOTAL	2,013 SQ. FT.
GARAGE	425 SQ. FT.
COVERED ENTRY	48 SQ. FT.
REAR PATIO	68 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2013
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

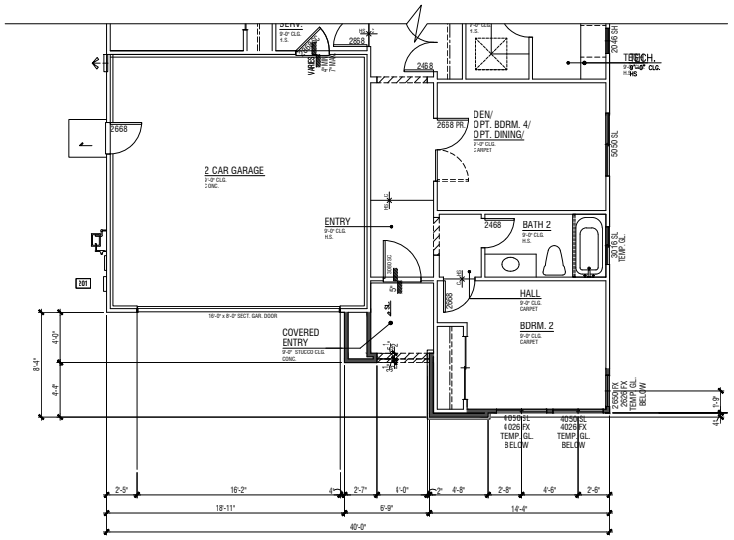
REVISIONS

NO.	DATE	DESCRIPTION

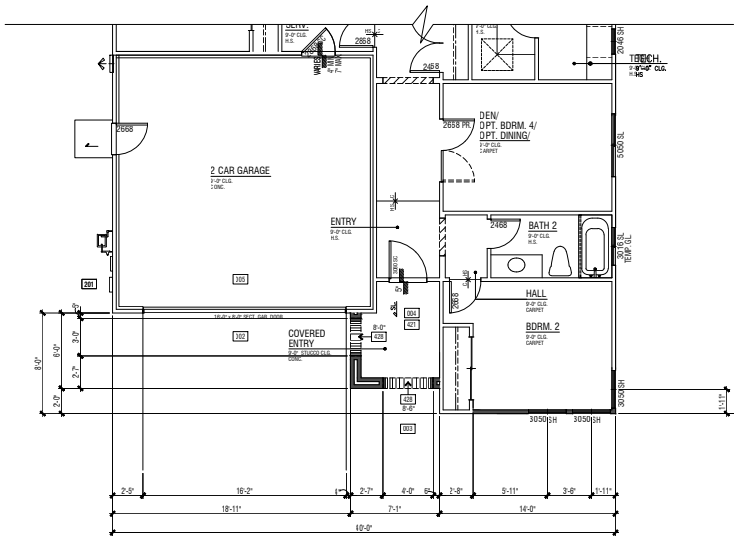
PLAN 2013A - CONTEMPORARY SPANISH

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	224
CAD FILE NAME :	
DATE:	05-21-18
	A1.0

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05/21/18



PARTIAL FLOOR PLAN 2013B - MODERN



PARTIAL FLOOR PLAN 2013C - PROGRESSIVE NAPA

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY 'EL DORADO STONE' ICC-ES ER-3588

ADDENDA FLOOR PLAN NOTES
NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN
NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.
REFER TO BASE PLAN SHEET A2.1 FOR ADDITIONAL NOTES AND DIMENSIONS.

FLOOR AREA TABLE	PLAN 2013B
LOWER FLOOR PLAN	2013 SQ. FT.
TOTAL	2,013 SQ. FT.
GARAGE	425 SQ. FT.
COVERED ENTRY	40 SQ. FT.
REAR PATIO	68 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT: HEIGHT PER PLAN

FLOOR AREA TABLE	PLAN 2013C
LOWER FLOOR PLAN	2013 SQ. FT.
TOTAL	2,013 SQ. FT.
GARAGE	425 SQ. FT.
COVERED ENTRY	54 SQ. FT.
REAR PATIO	68 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2013

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANYONE OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

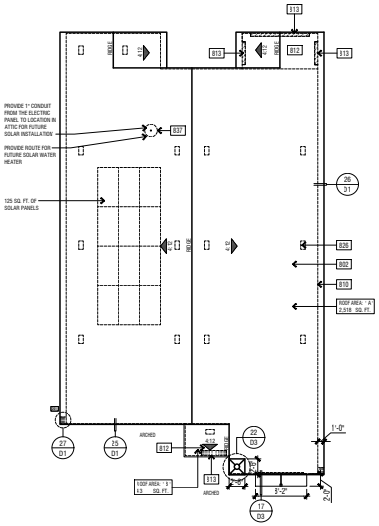
PLAN 2013 - PARTIAL FLOOR PLANS B & C

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

225

A1.1

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05/21/18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC-# ESR 1900	1/01	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

ROOF PLAN KEY NOTES

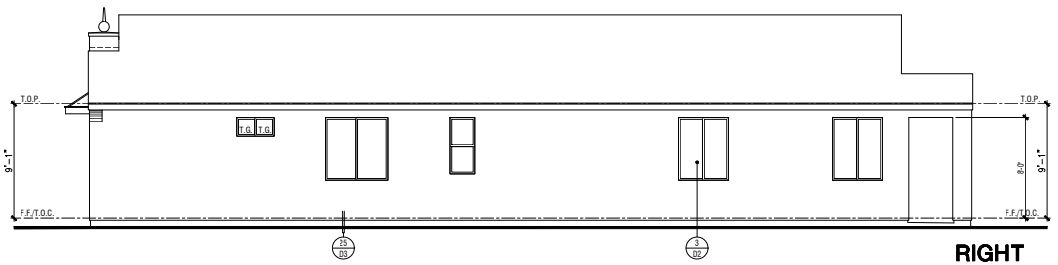
Name	NOTE
802	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC-# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - (O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9950A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA	A	2518 SQ. FT.	CALCULATION FACTOR:		1/300	
		362592 SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	1209 SQ. IN	TOTAL PROVIDED:		1365	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	604 SQ. IN	TOTAL HIGH PROVID		683	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	604 SQ. IN	TOTAL LOW PROVID		683	SQ. IN

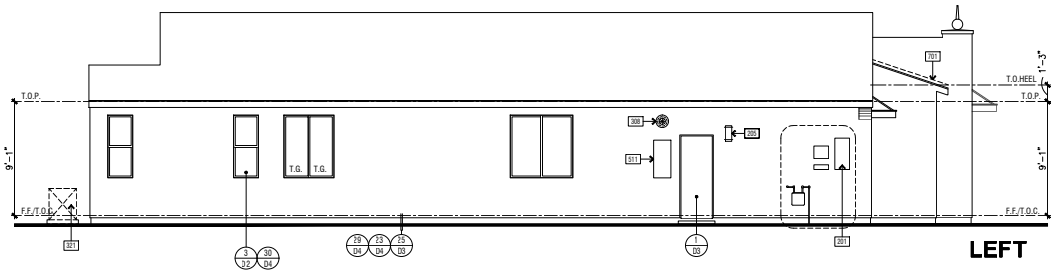
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X 7		683	SQ. IN
				TOTAL PROVIDED:		683	SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X 7		683	SQ. IN
				TOTAL PROVIDED:		683	SQ. IN
ROOF ATTIC AREA	B	43 SQ. FT.		CALCULATION FACTOR:		1/300	
		6192 SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	21 SQ. IN		TOTAL PROVIDED:		98	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	10 SQ. IN		TOTAL HIGH PROVID		98	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	10 SQ. IN		TOTAL LOW PROVID		0	SQ. IN

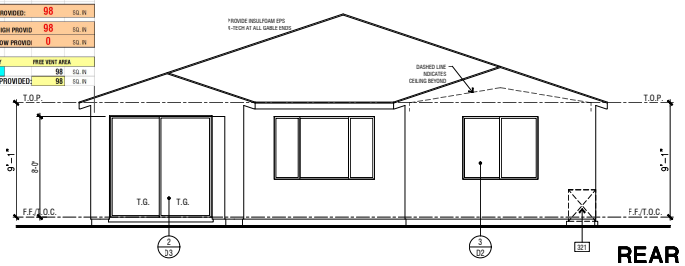
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X 1		98	SQ. IN
				TOTAL PROVIDED:		98	SQ. IN



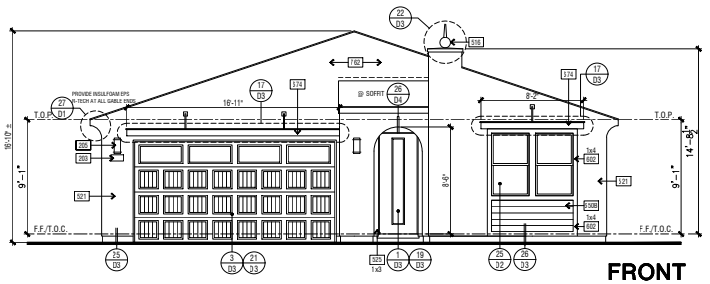
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	A/R CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	2" STUCCO RECESS. SIZE PER ELEVATION. SLOPE SILL 1/4" PER FT. MINIMUM
516	DECORATIVE FOAM ACCENT - SEE DETAIL "I/D"
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND A/ALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. RINISH: SELECT CEDARMILL EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
762	ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC-# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE INTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT WILLIAM HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2013A - CONTEMPORARY SPANISH - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2013
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

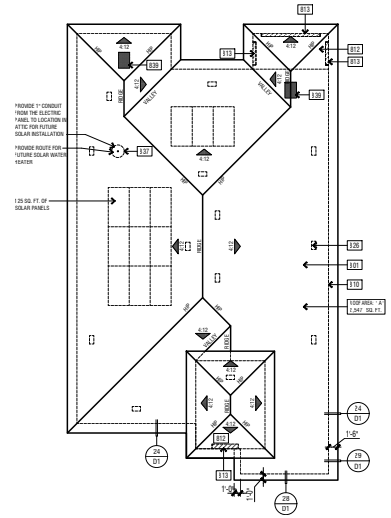
REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	226
CAD FILE NAME :	
DATE:	05-21-18

A1.4

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05/21/18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	B	ELEVATION STYLE:	MODERN			
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/J1	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

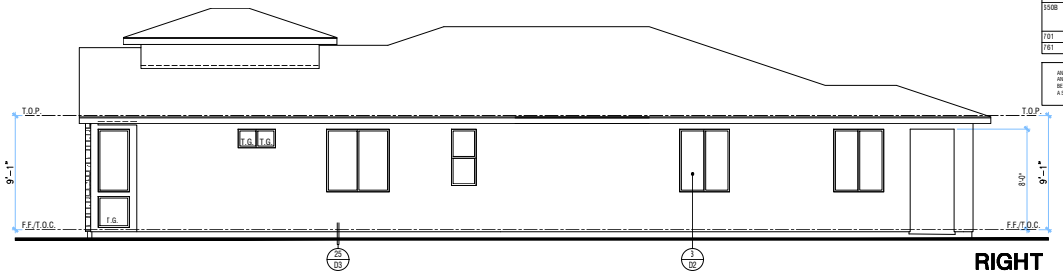
ROOF PLAN KEY NOTES

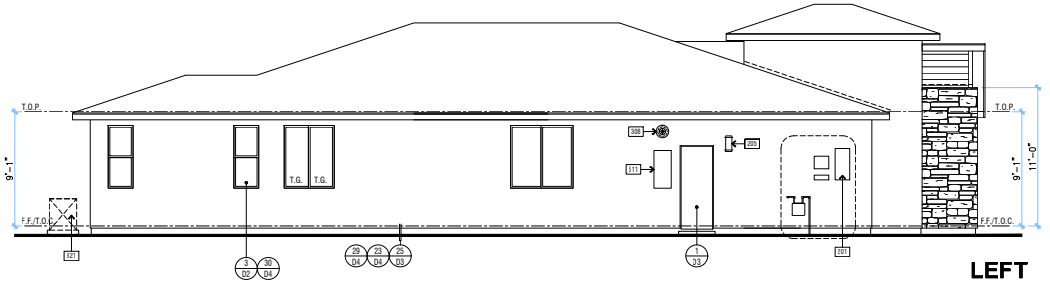
Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

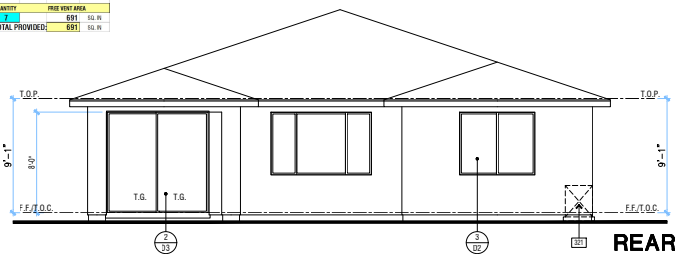
ROOF ATTIC AREA				CALCULATION FACTOR:	1/300
	A	2547	SQ. FT.		
		366768	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	1223	SQ. IN	TOTAL PROVIDED:	1383 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	611	SQ. IN	TOTAL HIGH PROVID	691 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	611	SQ. IN	TOTAL LOW PROVIDI	691 SQ. IN

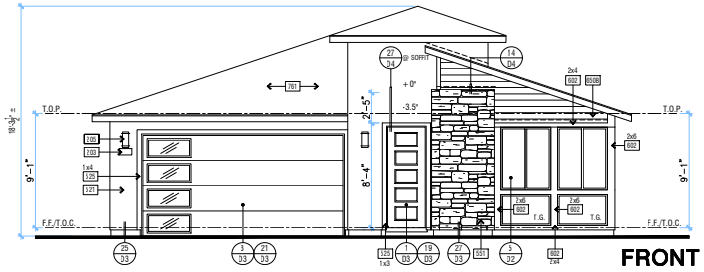
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN	X 7		691 SQ. IN
				TOTAL PROVIDED:		691 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN	X 7		691 SQ. IN
				TOTAL PROVIDED:		691 SQ. IN









SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
311	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
321	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
325	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
351	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. 3Y EL DORADO STONE ICC-ES ER-3568
502	WOOD TRIM(S) - SIZE PER ELEVATION
550B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CRC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

WILSON HOMES

SFD

PLAN 2013B MODERN - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2013

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

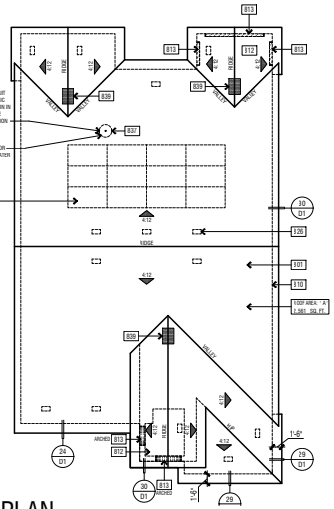
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

227

A1.5

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05/21/18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	1.ARGE - J.N.O.	OVERHANG DIM. - U.N.O. SIDE	RAKE
CONCRETE 'FLAT' TILE ** EAGLE ROOFING ICC# ESR 1900	3/01	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATION AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

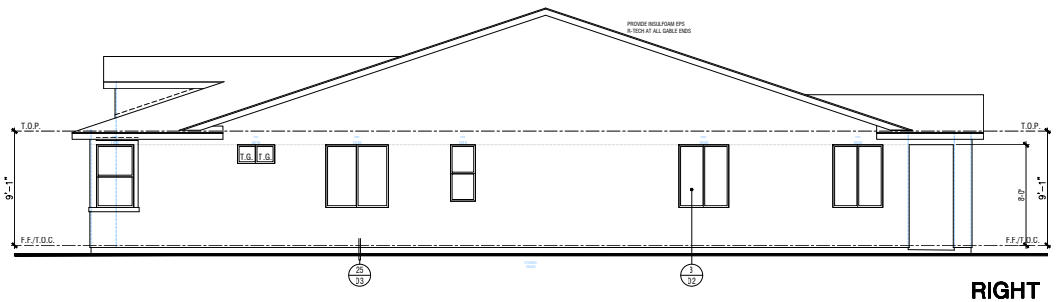
ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
814	WOOD SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

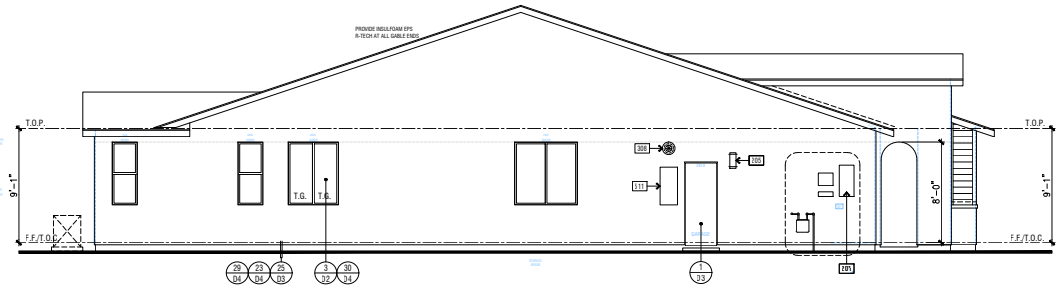
ROOF ATTIC AREA	A	2561	SQ. FT	CALCULATION FACTOR:	1/300
		368784	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	1229	SQ. IN	TOTAL PROVIDED:	1383 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	615	SQ. IN	TOTAL HIGH PROVID	691 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	615	SQ. IN	TOTAL LOW PROVIDI	691 SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN	X 7		691 SQ. IN
				TOTAL PROVIDED:		691 SQ. IN

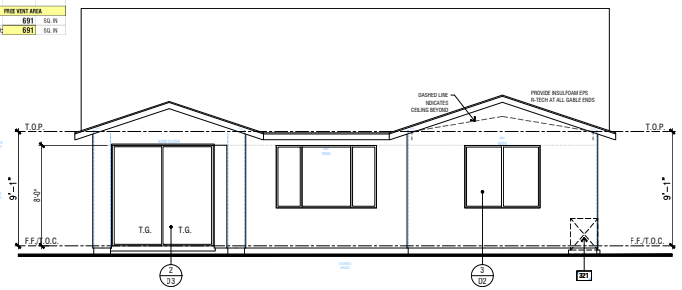
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN	X 7		691 SQ. IN
				TOTAL PROVIDED:		691 SQ. IN



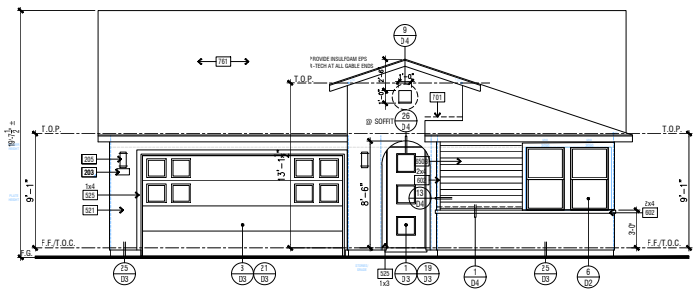
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	-2" STUCCO RECESS. SIZE PER ELEVATION. SLOPE SILL 1/4" PER FT. MINIMUM
516	DECORATIVE FOAM ACCENT - SEE DETAIL "/D"
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND A'ALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
762	ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

LICENSED ARCHITECT REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2013

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

228

A1.6

PLAN 2013C PROGRESSIVE NAPA - EXTERIOR ELEVATIONS & ROOF PLAN

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05/21/18

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - J.N.O.	BARGE - J.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/01	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

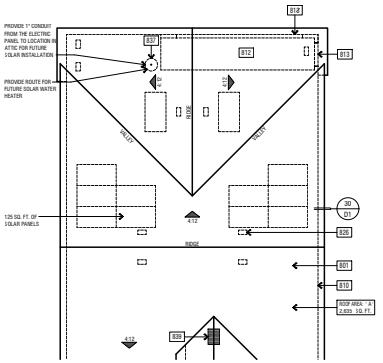
ROOF PLAN KEY NOTES

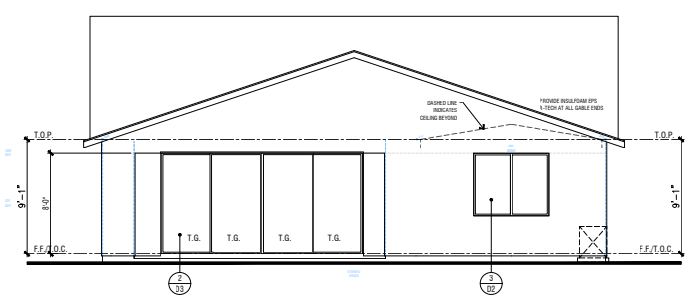
Name	NOTE
B01	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B14	WOOD SOFFIT
B23	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
B26	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

ROOF ATTIC AREA	A	2635	SQ. FT.	CALCULATION FACTOR:	1/300	
		379440	SQ. IN.			
MIN. VENTILATION REQUIRED:	TOTAL	1265	SQ. IN.	TOTAL PROVIDED:	1383	SQ. IN.
MIN. VENTILATION REQUIRED:	HIGH	632	SQ. IN.	TOTAL HIGH PROVID	691	SQ. IN.
MIN. VENTILATION REQUIRED:	LOW	574	SQ. IN.	TOTAL LOW PROVIDI	691	SQ. IN.

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN. X	7	691	SQ. IN.
				TOTAL PROVIDED:	691	SQ. IN.

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN. X	7	691	SQ. IN.
				TOTAL PROVIDED:	691	SQ. IN.





OPT. REAR AT LARGE REAR PATIO '2013 C'

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - J.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/01	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

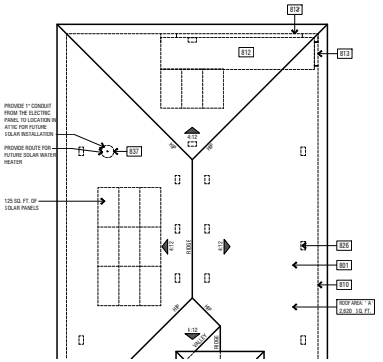
ROOF PLAN KEY NOTES

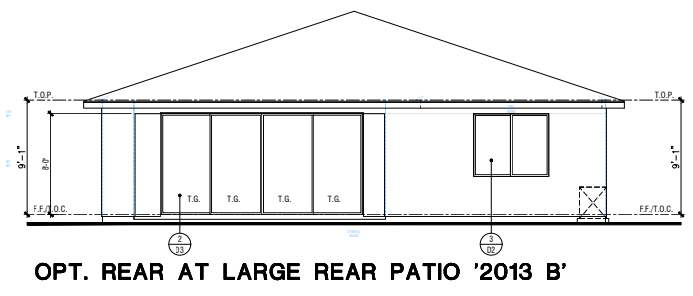
Name	NOTE
B01	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B13	STUCCO SOFFIT
B23	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
B26	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

ROOF ATTIC AREA	A	2620	SQ. FT.	CALCULATION FACTOR:	1/300	
		377280	SQ. IN.			
MIN. VENTILATION REQUIRED:	TOTAL	1258	SQ. IN.	TOTAL PROVIDED:	1383	SQ. IN.
MIN. VENTILATION REQUIRED:	HIGH	629	SQ. IN.	TOTAL HIGH PROVID	691	SQ. IN.
MIN. VENTILATION REQUIRED:	LOW	566	SQ. IN.	TOTAL LOW PROVIDI	691	SQ. IN.

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN. X	7	691	SQ. IN.
				TOTAL PROVIDED:	691	SQ. IN.

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.FLAT TILE -		99	SQ. IN. X	7	691	SQ. IN.
				TOTAL PROVIDED:	691	SQ. IN.





OPT. REAR AT LARGE REAR PATIO '2013 B'

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - J.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC# ESR 1900	1/01	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

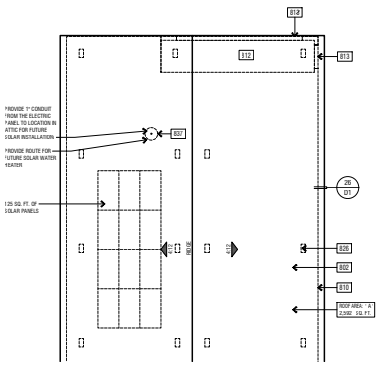
ROOF PLAN KEY NOTES

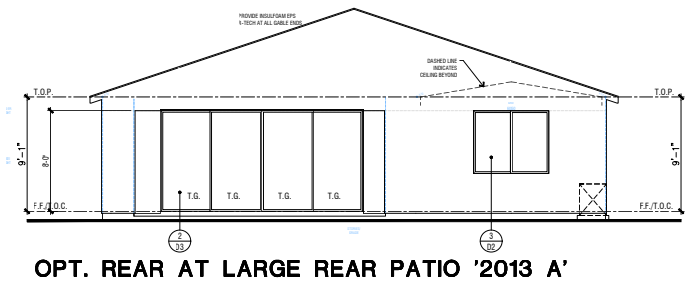
Name	NOTE
B02	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B13	STUCCO SOFFIT
B26	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
B39	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA	A	2592	SQ. FT.	CALCULATION FACTOR:	1/300	
		373248	SQ. IN.			
MIN. VENTILATION REQUIRED:	TOTAL	1244	SQ. IN.	TOTAL PROVIDED:	1365	SQ. IN.
MIN. VENTILATION REQUIRED:	HIGH	622	SQ. IN.	TOTAL HIGH PROVID	683	SQ. IN.
MIN. VENTILATION REQUIRED:	LOW	622	SQ. IN.	TOTAL LOW PROVIDI	683	SQ. IN.

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE -		98	SQ. IN. X	7	683	SQ. IN.
				TOTAL PROVIDED:	683	SQ. IN.

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC.S-TILE -		98	SQ. IN. X	7	683	SQ. IN.
				TOTAL PROVIDED:	683	SQ. IN.





OPT. REAR AT LARGE REAR PATIO '2013 A'

SCALE: 1/4" = 1'-0"

OPTIONAL REAR ELEVATION AT LARGE REAR PATIO AND ROOF PLANS FOR 2013 A, B. C

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT BEN A. 10-19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2013

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.

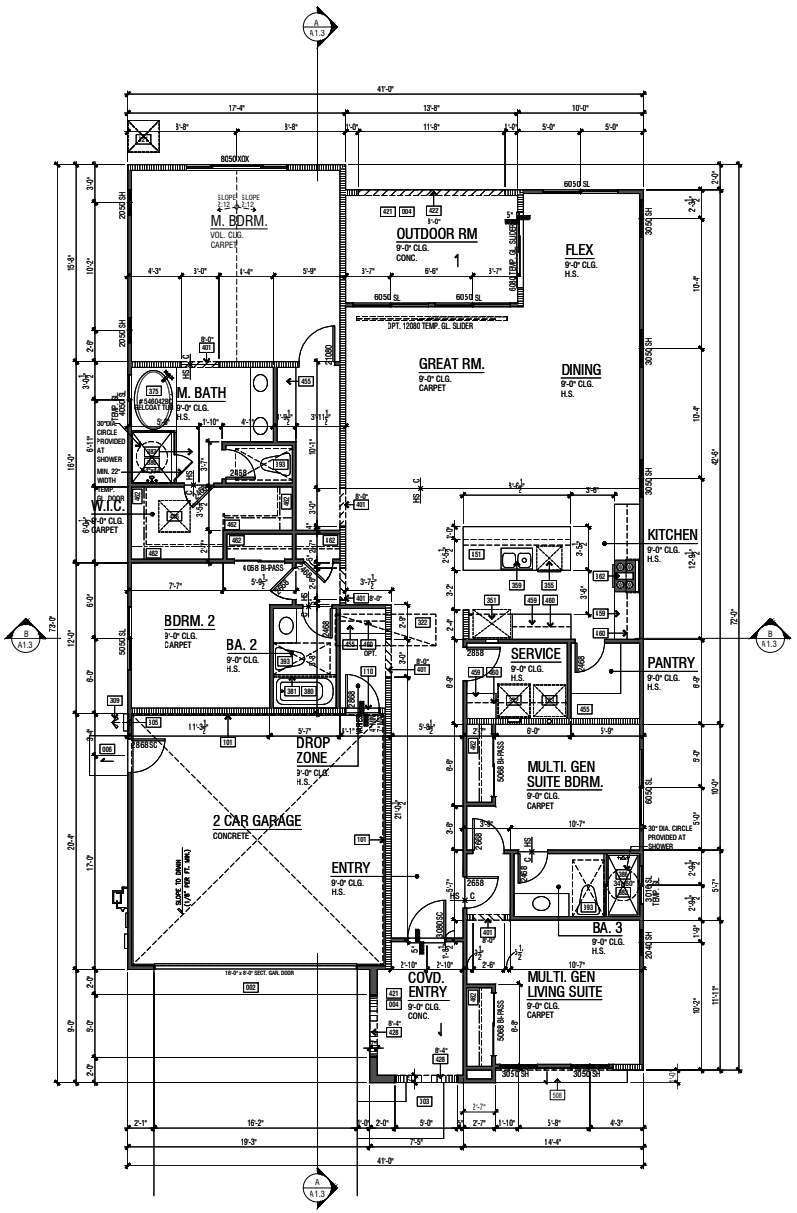
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	229
CAD FILE NAME :	
DATE:	05-21-18
	A1.6.1

2013052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05/21/18



FLOOR PLAN

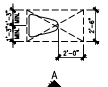
FLOOR PLAN KEY NOTES

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
205	TANKLESS WATER HEATER - MODEL RINNAI (R75LS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
341	14"X8" COMBUSTION AIR VENTS TOP AND BOTTOM - TYP.
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
359	DISHWASHER - ENERGY STAR
362	SLIDE - IN RANGE/OVEN & EXHAUST HOOD WITH FAN AND LIGHT (EXHAUST VENT TO OUTSIDE)
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2903DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S)- HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR
421	STUCCO CEILING- HEIGHT PER PLAN
422	STUCCO SOFFIT- HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT- HEIGHT PER PLAN
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
444	x-34" - x-38" HANDRAIL (SEE DETAIL H-D5)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY
508	WATERPROOFED STUCCO SHELF - SLOP-E 1/4" PER FOOT

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R303.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 CGBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. ‡ COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. ‡ COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
7. ‡ ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 2137A
LOWER FLOOR PLAN	2,137 SQ. FT.
TOTAL	2,137 SQ. FT.
GARAGE	421 SQ. FT.
COVERED ENTRY	80 SQ. FT.
OUTDOOR ROOM	123 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT — BEN A. MILLER — REN 4.30.19 — STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2137
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANYONE OTHER THAN THE ORIGINAL PURCHASER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

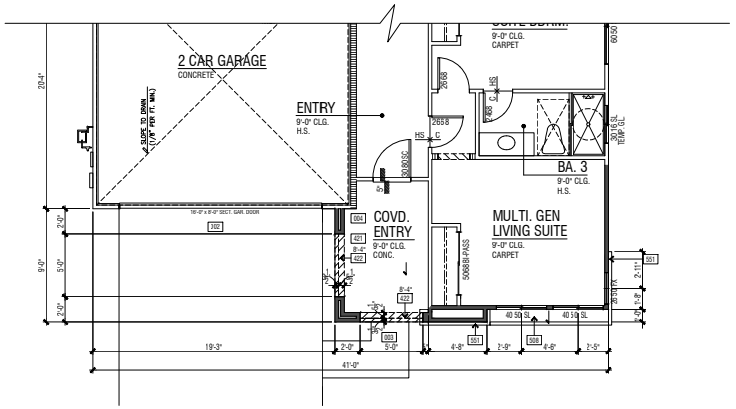
PLAN 2137A - CONTEMPORARY SPANISH

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

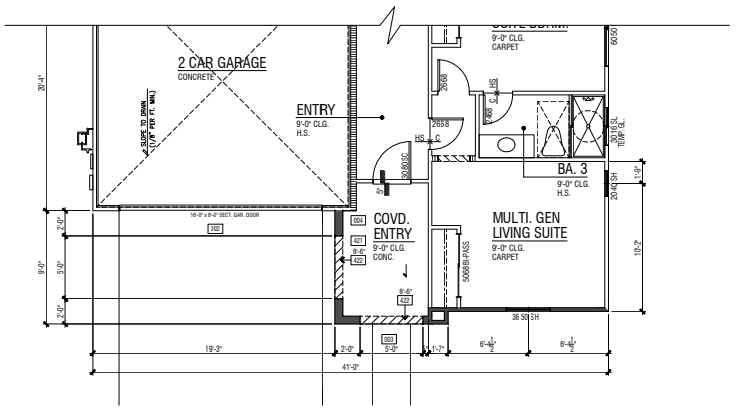
230

A1.0

20130052.14 - FIRST5 BUILDING DEPARTMENT SUBMITTAL - 05-21-18



PARTIAL LOWER FLOOR PLAN 2137B - MODERN



PARTIAL LOWER FLOOR PLAN 2137C - PROGRESSIVE NAPA

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY EL DORADO STONE' (CC-EG ER-3068
598	WATERPROOFED STUCCO SHELF - SLOPE ¼" PER FOOT

ADDENDA FLOOR PLAN NOTES
NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN
NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.
REFER TO BASE PLAN SHEET **A2.0** FOR ADDITIONAL NOTES AND DIMENSIONS.

FLOOR AREA TABLE	PLAN 2137B
LOWER FLOOR PLAN	2,137 SQ. FT.
TOTAL	2,137 SQ. FT.
GARAGE	421 SQ. FT.
COVERED ENTRY	80 SQ. FT.
OUTDOOR ROOM	123 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN

FLOOR AREA TABLE	PLAN 2137C
LOWER FLOOR PLAN	2,137 SQ. FT.
TOTAL	2,137 SQ. FT.
GARAGE	421 SQ. FT.
COVERED ENTRY	80 SQ. FT.
OUTDOOR ROOM	123 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

INTERIOR ELEVATION KEY

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT BEN A. HEZMALHALCH REN: 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2137

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR DISCLOSURE BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

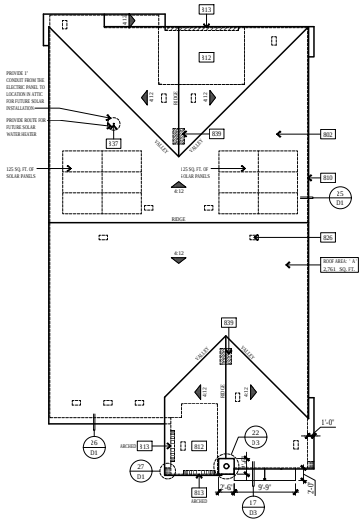
PLAN 2137 PARTIAL FLOOR PLANS 'B' & 'C'

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

231

A1.1

20130052.14 - FIRST5 BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	A	ELEVATION STYLE:	CONTEMPORARY SPANISH			
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - 2 NO.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O.		
				EAVE	RAKE	
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC-# ESR 1900	1 / D1	2X6	NONE	1'-0"	TIGHT	

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

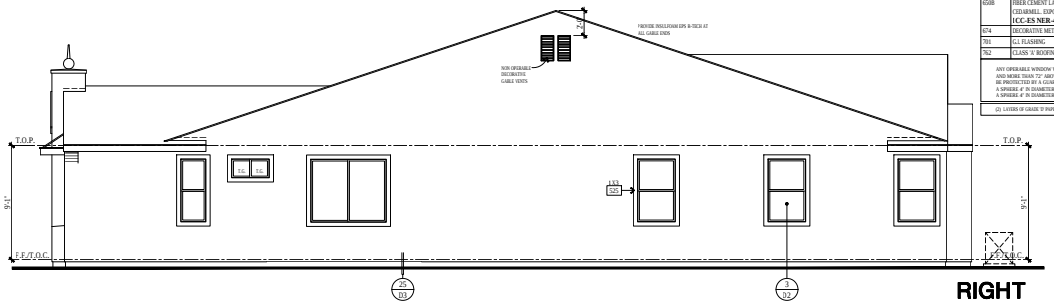
ROOF PLAN KEY NOTES

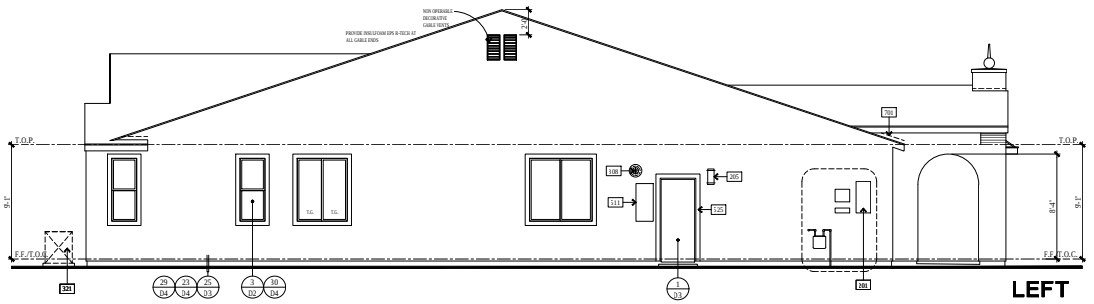
Name	NOTE
002	ROOFING - CONCRETE - 'S' TILE BY EAGLE ROOFING ICC-# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - OMAGN "EL SERIES" CLOAKED VENT (ICC # NER-9450A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

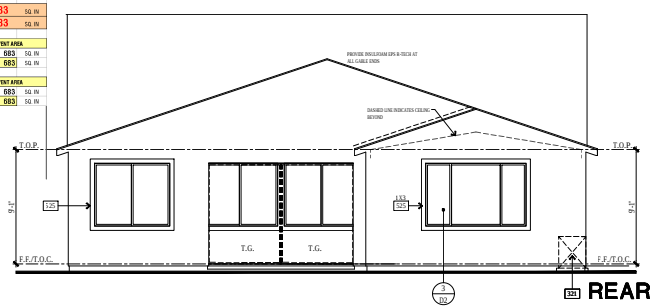
ROOF ATTIC AREA	A	2761	SQ. FT	CALCULATION FACTOR:	1/300
		397584	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	1325	SQ. IN	TOTAL PROVIDED:	1365 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	663	SQ. IN	TOTAL HIGH PROVID	683 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	663	SQ. IN	TOTAL LOW PROVID	683 SQ. IN

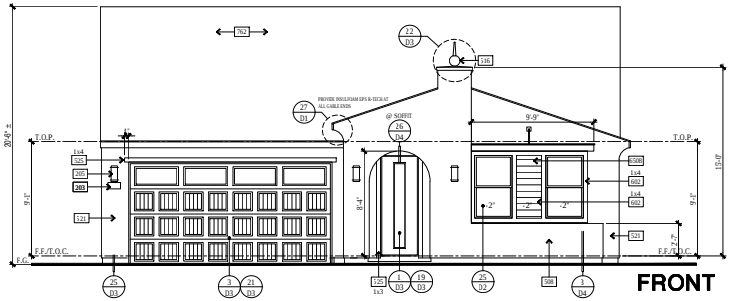
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	7	683 SQ. IN
				TOTAL PROVIDED:	683 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN X	7	683 SQ. IN
				TOTAL PROVIDED:	683 SQ. IN









SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PO... POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. I... (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	-2" STUCCO RECESS. SEE PER ELEVATION. SLOPE SILL 1/4" PER FT. MINIMUM
536	DECORATIVE FOAM ACCENT - SEE DETAIL 22/D3 - ICC ESR 1566
121	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
602	WOOD TRIM(S) - SIZE PER ELEVATION
6508	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT, FINISH: SELECT CEDARMILL. EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) ICC-ES NER-405
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
762	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD SHALL NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2
A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

(2) LAYERS OF GRADE 'D' PAPER IS REQUIRED TO BE INSTALLED OVER WOOD SHEATHING 2016 CRC R703.7.3

ARCHITECTS . PLANNERS . DESIGNERS

ORANGE COUNTY . LOS ANGELES . BAY AREA

AGENDA ITEM NO. 3.

WILSON HOMES

SFD

PLAN 2137A - CONTEMPORARY SPANISH - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2137
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REVISION OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

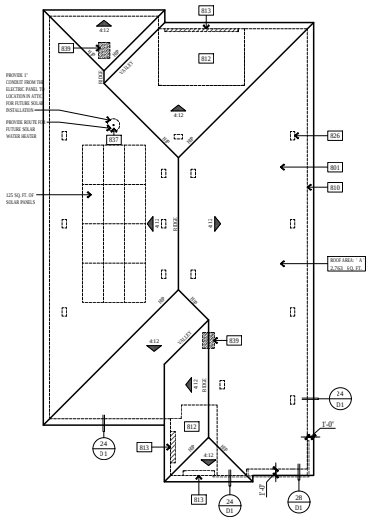
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	-
ISSUED FOR CONSTRUCTION :	-
JOB NUMBER :	20130052.14
CAD FILE NAME :	13052414

DATE: 05-21-18

SHEET: A1.4

20130052.14 - FIRST5 BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	B	ELEVATION STYLE:	MODERN		
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC # ESR 1900	3 D1	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

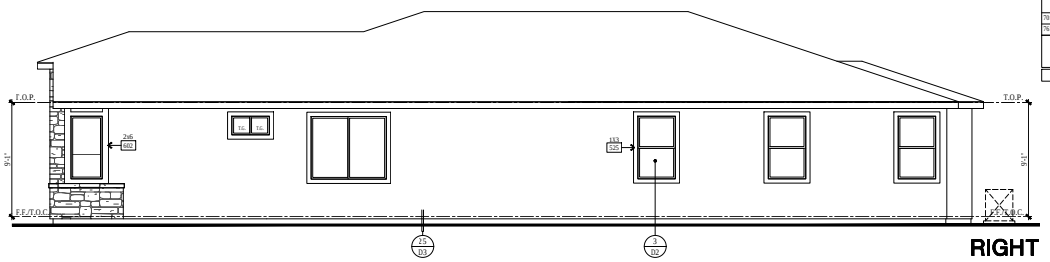
ROOF PLAN KEY NOTES

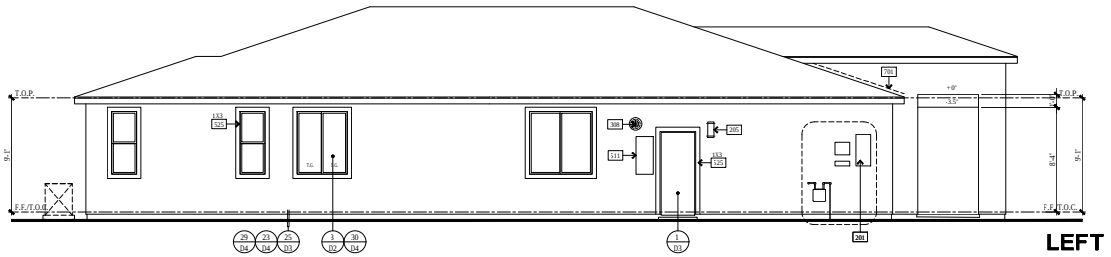
Name	NOTE
B01	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC # ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B13	STUCCO SOFFIT
B26	ROOF VENT - OMAGIN "EL SERIES" CLOAKED VENT (ICC # NER-9650A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
B39	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

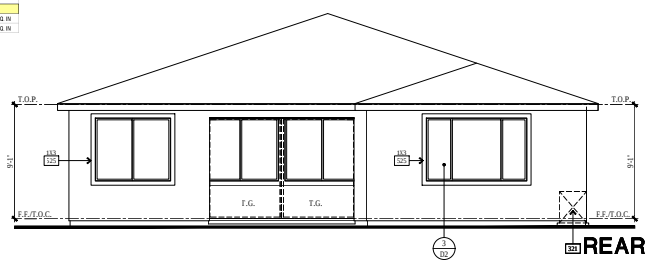
ROOF ATTIC AREA		A	2763	SQ. FT.	CALCULATION FACTOR:		1/300	
			397872	SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	1326	SQ. IN		TOTAL PROVIDED:	1383	SQ. IN	
MIN. VENTILATION REQUIRED:	HIGH	663	SQ. IN		TOTAL HIGH PROVID	691	SQ. IN	
MIN. VENTILATION REQUIRED:	LOW	663	SQ. IN		TOTAL LOW PROVID	691	SQ. IN	

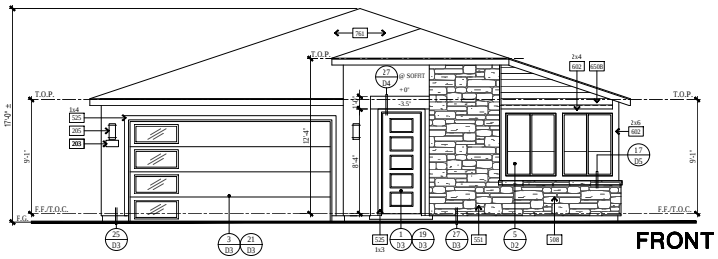
HIGH VENTILATION METHOD	SIZE	FREE AREA			QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC FLAT TILE -		99	SQ. IN	X	7	691	SQ. IN
					TOTAL PROVIDED:	691	SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA			QUANTITY	FREE VENT AREA	
CLOAKED VENT - CONC FLAT TILE -		99	SQ. IN	X	7	691	SQ. IN
					TOTAL PROVIDED:	691	SQ. IN









SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
203	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS P POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - INSTALL PER MANUFACTURERS LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1594
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION (SEE DETAIL *.D*)
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY EL DORADO STONE ICC-ES ER-3568
602	WOOD TRIM(S) - SIZE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 6' (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) **ICC-ES NER-405**
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC # ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CRC 1405.13.2

(2) LAYERS OF GRADE 'D' PAPER IS REQUIRED TO BE INSTALLED OVER WOOD SHEATHING 2016 CRC R703.7.3

ARCHITECTS . PLANNERS . DESIGNERS

ORANGE COUNTY . LOS ANGELES . BAY AREA

AGENDA ITEM NO. 3.

WILSON HOMES

SFD

PLAN 2137B - MODERN - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2137

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REVISION OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

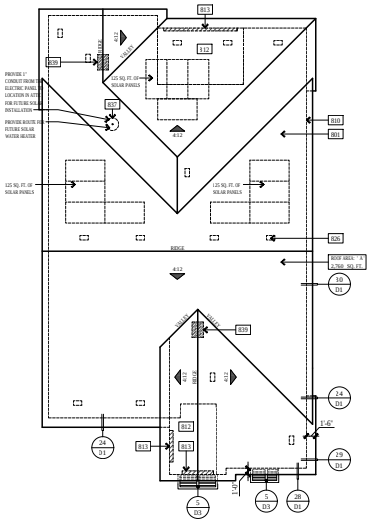
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	-
ISSUED FOR CONSTRUCTION :	-
JOB NUMBER :	2013052.14
CAD FILE NAME :	E3052A1A15

DATE: 05-21-18

SHEET: A1.5

2013052.14 - FIRST5 BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	C	ELEVATION STYLE:	PROGRESSIVE NAPA			
ROOF MATERIAL		STANDARD ROOF DETAIL U.N.O.	↑ ASCIA - ↓ N.O.	BARGE - U.N.O.	OVERHANG DIM. - U. N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC-# ESR 1900		3/D1	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

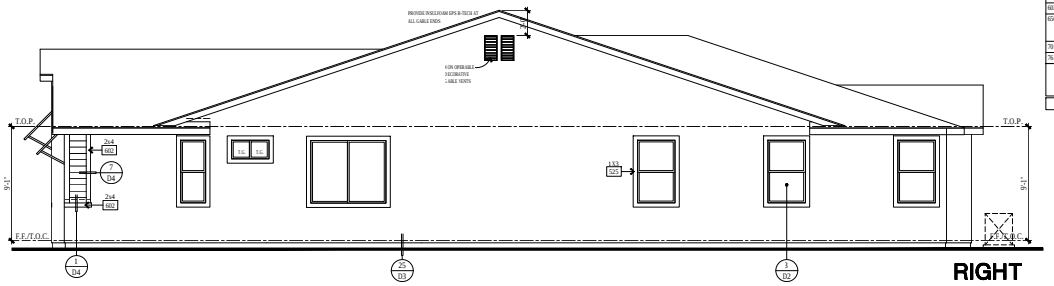
ROOF PLAN KEY NOTES

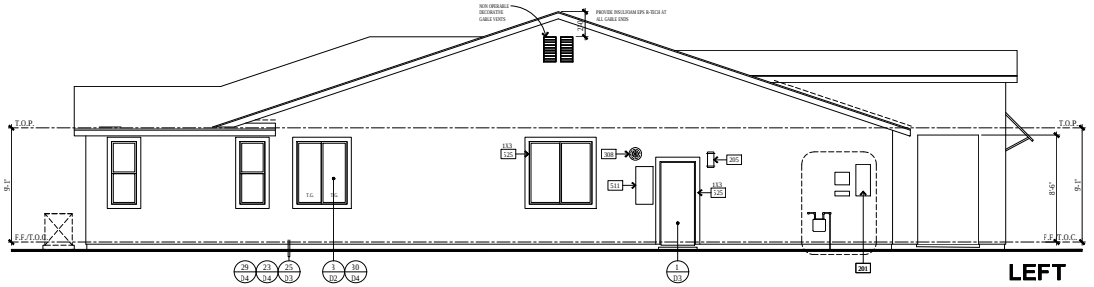
Name	NOTE
B01	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC-# ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B13	STUCCO SOFFIT
B26	ROOF VENT - O'HAGIN "EL SERIES" CLOAKED VENT (ICC # NER-9650A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
B39	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

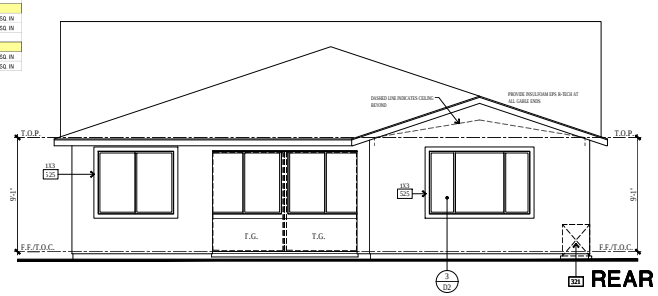
ROOF ATTIC AREA	A	2760	SQ. FT.	CALCULATION FACTOR:	1/300
		397440	SQ. IN		
MIN. VENTILATION REQUIRED:	TOTAL	1325	SQ. IN	TOTAL PROVIDED:	1383 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	662	SQ. IN	TOTAL HIGH PROVID	691 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	662	SQ. IN	TOTAL LOW PROVID	691 SQ. IN

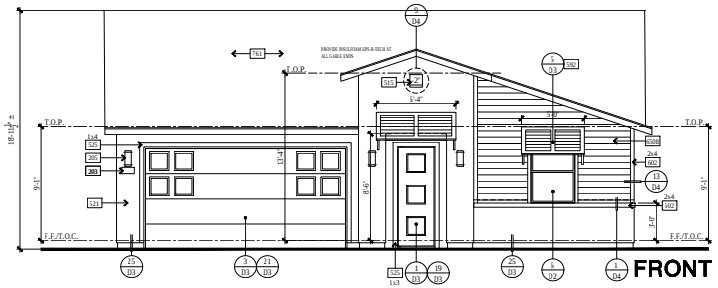
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC./FLAT TILE -		99	SQ. IN	X 7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY	FREE VENT AREA
CLOAKED VENT - CONC./FLAT TILE -		99	SQ. IN	X 7	691 SQ. IN
				TOTAL PROVIDED:	691 SQ. IN









SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES	
Name	NOTE
101	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PL... POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. IN... VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO NICHE. SIZE PER ELEVATION - SLOPE SILL 1/4" PER FT. MINIMUM
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM. ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
192	OVERHEAD AWNING - SIZE AND STYLE PER ELEVATION
602	WOOD TRIM(S) - SIZE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS) **ICC-ES NER-405**
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE BY EAGLE ROOFING ICC-# ESR 1900
	ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CRC 1405.13.2
	(2) LAYERS OF GRADE 'D' PAPER IS REQUIRED TO BE INSTALLED OVER WOOD SHEATHING 2014 CRC R703.7

ARCHITECTS . PLANNERS . DESIGNERS

ORANGE COUNTY . LOS ANGELES . BAY AREA

AGENDA ITEM NO. 3.

LICENSED ARCHITECT — RENEW 4-30-19 — STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2137C - PROGRESSIVE NAPA - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2137
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REVISION TO THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

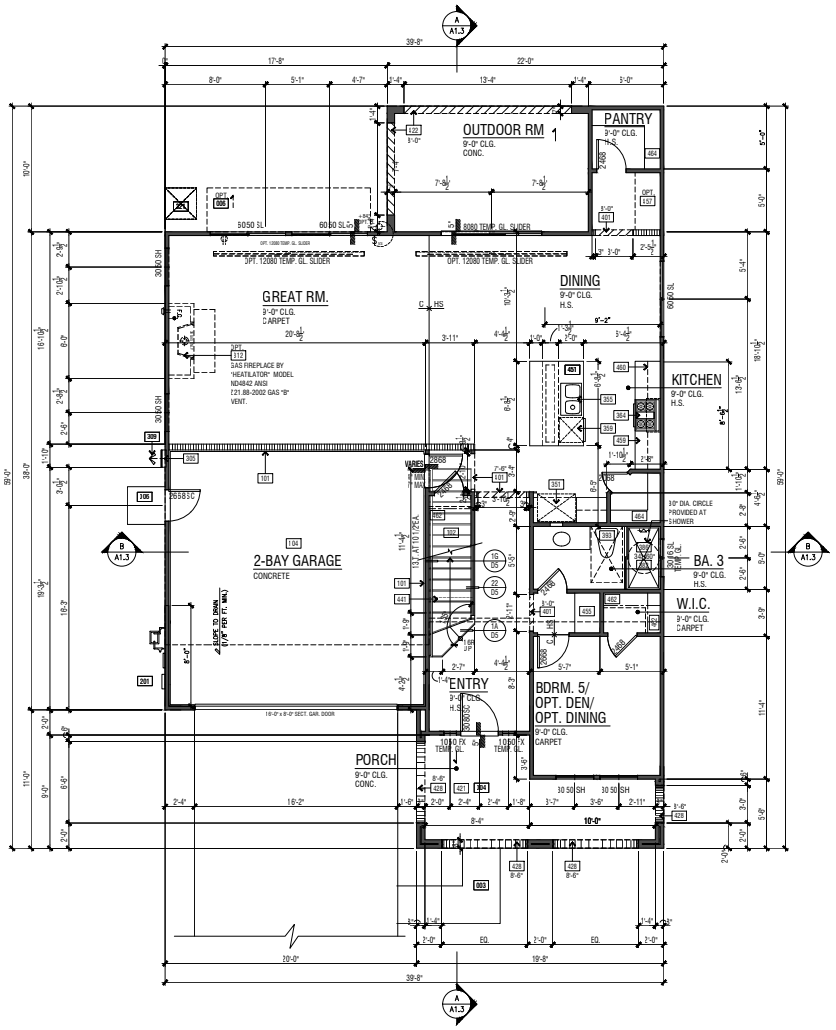
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	RA
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	-
ISSUED FOR CONSTRUCTION :	-
JOB NUMBER :	2013052.14
CAD FILE NAME :	E8052416

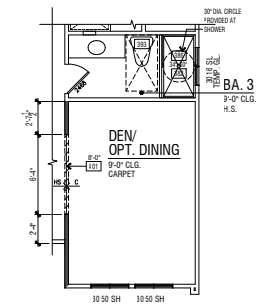
DATE: 05-21-18

SHEET: A1.6

2013052.14 - FIRST5 BUILDING DEPARTMENT SUBMITTAL - 05-21-18



LOWER FLOOR PLAN

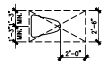


OPTIONAL DEN / DINING
IN LIEU OF BDRM. 5

FLOOR PLAN KEY NOTES	
Name	NOTE
102	CONCRETE DRIVE (BY OTHERS)
103	CONCRETE WALK (BY OTHERS)
104	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
105	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
106	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1
101	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
105	TANKLESS WATER HEATER - MODEL RINNAI (R75LS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
109	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
112	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
121	AIR CONDITIONING CONDENSER LOCATION
122	FORCED AIR UNIT (FAU) ATTIC INSALLATION
136	3" DIA. G.I. DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
151	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
155	SINK WITH GARBAGE DISPOSER
157	UTILITY SINK
159	DISHWASHER - ENERGY STAR
164	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
172	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
173	DRYER SPACE
175	DROP-IN TUB - SIZE PER PLAN
180	TUB/ SHOWER - 32"X60" MODEL 2603DT - SELCOAT SURFACE - BY AQUATIC
181	CURTAIN ROD
182	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
186	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
193	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"X30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CENC 150.0(e)1. ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X PONY WALL - SIZE & HEIGHT PER PLAN
443	2X CRIPPLE WALL - SIZE PER PLAN
444	+34"- +38" HANDRAIL (SEE DETAIL 1/D5)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
457	LINEN (LOW ONLY)
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
463	DOUBLE SHELF & POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES
1. ATTICS. ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R303.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 CGBSC SECTION 4.503 & CDnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CDnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 2399A
LOWER FLOOR PLAN	1,215 SQ. FT.
UPPER FLOOR PLAN	1,184 SQ. FT.
TOTAL	2,399 SQ. FT.
GARAGE	428 SQ. FT.
CALIFORNIA ROOM	160 SQ. FT.
PORCH	140 SQ. FT.

SCALE: 1/4" = 1'-0"

PLAN 2399A - CONTEMPORARY SPANISH FLOOR PLAN AND OPTION

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT WILLIAM HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2399
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

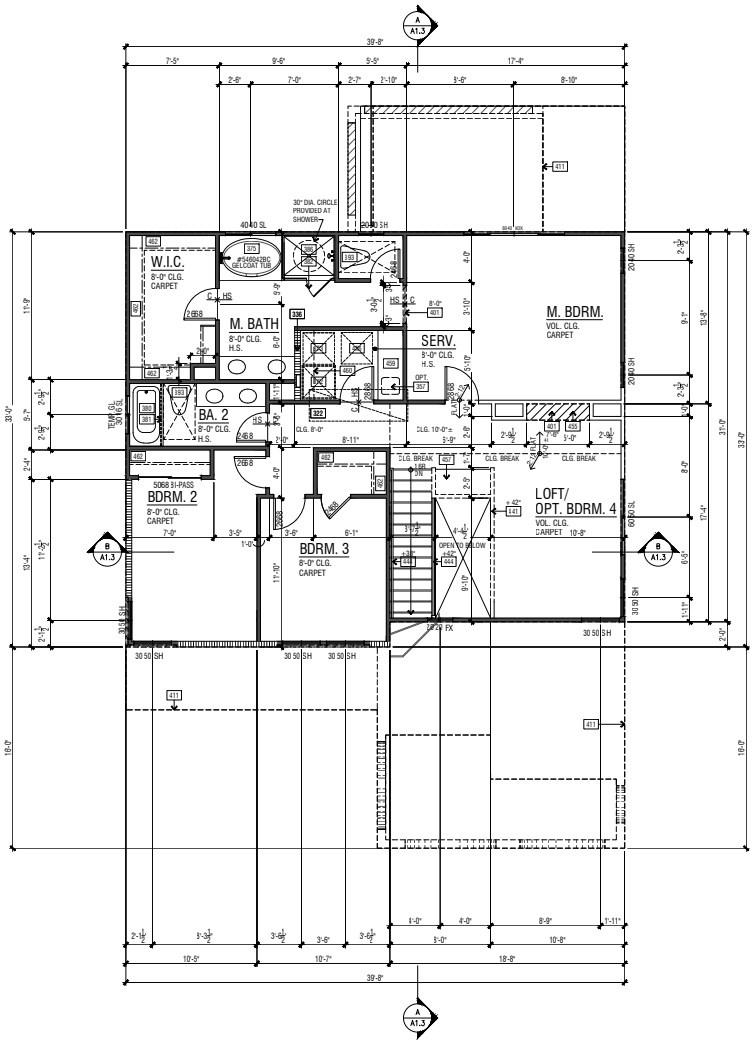
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

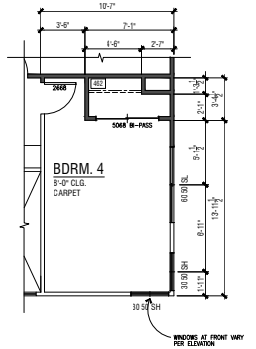
235

A1.0

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



UPPER FLOOR PLAN

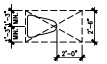


OPTIONAL BEDRM. 4
IN LIEU OF LOFT

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (RTLS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
336	3" DIA. G.I. DRYER VENT WITH APPROVED LINT TRAP - VENT THROUGH ROOF
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
357	UTILITY SINK
359	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2803DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	22"X30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CERC 150.0(A)1, ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFIT: HEIGHT PER PLAN
428	ARCHED STUCCO SOFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
442	2X PONY WALL - SIZE & HEIGHT PER PLAN
443	2X CRIPPLE WALL - SIZE PER PLAN
444	+34"- +38" HANDRAIL (SEE DETAIL 1/DS)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
457	LINEN (LOW ONLY)
458	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
463	DOUBLE SHELF & POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES
1. ATTICS. ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R303.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 (GSBC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 2399A
LOWER FLOOR PLAN	1,215 SQ. FT.
UPPER FLOOR PLAN	1,184 SQ. FT.
TOTAL	2,399 SQ. FT.
GARAGE	428 SQ. FT.
CALIFORNIA ROOM	160 SQ. FT.
PORCH	140 SQ. FT.

SCALE: 1/4" = 1'-0"

PLAN 2399A - CONTEMPORARY SPANISH FLOOR PLAN AND OPTION

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT WILLIAM HEZMALHALCH REN 4-30-19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2399
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

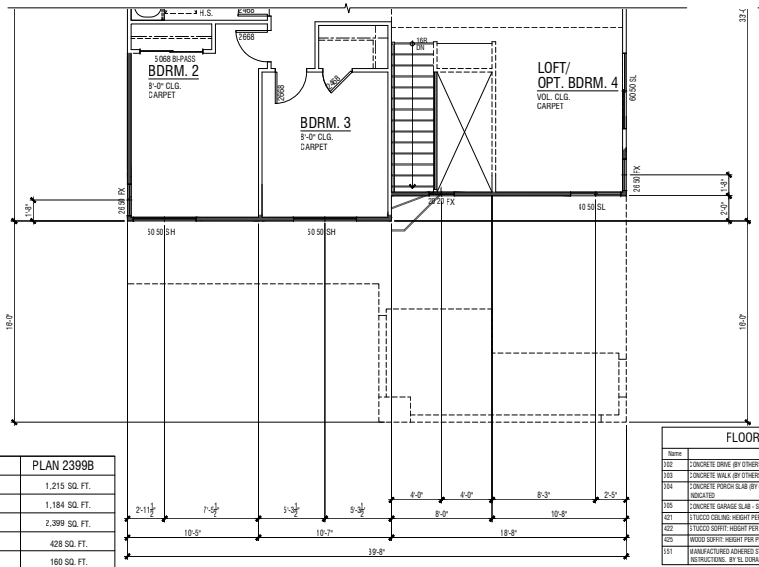
PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	

236

DATE: 05-21-18

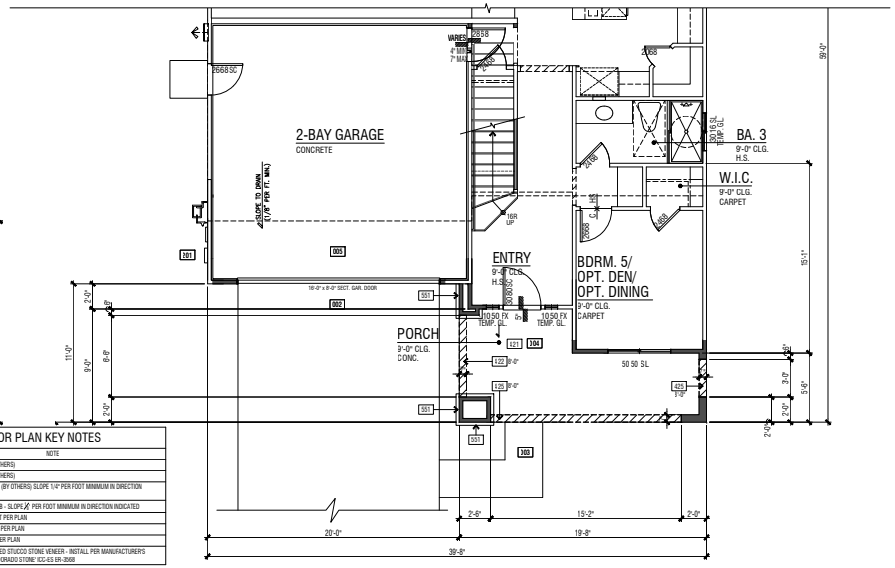
A1.1

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



FLOOR AREA TABLE	PLAN 2399B
LOWER FLOOR PLAN	1,215 SQ. FT.
UPPER FLOOR PLAN	1,184 SQ. FT.
TOTAL	2,399 SQ. FT.
GARAGE	428 SQ. FT.
CALIFORNIA ROOM	160 SQ. FT.
PORCH	140 SQ. FT.

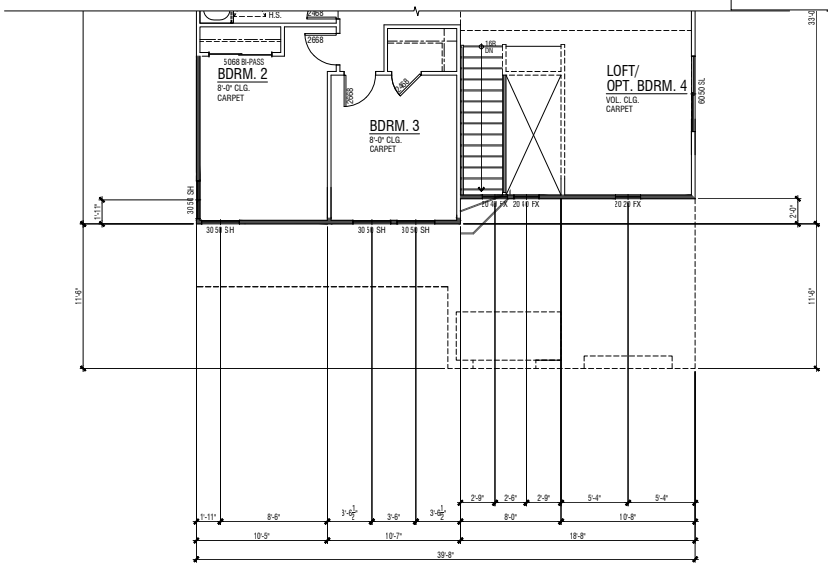
PARTIAL UPPER FLOOR PLAN 2399B - MODERN



FLOOR PLAN KEY NOTES	
Name	NOTE
102	CONCRETE DRIVE (BY OTHERS)
103	CONCRETE WALK (BY OTHERS)
104	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
105	CONCRETE GARAGE SLAB - SLOPE ↗ PER FOOT MINIMUM IN DIRECTION INDICATED
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
429	WOOD SOFFIT: HEIGHT PER PLAN
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY 'EL DORADO STONE' ICC-ES ER-3568

ADDENDA FLOOR PLAN NOTES
NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN
NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.
REFER TO BASE PLAN SHEET FOR ADDITIONAL NOTES AND DIMENSIONS.

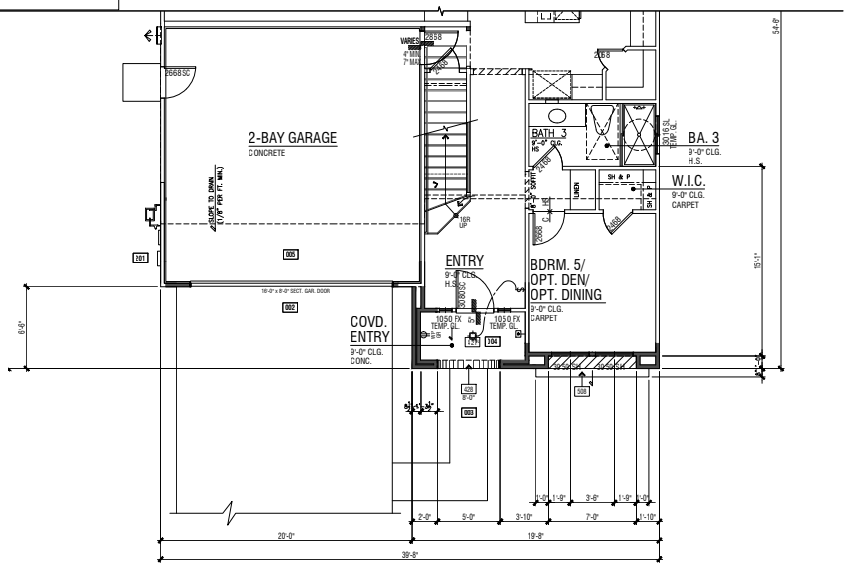
PARTIAL LOWER FLOOR PLAN 2399B - MODERN



FLOOR AREA TABLE	PLAN 2399C
LOWER FLOOR PLAN	1,215 SQ. FT.
UPPER FLOOR PLAN	1,184 SQ. FT.
TOTAL	2,399 SQ. FT.
GARAGE	428 SQ. FT.
CALIFORNIA ROOM	160 SQ. FT.
COVERED ENTRY	39 SQ. FT.

PARTIAL UPPER FLOOR PLAN 2399C - PROGRESSIVE NAPA

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ↗ PER FOOT MINIMUM IN DIRECTION INDICATED
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT



PARTIAL LOWER FLOOR PLAN 2399C - PROGRESSIVE NAPA

SCALE: 1/4" = 1'-0"

PLAN 2399 ADDENDA FLOOR PLANS - B & C

PLAN 2399
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

WILSON HOMES

SFD

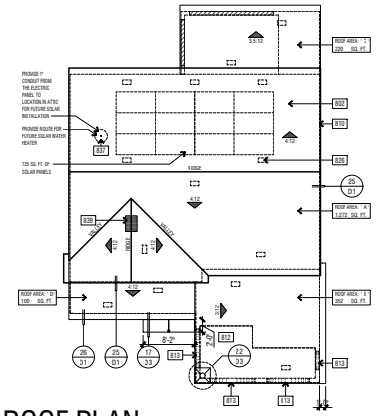
©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	237
CAD FILE NAME :	
DATE:	05-21-18
	A1.1.2

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	A	ELEVATION STYLE:	CONTEMPORARY SPANISH			
ROOF MATERIAL		STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC-# ESR 1900		1 / D1	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

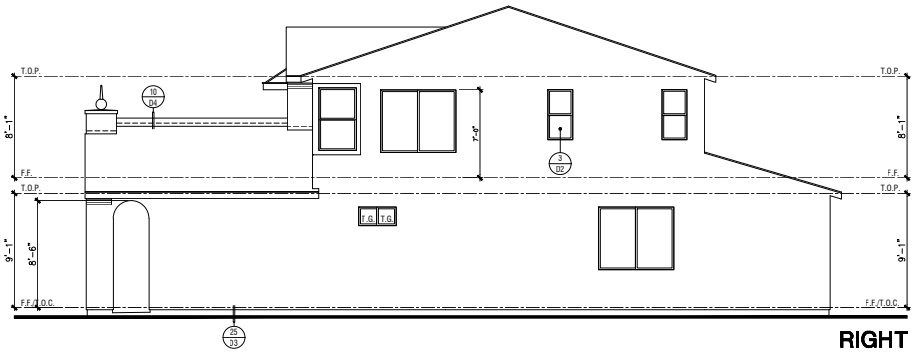
NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

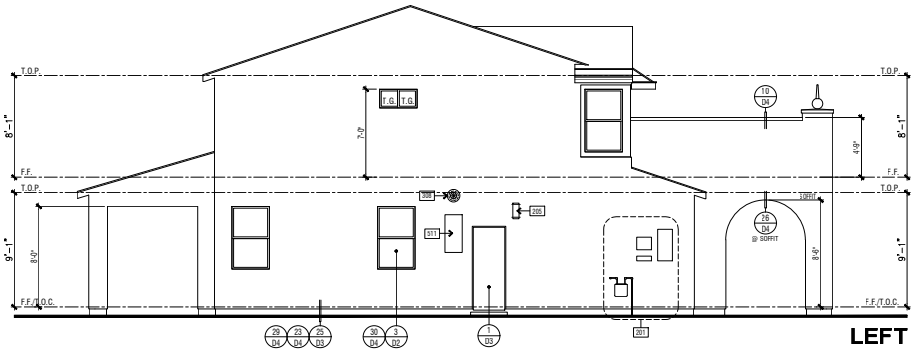
ROOF PLAN KEY NOTES

Name:	NOTE
602	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
610	LINE OF WALL BELOW
612	STUCCO CEILING
613	STUCCO SOFFIT
626	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9950A)
627	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
639	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

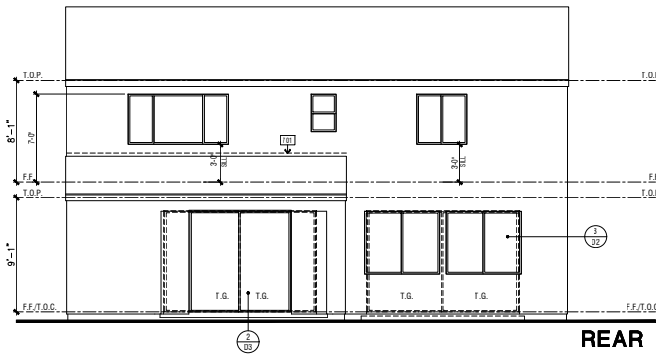
ROOF ATTIC AREA	A	1272	SQ. FT.			CALCULATION FACTOR:		1/300
		183168	SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	611	SQ. IN			TOTAL PROVIDED:	780	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	305	SQ. IN			TOTAL HIGH PROVID	390	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	305	SQ. IN			TOTAL LOW PROVIDI	390	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	4		390	SQ. IN
					TOTAL PROVIDED:		390	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	4		390	SQ. IN
					TOTAL PROVIDED:		390	SQ. IN
ROOF ATTIC AREA	B	352	SQ. FT.			CALCULATION FACTOR:		1/300
		50688	SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	169	SQ. IN			TOTAL PROVIDED:	195	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	84	SQ. IN			TOTAL HIGH PROVID	98	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	84	SQ. IN			TOTAL LOW PROVIDI	98	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	1		98	SQ. IN
					TOTAL PROVIDED:		98	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	1		98	SQ. IN
					TOTAL PROVIDED:		98	SQ. IN
ROOF ATTIC AREA	C	220	SQ. FT.			CALCULATION FACTOR:		1/300
		31680	SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	106	SQ. IN			TOTAL PROVIDED:	195	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	53	SQ. IN			TOTAL HIGH PROVID	98	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	53	SQ. IN			TOTAL LOW PROVIDI	98	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	1		98	SQ. IN
					TOTAL PROVIDED:		98	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	1		98	SQ. IN
					TOTAL PROVIDED:		98	SQ. IN
ROOF ATTIC AREA	D	100	SQ. FT.			CALCULATION FACTOR:		1/300
		14400	SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	48	SQ. IN			TOTAL PROVIDED:	195	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	24	SQ. IN			TOTAL HIGH PROVID	98	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	24	SQ. IN			TOTAL LOW PROVIDI	98	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	1		98	SQ. IN
					TOTAL PROVIDED:		98	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98	SQ. IN	X	1		98	SQ. IN
					TOTAL PROVIDED:		98	SQ. IN



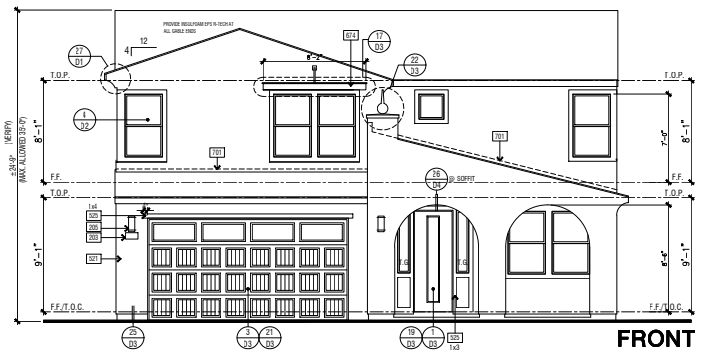
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
508	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-ABAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
521	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	2" STUCCO RECESS, SIZE PER ELEVATION, SLOPE SILL 1/4" PER FT. MINIMUM
516	DECORATIVE FOAM ACCENT - PER DETAIL
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND W/ALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
650B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL, EXPOSURE: 9" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
674	DECORATIVE METAL WINDOW SHADE
701	G.I. FLASHING
762	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH C-30819 REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2399A - CONTEMPORARY SPANISH - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2399

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

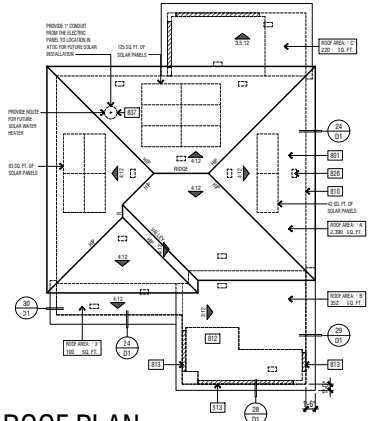
©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	238
CAD FILE NAME :	
DATE:	05-21-18
	A1.4

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN					
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/D1	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

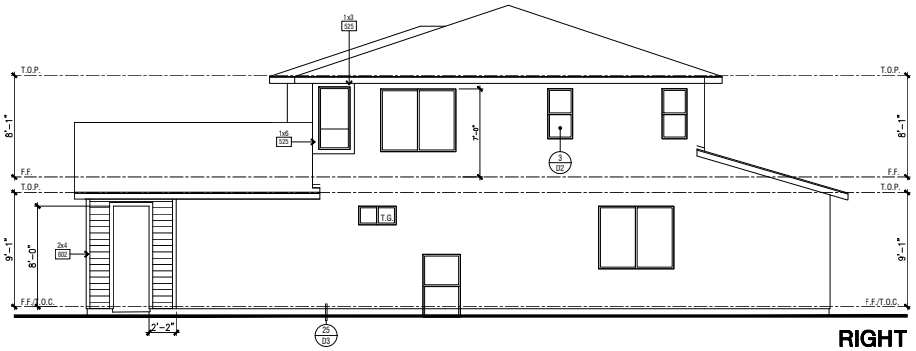
NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

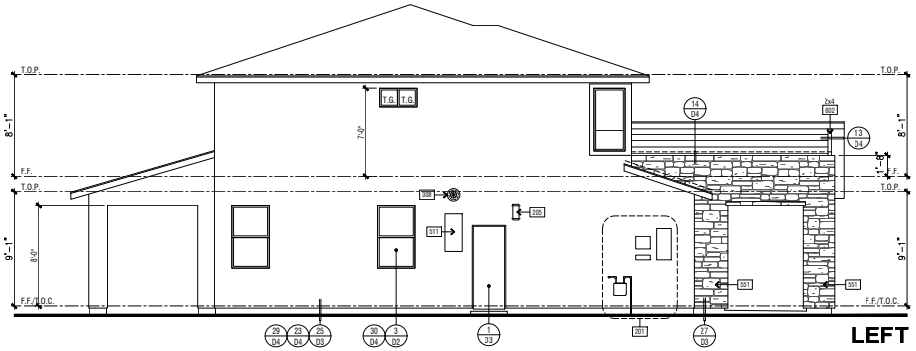
ROOF PLAN KEY NOTES

Name	NOTE
B01	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B13	STUCCO SOFFIT
B23	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
B26	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9693A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

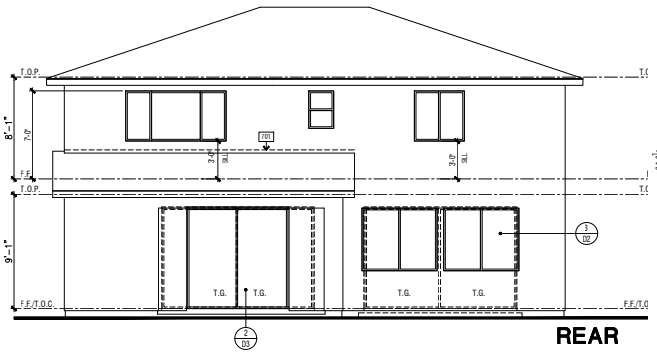
ROOF ATTIC AREA	A	1272 SQ. FT. / 183168 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	611 SQ. IN		TOTAL PROVIDED:	790	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	305 SQ. IN		TOTAL HIGH PROVID	395	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	305 SQ. IN		TOTAL LOW PROVID	395	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 4	TOTAL PROVIDED:	395	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 4	TOTAL PROVIDED:	395	SQ. IN
ROOF ATTIC AREA	B	352 SQ. FT. / 50688 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	169 SQ. IN		TOTAL PROVIDED:	198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	84 SQ. IN		TOTAL HIGH PROVID	99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	84 SQ. IN		TOTAL LOW PROVID	99	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 1	TOTAL PROVIDED:	99	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 1	TOTAL PROVIDED:	99	SQ. IN
ROOF ATTIC AREA	C	220 SQ. FT. / 31680 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	106 SQ. IN		TOTAL PROVIDED:	198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	53 SQ. IN		TOTAL HIGH PROVID	99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	21 SQ. IN		TOTAL LOW PROVID	99	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 1	TOTAL PROVIDED:	99	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 1	TOTAL PROVIDED:	99	SQ. IN
ROOF ATTIC AREA	D	100 SQ. FT. / 14400 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	48 SQ. IN		TOTAL PROVIDED:	198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	24 SQ. IN		TOTAL HIGH PROVID	99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	24 SQ. IN		TOTAL LOW PROVID	99	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 1	TOTAL PROVIDED:	99	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X 1	TOTAL PROVIDED:	99	SQ. IN



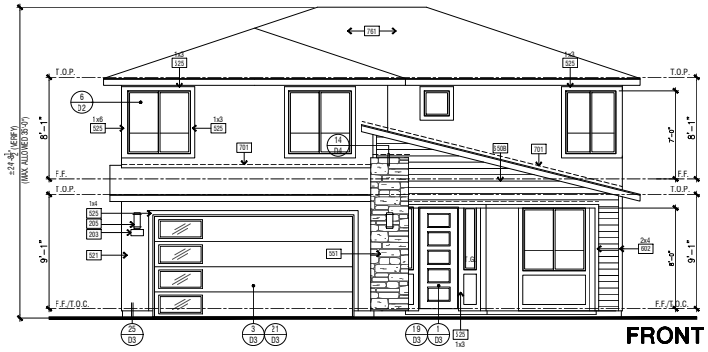
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
101	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
103	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
105	ACCENT EXTERIOR WALL LIGHT
108	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-A/MAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
111	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
121	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
125	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
151	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY EL DORADO STONE ICC-ES ER-3568
162	WOOD TRIM(S) - SIZE PER ELEVATION
550B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 6" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
F01	G.I. FLASHING
F61	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT — BEN A. NEZHAD — C-29787 — STATE OF CALIFORNIA — REN 4.30.19

WILSON HOMES

SFD

PLAN 2399B - MODERN - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2399

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

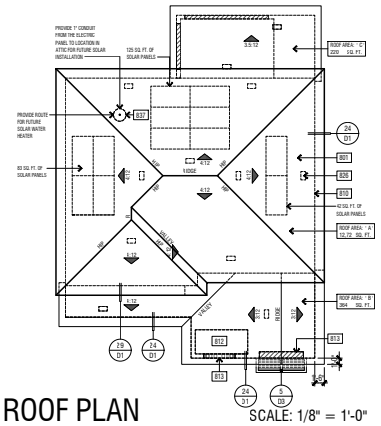
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

239

A1.5

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O.	
				EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/31	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

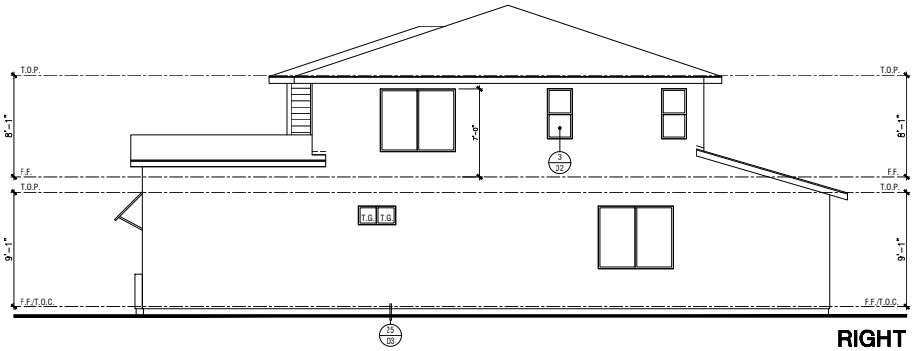
NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

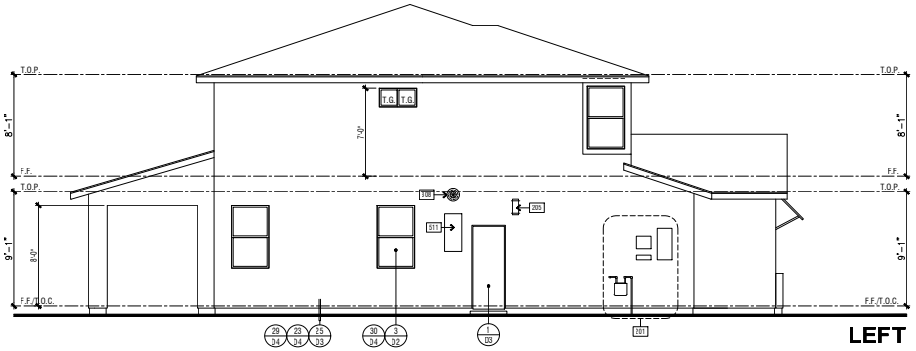
ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
814	WOOD SOFFIT
823	MIN. 22"X30" CLEAR OPENING FOR ACCESS AND AIRFLOW CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS
826	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9659A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.

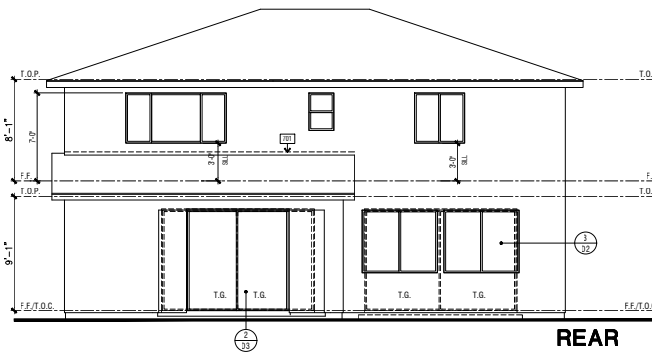
ROOF ATTIC AREA	A	1272 SQ. FT.		CALCULATION FACTOR:		1/300	
		183168 SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	611 SQ. IN		TOTAL PROVIDED:		790	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	305 SQ. IN		TOTAL HIGH PROVID		395	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	305 SQ. IN		TOTAL LOW PROVID		395	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	4		395	SQ. IN
				TOTAL PROVIDED:		395	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	4		395	SQ. IN
				TOTAL PROVIDED:		395	SQ. IN
ROOF ATTIC AREA	B	352 SQ. FT.		CALCULATION FACTOR:		1/300	
		50688 SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	169 SQ. IN		TOTAL PROVIDED:		198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	84 SQ. IN		TOTAL HIGH PROVID		99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	84 SQ. IN		TOTAL LOW PROVID		99	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN
ROOF ATTIC AREA	C	220 SQ. FT.		CALCULATION FACTOR:		1/300	
		31680 SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	106 SQ. IN		TOTAL PROVIDED:		198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	53 SQ. IN		TOTAL HIGH PROVID		99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	21 SQ. IN		TOTAL LOW PROVID		99	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN
ROOF ATTIC AREA	D	364 SQ. FT.		CALCULATION FACTOR:		1/300	
		52416 SQ. IN					
MIN. VENTILATION REQUIRED:	TOTAL	175 SQ. IN		TOTAL PROVIDED:		198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	87 SQ. IN		TOTAL HIGH PROVID		99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	87 SQ. IN		TOTAL LOW PROVID		99	SQ. IN
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99	SQ. IN X	1		99	SQ. IN
				TOTAL PROVIDED:		99	SQ. IN



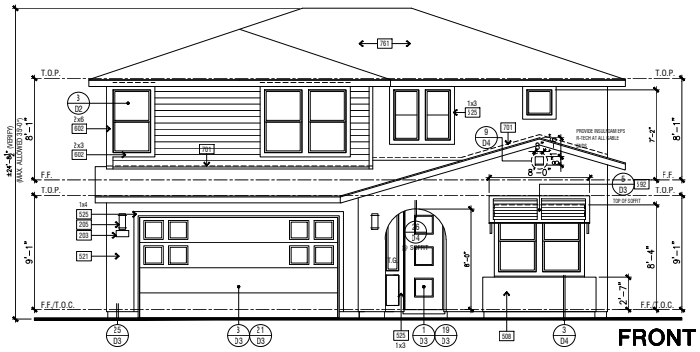
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES	
Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
305	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	AIR CONDITIONING CONDENSER LOCATION
508	WATERPROOFED STUCCO SHELF - SLOP AT 1/4" PER FOOT.
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO NICHE. SIZE PER ELEVATION - SLOPE SILL 1/4" PER FT. MINIMUM
121	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
125	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
192	OVERHEAD SHUTTER - SIZE AND STYLE PER ELEVATION
102	WOOD TRIM(S) - SIZE PER ELEVATION
150B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT, FINISH: SELECT CEDARMILL, EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
F01	G.I. FLASHING
F61	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT BEN A. SILVA STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2399C - PROGRESSIVE NAPA - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2399
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANYONE OTHER THAN THE ORIGINAL PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

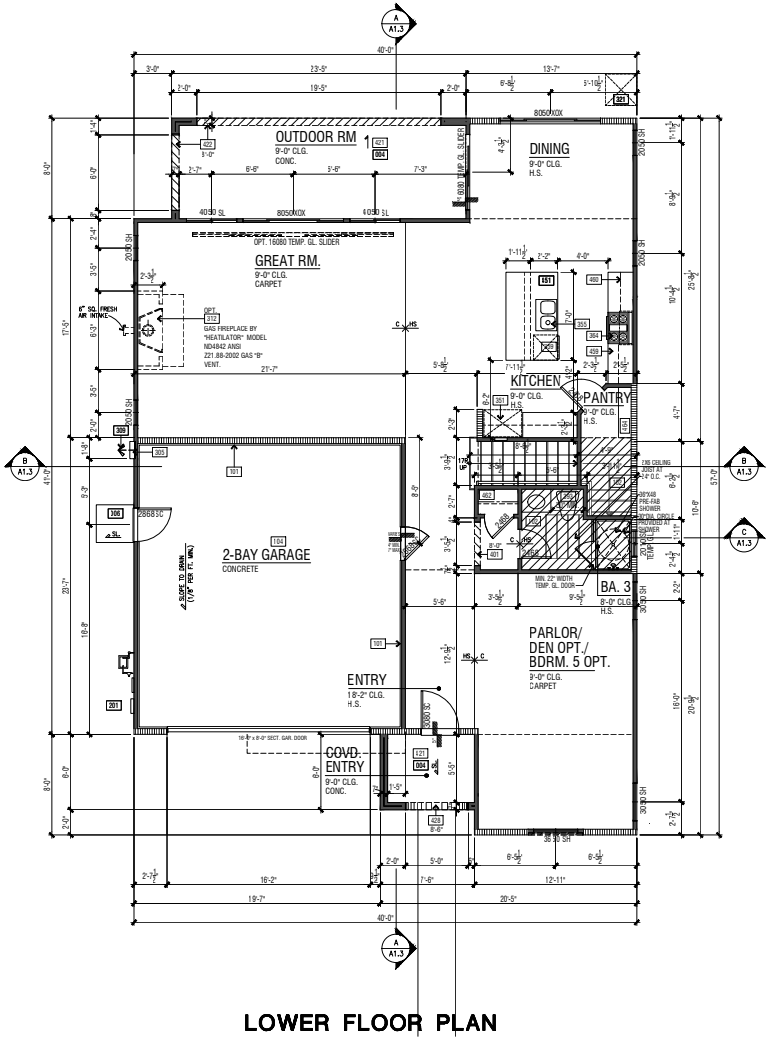
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

240

A1.6

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL - 05-21-18

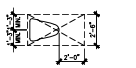


LOWER FLOOR PLAN

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE RRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (R75LS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
359	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2603DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"X30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CENC 150.0(A)1, ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
444	+ 34" - + 38" HANDRAIL (SEE DETAIL 1H/D5)
445	+ 42" GUARD (SEE DETAIL 1F/D5)
446	+ 42" EXTERIOR GUARD (SEE DETAIL 1'L/D4)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES
1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R308.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 CGBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.3.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 2854A
LOWER FLOOR PLAN	1360 SQ. FT.
UPPER FLOOR PLAN	1,494 SQ. FT.
TOTAL	2,854 SQ. FT.
GARAGE	492 SQ. FT.
CALIFORNIA ROOM	187 SQ. FT.
COVERED ENTRY	65 SQ. FT.

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MARK D. MEZMALKALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2854

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM MEZMALKALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

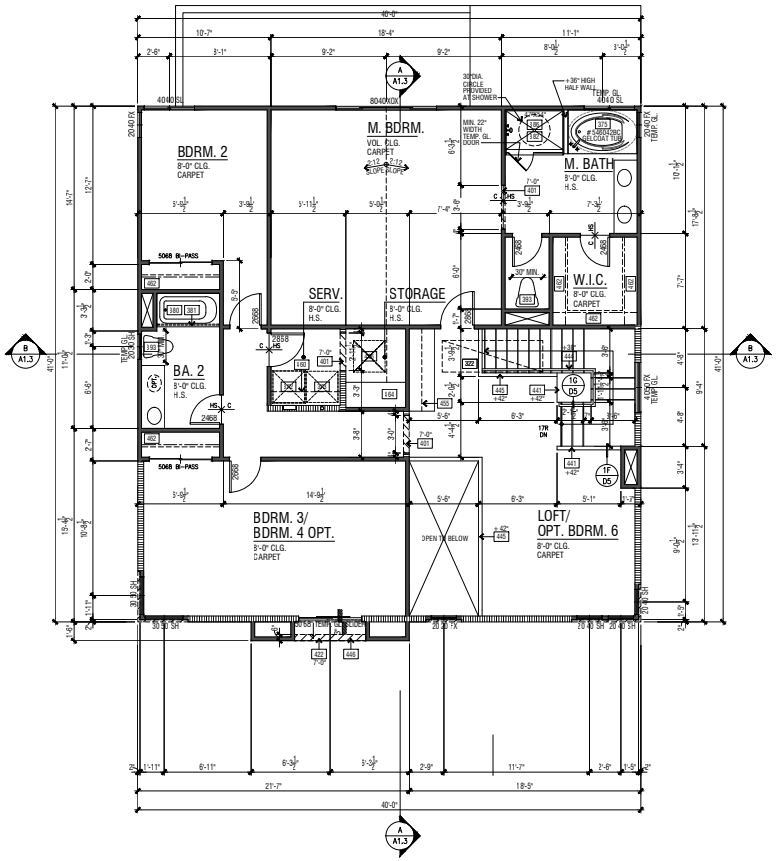
PLAN 2854A - CONTEMPORARY SPANISH

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MM
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

241

A1.0

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18

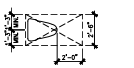


UPPER FLOOR PLAN

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (R75LS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
359	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2603DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"X30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CEnC 150.0(a)1., ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
444	+ 34" - + 38" HANDRAIL (SEE DETAIL 1H/D5)
445	+ 42" GUARD (SEE DETAIL 1F/D5)
446	+ 42" EXTERIOR GUARD (SEE DETAIL 11/D4)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES
1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R308.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 (CBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.3.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 2854A
LOWER FLOOR PLAN	1360 SQ. FT.
UPPER FLOOR PLAN	1,494 SQ. FT.
TOTAL	2,854 SQ. FT.
GARAGE	492 SQ. FT.
CALIFORNIA ROOM	187 SQ. FT.
COVERED ENTRY	65 SQ. FT.

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT WILLIAM HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2854
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

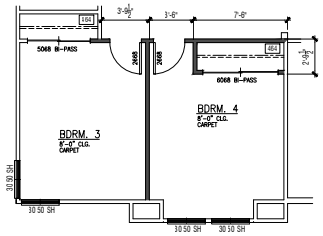
PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MM
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	
05-21-18	

242

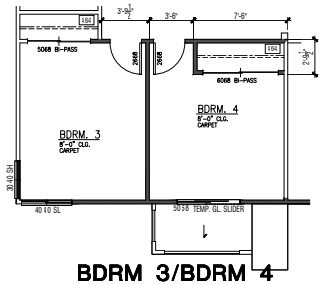
A1.1.1

PLAN 2854A - CONTEMPORARY SPANISH

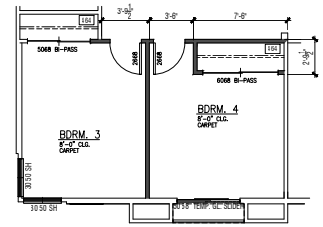
20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



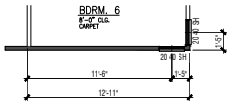
BDRM 3/BDRM 4
AT 'C' ELEVATION



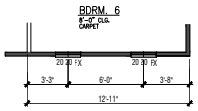
BDRM 3/BDRM 4
AT 'B' ELEVATION



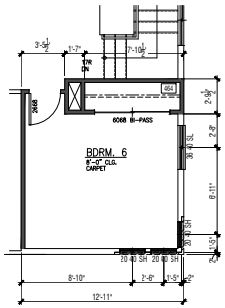
BDRM 3/BDRM 4
AT 'A' ELEVATION



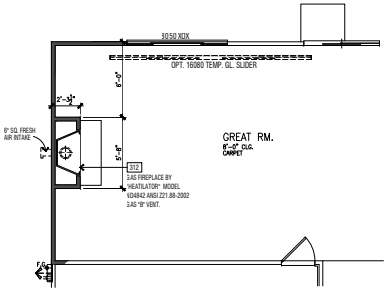
BDRM 6 AT
'C' ELEVATION



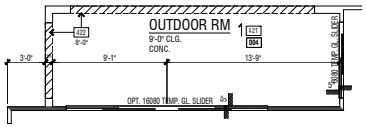
BDRM 6 AT
'B' ELEVATION



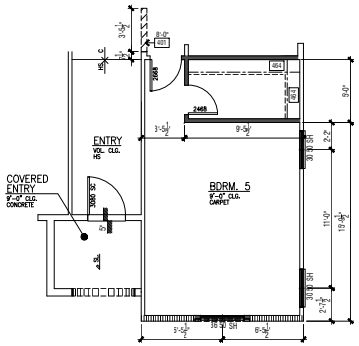
BDRM 6 AT
'A' ELEVATION



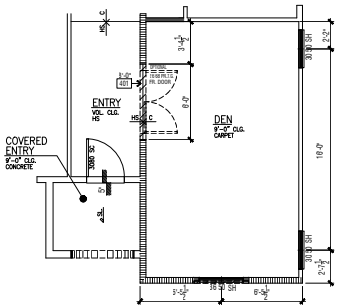
FIREPLACE AT GREAT ROOM



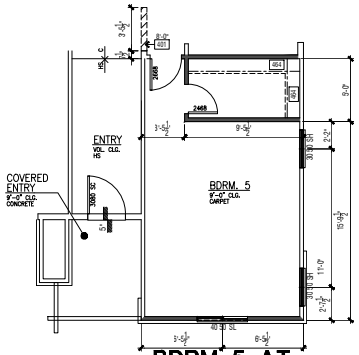
OPT. 16080 SLIDER AT OUTDOOR RM.



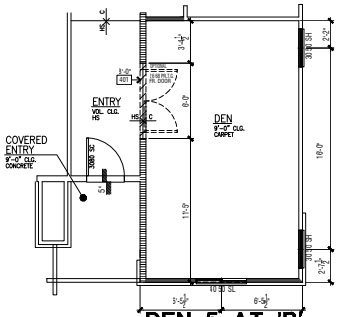
BDRM 5 AT
'A' ELEVATION



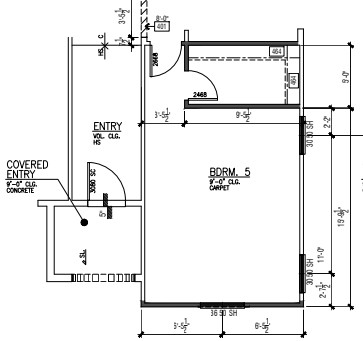
DEN 5 AT 'A'
ELEVATION



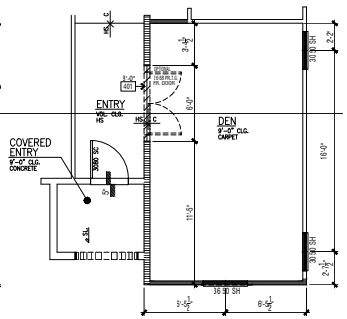
BDRM 5 AT
'B' ELEVATION



DEN 5 AT 'B'
ELEVATION



BDRM 5 AT
'C' ELEVATION



DEN 5 AT 'C'
ELEVATION

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1.
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RINNAI (R75LS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
358	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB - SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2603DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"X30" ATTIC ACCESS - DIMENSIONS ARE CLEAR - PER CENC 150.0(d)1, ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS AND THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT - SEE EXTERIOR ELEVATION
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
444	+ 34"- + 38" HANDRAIL (SEE DETAIL TH/DS)
445	+ 42" GUARD (SEE DETAIL TF/DS)
446	+ 42" EXTERIOR GUARD (SEE DETAIL T1/D4)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES
1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R308.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 CGBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.0.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

A
D A1.7 B
C

INTERIOR ELEVATION KEY

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT
BEN A. HEZMALHALCH
C-34179
REN 4.30.19
STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2854
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

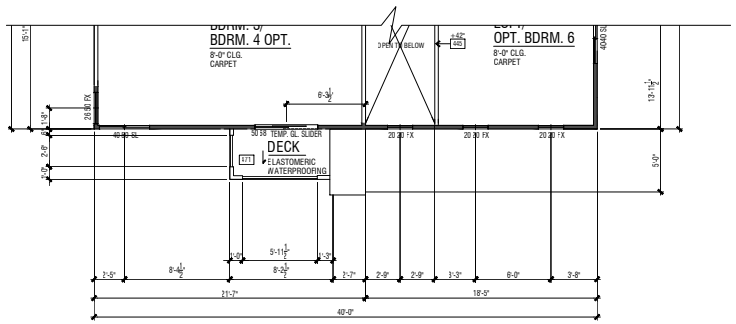
PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MM
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

243

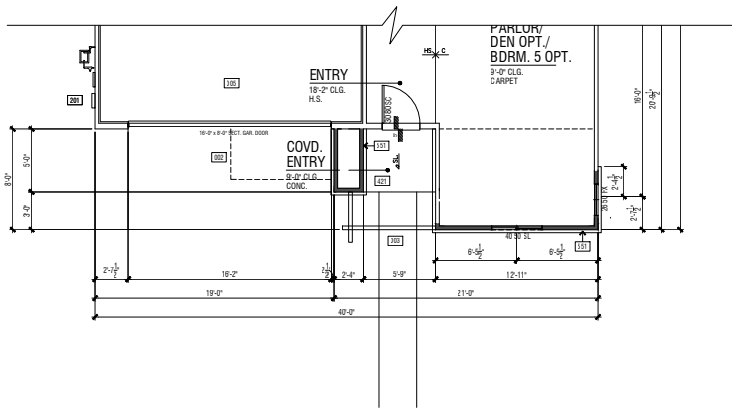
A1.1.2

PLAN 2854 - OPTIONS

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



PARTIAL UPPER FLOOR PLAN 2854B - MODERN



PARTIAL LOWER FLOOR PLAN 2854B - MODERN

FLOOR AREA TABLE	PLAN 2854B
LOWER FLOOR PLAN	1360 SQ. FT.
UPPER FLOOR PLAN	1,494 SQ. FT.
TOTAL	2,854 SQ. FT.
GARAGE	492 SQ. FT.
CALIFORNIA ROOM	187 SQ. FT.
COVERED ENTRY	50 SQ. FT.

FLOOR PLAN KEY NOTES

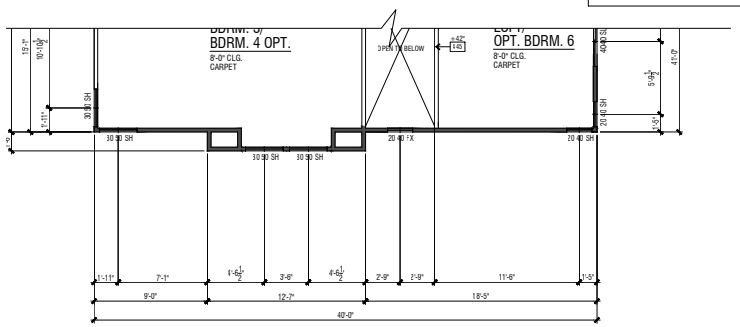
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
471	ELASTOMERIC WATERPROOF DECKING SYSTEM - INSTALL PER MFR. INSTRUCTIONS. SLOPE ¼" FRAMING PER FOOT MINIMUM FOR DRAINAGE. SHEET FLOW DRAINAGE IN DIRECTION INDICATED.
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY EL DORADO STONE ICC-ES ER-3568

ADDENDA FLOOR PLAN NOTES

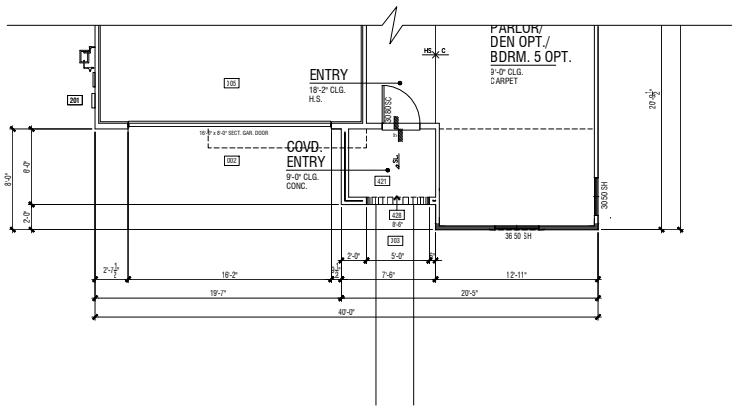
NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET FOR ADDITIONAL NOTES AND DIMENSIONS.



PARTIAL UPPER FLOOR PLAN 2866C - PROGRESSIVE NAPA



PARTIAL LOWER FLOOR PLAN 2866C - PROGRESSIVE NAPA

FLOOR AREA TABLE	PLAN 2866C
LOWER FLOOR PLAN	1360 SQ. FT.
UPPER FLOOR PLAN	1,506 SQ. FT.
TOTAL	2,866 SQ. FT.
GARAGE	492 SQ. FT.
CALIFORNIA ROOM	187 SQ. FT.
COVERED ENTRY	45 SQ. FT.

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4-30-19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2854

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANYONE OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

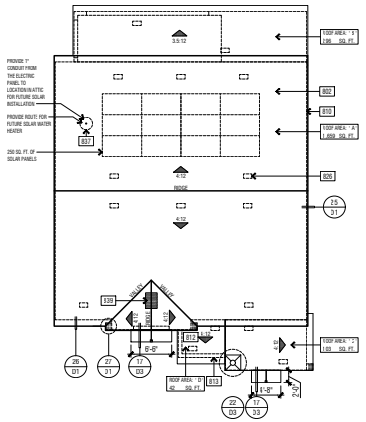
PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

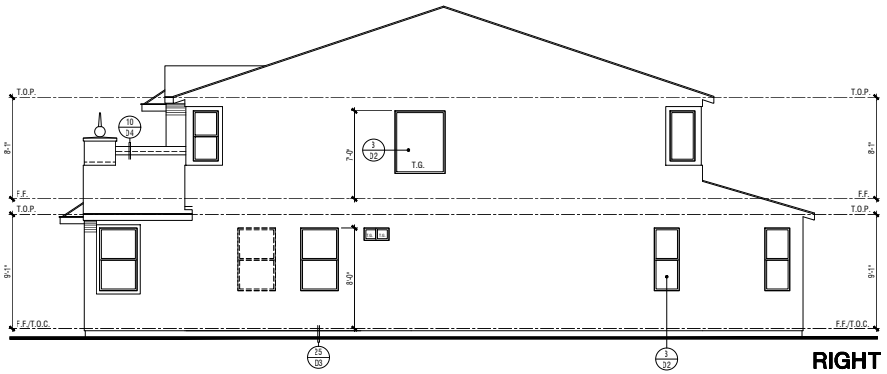
244

A1.1.3

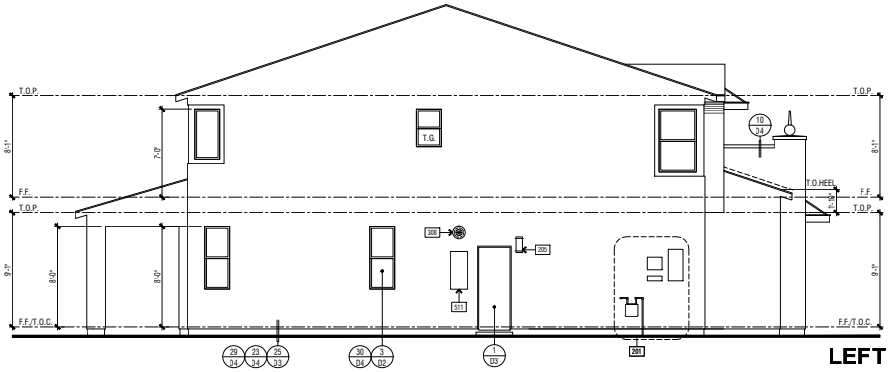
PLAN 2854 PARTIAL FLOOR PLANS 'B' & 'C'

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18

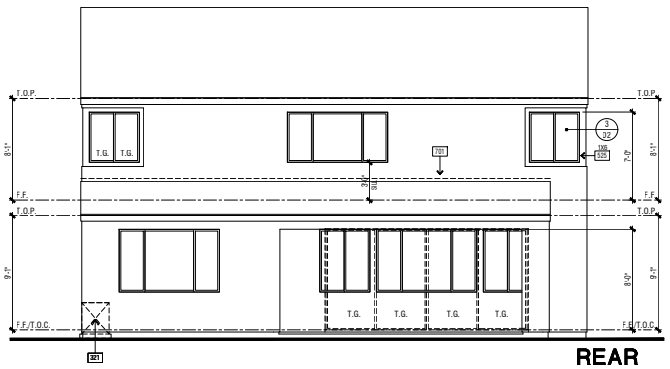




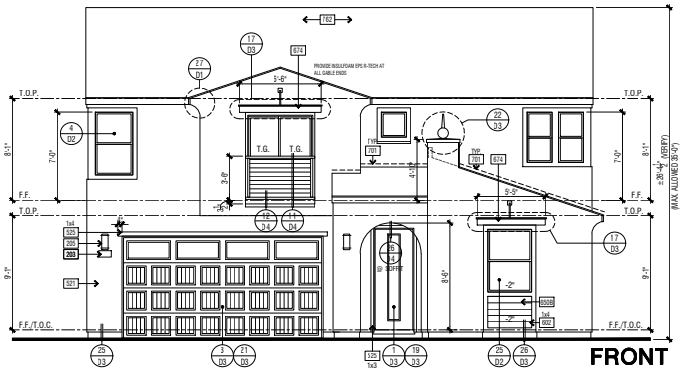
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH					
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC-# ESR 1900	1/91	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

ROOF PLAN KEY NOTES

Name	NOTE
602	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - 'OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9690A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA	A	1659 SQ. FT. 238896 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	796 SQ. IN	TOTAL PROVIDED:	975 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	398 SQ. IN	TOTAL HIGH PROVID	488 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	398 SQ. IN	TOTAL LOW PROVID	488 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 5	488 SQ. IN		
			TOTAL PROVIDED:	488 SQ. IN		
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 5	488 SQ. IN		
			TOTAL PROVIDED:	488 SQ. IN		
ROOF ATTIC AREA	B	296 SQ. FT. 42624 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	142 SQ. IN	TOTAL PROVIDED:	195 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	71 SQ. IN	TOTAL HIGH PROVID	98 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	71 SQ. IN	TOTAL LOW PROVID	98 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 1	98 SQ. IN		
			TOTAL PROVIDED:	98 SQ. IN		
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 1	98 SQ. IN		
			TOTAL PROVIDED:	98 SQ. IN		
ROOF ATTIC AREA	C	103 SQ. FT. 14832 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	49 SQ. IN	TOTAL PROVIDED:	195 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	25 SQ. IN	TOTAL HIGH PROVID	98 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	25 SQ. IN	TOTAL LOW PROVID	98 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 1	98 SQ. IN		
			TOTAL PROVIDED:	98 SQ. IN		
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 1	98 SQ. IN		
			TOTAL PROVIDED:	98 SQ. IN		
ROOF ATTIC AREA	D	42 SQ. FT. 6048 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	20 SQ. IN	TOTAL PROVIDED:	195 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	10 SQ. IN	TOTAL HIGH PROVID	98 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	10 SQ. IN	TOTAL LOW PROVID	98 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 1	98 SQ. IN		
			TOTAL PROVIDED:	98 SQ. IN		
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY	FREE VENT AREA		
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	X 1	98 SQ. IN		
			TOTAL PROVIDED:	98 SQ. IN		

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	1/2DRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	1/2CENT EXTERIOR WALL LIGHT
308	1 TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
321	1/6R CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	2" STUCCO RECESS, SIZE PER ELEVATION, SLOPE SILL 1/4" PER FT. MINIMUM
516	DECORATIVE FOAM ACCENT - SEE DETAIL "/D"
521	1 STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
550B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT 2 SEAMWILL - EXPOSURE: 9" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
574	DECORATIVE METAL WINDOW SHADE
701	3.1. FLASHING
762	1 CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

LICENSED ARCHITECT — REN 4.30.19 — STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 2854A - CONTEMPORARY SPANISH - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2854
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

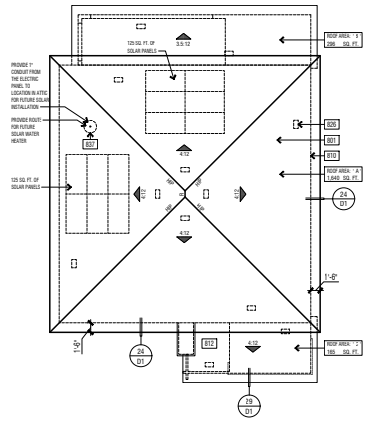
©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

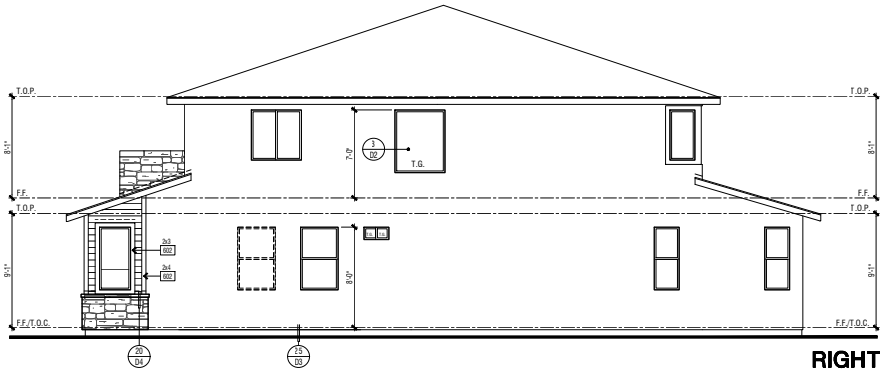
REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	245
CAD FILE NAME :	
DATE:	05-21-18
	A1.4

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18





ELEVATION KEY NOTES

Name	NOTE
101	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
103	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
105	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AWAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION (SEE DETAIL "D")
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURERS INSTRUCTIONS. BY EL DORADO STONE ICC-ES ER-3568
552	WOOD TRIM(S) - SIZE PER ELEVATION
556B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 6" (INSTALLATION PER MANUFACTURERS INSTRUCTIONS)
T01	G.I. FLASHING
T61	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REN 4.30.19

WILSON HOMES

SFD

ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: B	ELEVATION STYLE: MODERN				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/D1	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	ROOF VENT - OHAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
859	MIN. 12"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA	A	1640 SQ. FT.		CALCULATION FACTOR:		1/300
		236160 SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	787 SQ. IN		TOTAL PROVIDED:	790	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	394 SQ. IN		TOTAL HIGH PROVID	395	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	394 SQ. IN		TOTAL LOW PROVID	395	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99 SQ. IN	X	4		395 SQ. IN
				TOTAL PROVIDED:		395 SQ. IN

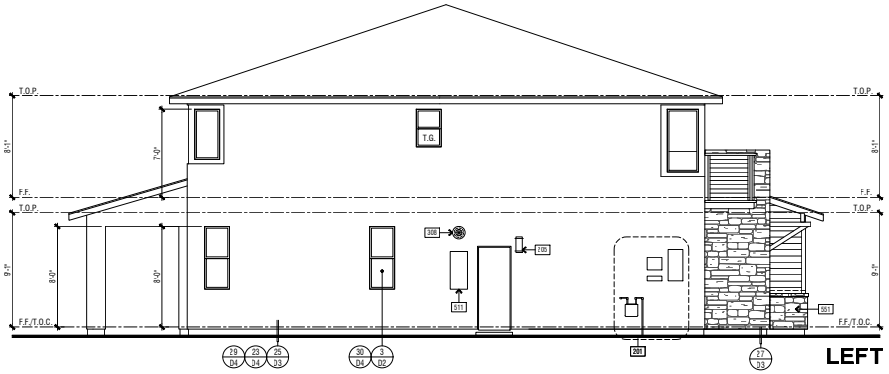
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99 SQ. IN	X	4		395 SQ. IN
				TOTAL PROVIDED:		395 SQ. IN
ROOF ATTIC AREA	B	296 SQ. FT.		CALCULATION FACTOR:		1/300
		42624 SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	142 SQ. IN		TOTAL PROVIDED:	198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	71 SQ. IN		TOTAL HIGH PROVID	99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	71 SQ. IN		TOTAL LOW PROVID	99	SQ. IN

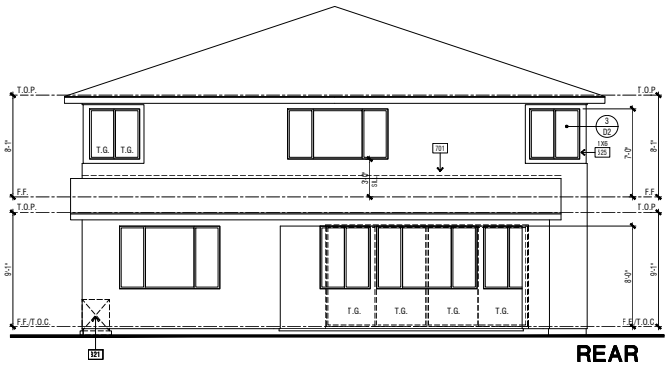
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99 SQ. IN	X	1		99 SQ. IN
				TOTAL PROVIDED:		99 SQ. IN

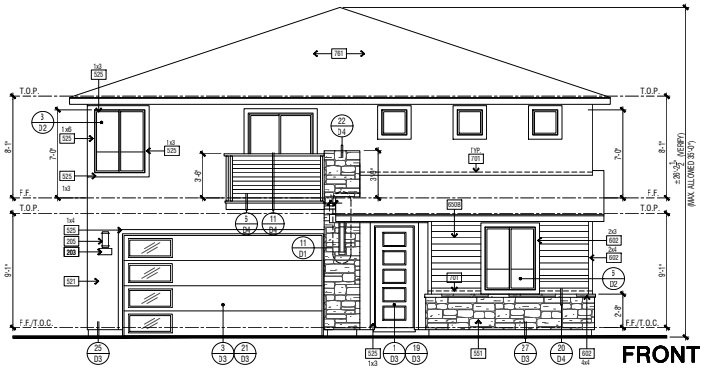
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99 SQ. IN	X	1		99 SQ. IN
				TOTAL PROVIDED:		99 SQ. IN
ROOF ATTIC AREA	C	165 SQ. FT.		CALCULATION FACTOR:		1/300
		23760 SQ. IN				
MIN. VENTILATION REQUIRED:	TOTAL	79 SQ. IN		TOTAL PROVIDED:	198	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	40 SQ. IN		TOTAL HIGH PROVID	99	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	40 SQ. IN		TOTAL LOW PROVID	99	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99 SQ. IN	X	1		99 SQ. IN
				TOTAL PROVIDED:		99 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC FLAT TILE -		99 SQ. IN	X	1		99 SQ. IN
				TOTAL PROVIDED:		99 SQ. IN







SCALE: 1/4" = 1'-0"

PLAN 2854B - MODERN - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 2854

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY THE OWNER OR BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

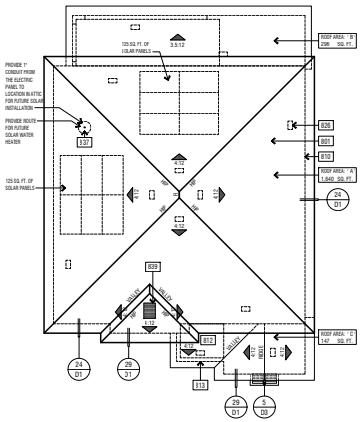
NO.	DATE	DESCRIPTION

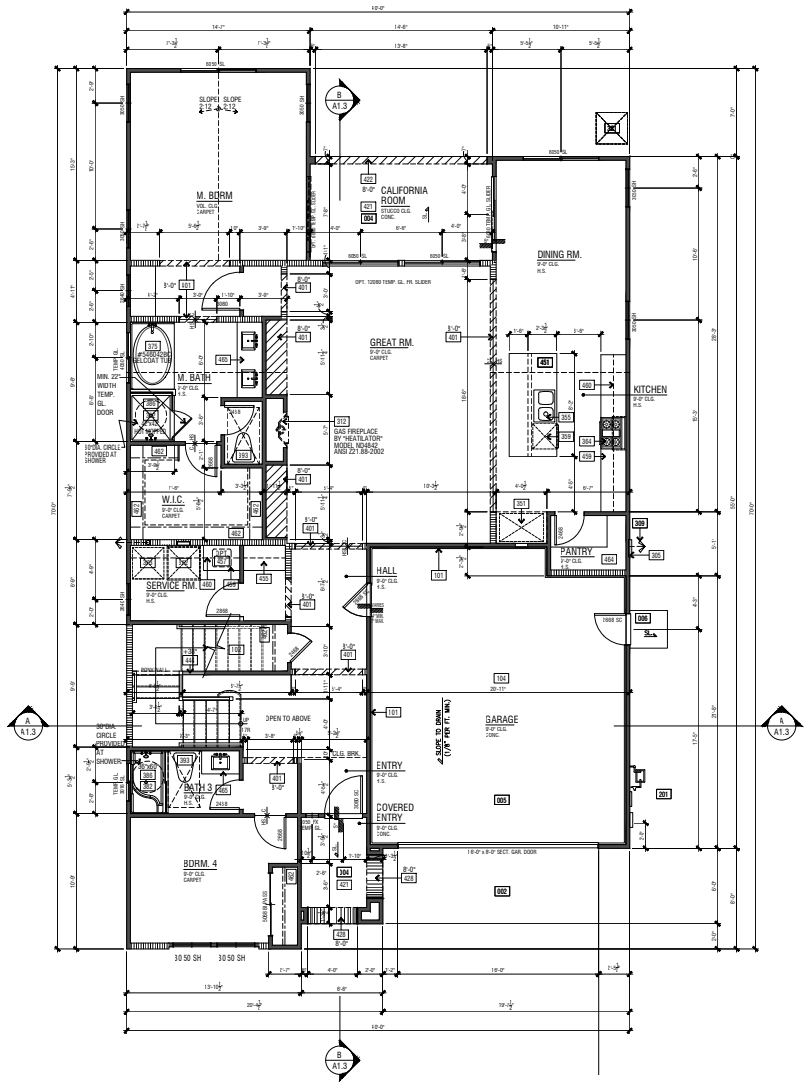
PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

246

A1.5

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18

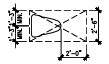

PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
PROVIDE ROUTE FOR FUTURE SOLAR WATER HEATER
125 SQ. FT. OF SOLAR PANELS
ROOF AREA - 'B' 296 SQ. FT.
ROOF AREA - 'A' 1,460 SQ. FT.
ROOF AREA - 'C' 147 SQ. FT.
125 SQ. FT. OF SOLAR PANELS
3.5/12
4/12
4/12
4



LOWER FLOOR PLAN

GL. FR. SLIDER OPT.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



SCALE: 1/4" = 1'-0"

FLOOR AREA TABLE	PLAN 3020A
LOWER FLOOR PLAN	1801 SQ. FT.
UPPER FLOOR PLAN	1219 SQ. FT.
TOTAL	3,020 SQ. FT.
GARAGE	479 SQ. FT.
CALIFORNIA ROOM	120 SQ. FT.
COVERED ENTRY	67 SQ. FT.

FLOOR PLAN KEY NOTES

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RNNAI (RTLS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2010 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
341	14"X8" COMBUSTION AIR VENTS TOP AND BOTTOM - TYP.
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
357	UTILITY SINK
359	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB. SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2803DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED SOFFIT: HEIGHT PER PLAN
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
444	+ 34" - + 38" HANDRAIL (SEE DETAIL TH/DS)
445	+ 42" GUARD (SEE DETAIL TH/DS)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
458	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES

1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310: MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R303.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 (GSBC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.3.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

INTERIOR ELEVATION KEY

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT BEN A. MEHRALIAN C-30179 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 3020

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

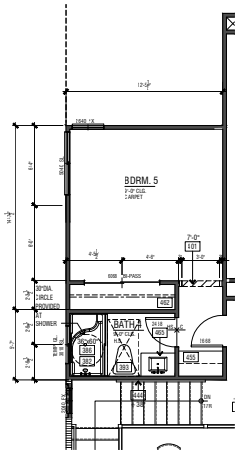
PLAN 3020A - CONTEMPORARY SPANISH

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MM
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

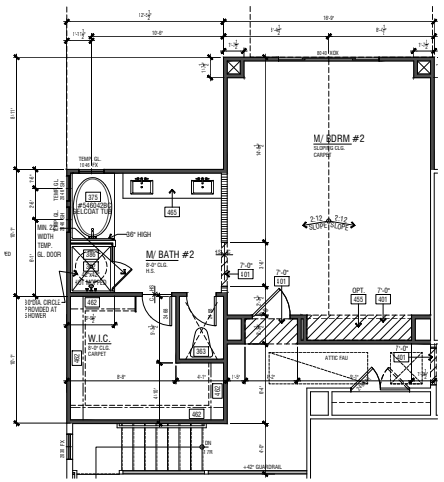
248

A1.0

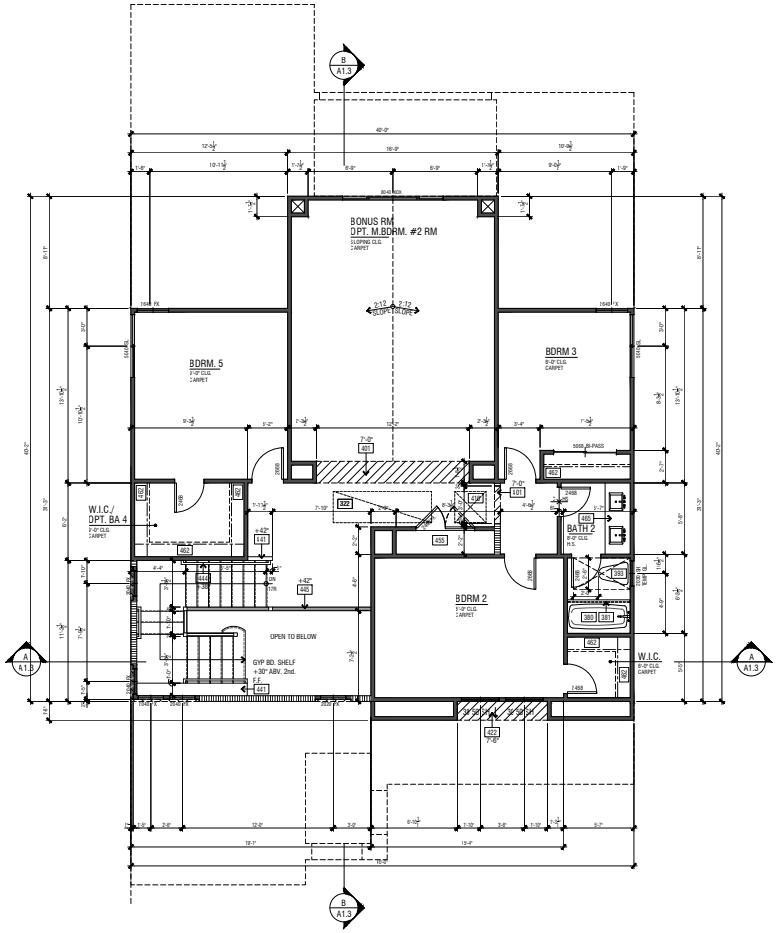
20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



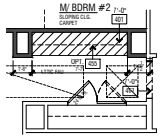
BDRM 5 W/
OPT. BATH 4



M BDRM #2 OPT.

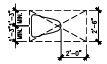


UPPER FLOOR PLAN



LINEN OPT.

REQUIRED FLOOR CLEARANCES AT WATER CLOSETS - TYPICAL



SCALE: 1/4" = 1'-0"

FLOOR PLAN KEY NOTES	
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS). SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE 1/8" PER FOOT MINIMUM IN DIRECTION INDICATED
006	CONCRETE STOOP - 36" DEEP AND 2" WIDER THAN THE DOOR OPENING - SLOPE 1/4" PER FOOT MINIMUM TO DRAIN IN DIRECTION INDICATED
101	GARAGE AND/OR CARPORT SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY MEANS OF A MIN. 1/2" GYP. BD., OR EQUIVALENT, APPLIED TO THE GARAGE SIDE PER CRC SECTION R302.6.
102	ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD PER CRC SECTION R302.7.
104	GARAGE AND/OR CARPORT WITH HABITABLE ROOMS ABOVE SHALL BE SEPARATED FROM THE RESIDENCE BY A MIN. 5/8" TYPE 'X' GYP. BD., OR EQ. STRUCTURE(S) SUPPORTING THE FLR./CLG. ASSEMBLY USED FOR SEPARATION SHALL BE A MIN. 1/2" GYP. BD., OR EQ. PER CRC SEC. R302.6.
110	PROVIDE SOLID WOOD DOOR, OR SOLID OR HONEYCOMB CORE STEEL DOORS, NOT LESS THAN 1-3/8" THICK, OR 20 MINUTE FIRE RATED DOOR. DOORS SHALL BE SELF CLOSING AND SELF LATCHING PER CRC SECTION R302.5.1
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
305	TANKLESS WATER HEATER - MODEL RNNAI (R75LS) - INSTALL PER MANUFACTURER'S INSTRUCTIONS
309	TEMPERATURE AND PRESSURE RELIEF VALVE. DISCHARGE LINE TO THE OUTSIDE OUTSIDE PER CPC SECTION 608.5
312	METAL FIREPLACE (GAS APPLIANCE) - HEIGHT PER PLAN - INSTALL PER MANUFACTURER'S INSTRUCTIONS. MANUFACTURER, MODEL NUMBER AND APPROVAL LISTING PER PLAN. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. (2016 CAL GREEN BLDG STANDARDS 4.503
321	AIR CONDITIONING CONDENSER LOCATION
322	FORCED AIR UNIT (FAU) ATTIC INSALLATION
341	14"X9" COMBUSTION AIR VENTS TOP AND BOTTOM - TYP.
351	REFRIGERATOR SPACE WITH RECESSED COLD WATER BOX
355	SINK WITH GARBAGE DISPOSER
357	UTILITY SINK
359	DISHWASHER - ENERGY STAR
364	30" COOKTOP & EXHAUST HOOD WITH FAN AND LIGHT. EXHAUST VENT TO OUTSIDE
372	WASHER SPACE WITH RECESSED WATER BOX AND DBL. WIDE SMITTY PAN
373	DRYER SPACE
375	DROP-IN TUB: SIZE PER PLAN
380	TUB/ SHOWER - 32"X60" MODEL 2603DT - GELCOAT SURFACE - BY AQUATIC
381	CURTAIN ROD
382	SHATTERPROOF SHOWER DOOR/ ENCLOSURE
386	SHOWER - PREFABRICATED STALL - SIZE PER PLAN
392	PEDESTAL SINK
393	TOILET - PROVIDE MINIMUM 24" X 30" CLEAR FLOOR AREA IN FRONT OF TOILET
401	INTERIOR SOFFIT(S)/ DROPPED CEILING(S): HEIGHT PER PLAN
410	LINE OF FLOOR ABOVE
411	LINE OF FLOOR BELOW
416	30"x30" ATTIC ACCESS - DIMENSIONS ARE CLEAR
421	STUCCO CEILING: HEIGHT PER PLAN
422	STUCCO SOFFIT: HEIGHT PER PLAN
428	ARCHED SOFFIT: HEIGHT PER PLAN
441	GYP. BD. SHELF/LOW WALL - WIDTH AND HEIGHT PER PLAN
444	+ 34" - + 38" HANDRAIL (SEE DETAIL 1H/D5)
445	+ 42" GUARD (SEE DETAIL 1E/D5)
451	KITCHEN ISLAND - PROVIDE APPROVED UNDERGROUND CONDUIT FOR ELECTRIC SERVICE TO ISLAND
453	PANTRY WITH WIRE SHELVING
455	LINEN
459	BASE CABINET
460	UPPER CABINET
462	WIRE SHELF AND POLE
464	WIRE SHELF (OR SHELVES)
465	VANITY

FLOOR PLAN NOTES
1. ATTICS: ACCESS PER CRC R807, DRAFTSTOPS PER CRC R302.12 AND VENTILATION PER R806.
2. EMERGENCY ESCAPE AND RESCUE OPENINGS PER CRC R310. MEANS OF EGRESS PER CRC R311.
3. GLAZING PER CRC R308.1 & R308
4. FACTORY-BUILT FIREPLACES AND CHIMNEYS PER CRC R1004, R1005, R1006 CGBSC SECTION 4.503 & CEnC SECTION 150.0(e).
5. COMBUSTION AIR TO FORCED AIR UNIT PER CMC CHAPTER 7.
6. COMBUSTION AIR TO WATER HEATER PER CPC SECTION 507.3.
7. ENVIRONMENTAL AIR DUCTS PER CMC SECTION 504.
8. MECHANICAL EQUIPMENT LOCATION AND PROTECTION AGAINST DAMAGE PER CMC 305 & 308.
9. MANDATORY REQUIREMENTS FOR APPLIANCES PER CEnC SECTION 110.1.

INTERIOR ELEVATION KEY

FLOOR AREA TABLE	PLAN 3020A
LOWER FLOOR PLAN	1801 SQ. FT.
UPPER FLOOR PLAN	1219 SQ. FT.
TOTAL	3,020 SQ. FT.
GARAGE	479 SQ. FT.
CALIFORNIA ROOM	120 SQ. FT.
COVERED ENTRY	67 SQ. FT.

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT — BEN A. SILVA — STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 3020
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

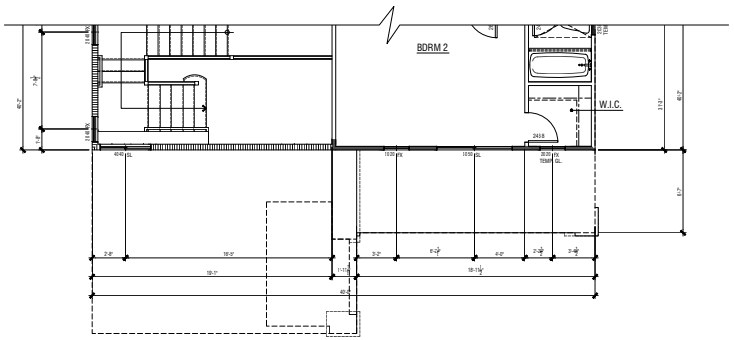
REVISIONS

NO.	DATE	DESCRIPTION

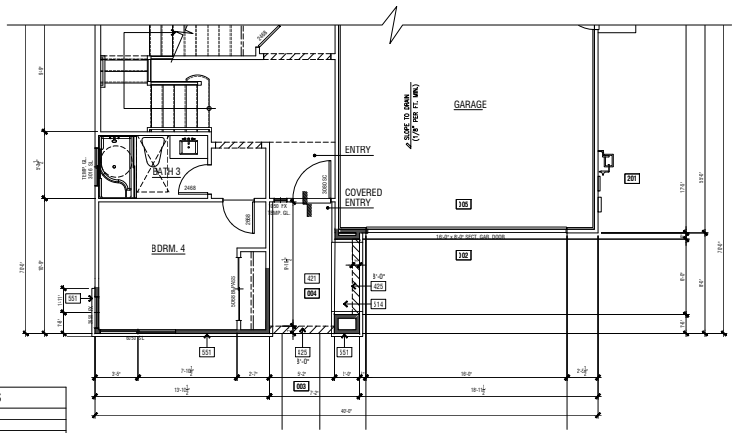
PLAN 3020A - CONTEMPORARY SPANISH

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MM
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	249
CAD FILE NAME :	
DATE: 05-21-18	A1.1

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



PARTIAL UPPER FLOOR PLAN 3020B - MODERN



PARTIAL LOWER FLOOR PLAN 3020B - MODERN

FLOOR AREA TABLE	PLAN 3020B
LOWER FLOOR PLAN	1801 SQ. FT.
UPPER FLOOR PLAN	1219 SQ. FT.
TOTAL	3,020 SQ. FT.
GARAGE	479 SQ. FT.
CALIFORNIA ROOM	120 SQ. FT.
COVERED ENTRY	71 SQ. FT.

FLOOR PLAN KEY NOTES

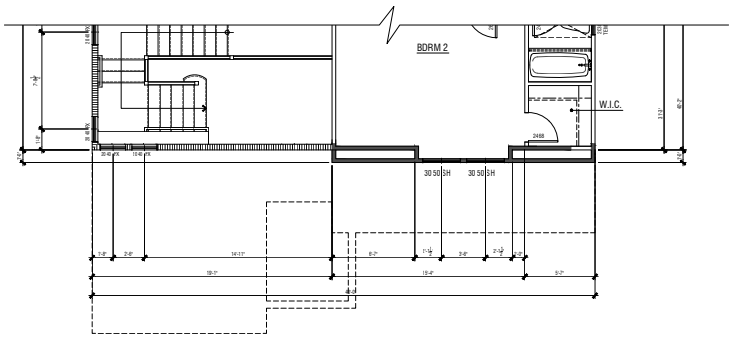
Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
425	WOOD SOFFIT: HEIGHT PER PLAN
446	+ 42" GUARD (SEE DETAIL 11/D4)
471	ELASTOMERIC WATERPROOF DECKING SYSTEM - INSTALL PER MFR. INSTRUCTIONS. SLOPE FRAMING 1/4" PER FOOT MINIMUM FOR DRAINAGE. SHEET FLOW DRAINAGE IN DIRECTION INDICATED
514	WATERPROOFED STONE VENEER SHELF - SLOPE 1/4" PER FOOT
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY "EL DORADO STONE" EC-ES ER-2068

ADDENDA FLOOR PLAN NOTES

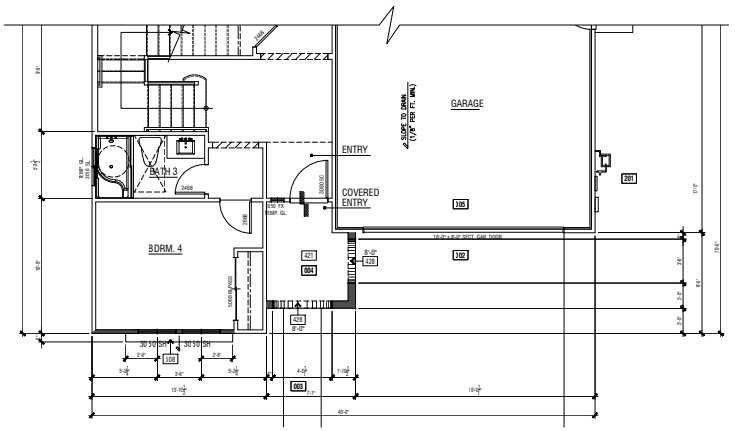
NOTE: SHADED WALLS INDICATE AREAS THAT ARE DIFFERENT THAN THE BASE FLOOR PLAN

NOTE: REFER TO CIVIL AND LANDSCAPE DRAWINGS BY OTHERS FOR ALL DRIVEWAYS AND SIDEWALK LOCATIONS.

REFER TO BASE PLAN SHEET A1.1 FOR ADDITIONAL NOTES AND DIMENSIONS.



PARTIAL UPPER FLOOR PLAN 3028C - PROGRESSIVE NAPA



PARTIAL LOWER FLOOR PLAN 3028C - PROGRESSIVE NAPA

FLOOR AREA TABLE	PLAN 3028C
LOWER FLOOR PLAN	1801 SQ. FT.
UPPER FLOOR PLAN	1227 SQ. FT.
TOTAL	3,028 SQ. FT.
GARAGE	479 SQ. FT.
CALIFORNIA ROOM	120 SQ. FT.
COVERED ENTRY	56 SQ. FT.

Name	NOTE
002	CONCRETE DRIVE (BY OTHERS)
003	CONCRETE WALK (BY OTHERS)
004	CONCRETE PORCH SLAB (BY OTHERS) SLOPE 1/4" PER FOOT MINIMUM IN DIRECTION INDICATED
005	CONCRETE GARAGE SLAB - SLOPE ¼" PER FOOT MINIMUM IN DIRECTION INDICATED
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
421	STUCCO CEILING: HEIGHT PER PLAN
428	ARCHED STUCCO SOFFIT: HEIGHT PER PLAN
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT

SCALE: 1/4" = 1'-0"

ARCHITECTS . PLANNERS . DESIGNERS
WHA
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT WILLIAM HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 3020
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY OR ASSIGNMENT BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

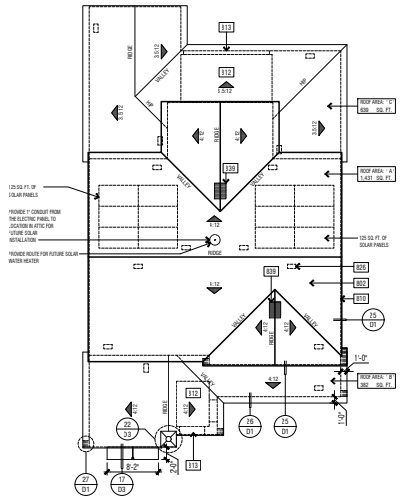
PLAN 3020 PARTIAL FLOOR PLANS 'B' & 'C'

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

250

A1.2

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: A	ELEVATION STYLE: CONTEMPORARY SPANISH				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
LOW PROFILE CONCRETE 'S' TILE BY EAGLE ROOFING ICC# ESR 1900	1 / D1	2X6	NONE	1'-0"	TIGHT

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

ROOF PLAN KEY NOTES

Name	NOTE
B02	CLASS 'A' ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900
B10	LINE OF WALL BELOW
B12	STUCCO CEILING
B13	STUCCO SOFFIT
B26	ROOF VENT - CHASKI "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
B37	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
B39	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA	A	1431 SQ. FT. / 206064 SQ. IN	CALCULATION FACTOR:		1/300	
MIN. VENTILATION REQUIRED:	TOTAL	687 SQ. IN	TOTAL PROVIDED:		780	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	343 SQ. IN	TOTAL HIGH PROVID		390	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	343 SQ. IN	TOTAL LOW PROVID		390	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	x	4		390 SQ. IN
				TOTAL PROVIDED:		390 SQ. IN

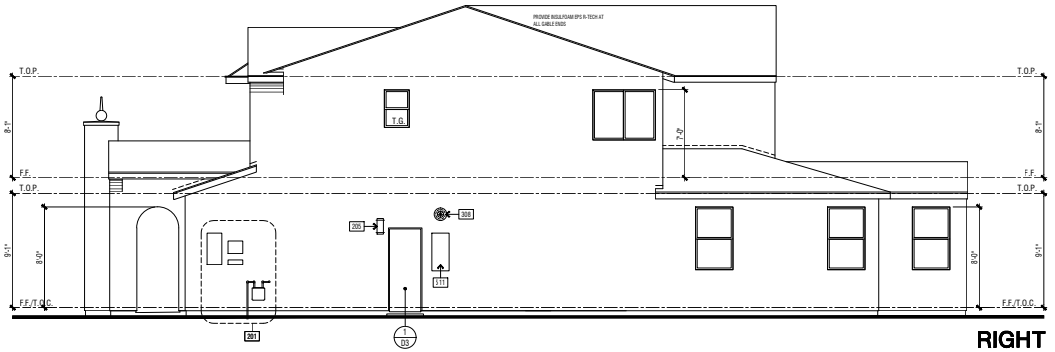
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	x	4		390 SQ. IN
				TOTAL PROVIDED:		390 SQ. IN
ROOF ATTIC AREA	B	382 SQ. FT. / 55008 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	183 SQ. IN		TOTAL PROVIDED:		195 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	92 SQ. IN		TOTAL HIGH PROVID		98 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	92 SQ. IN		TOTAL LOW PROVID		98 SQ. IN

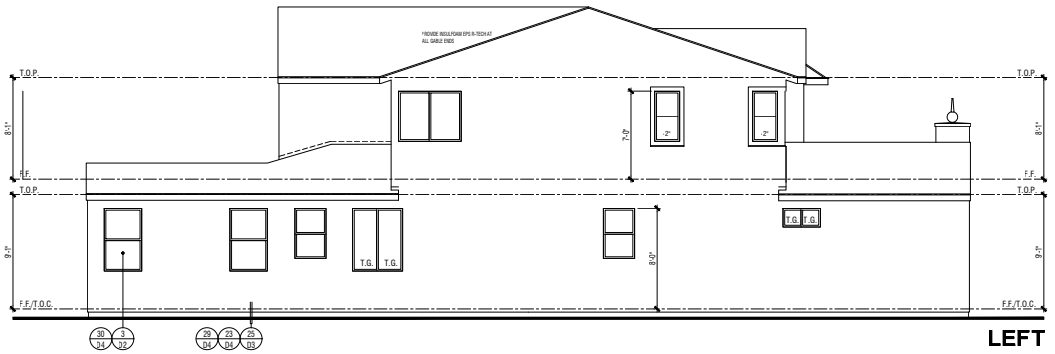
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	x	1		98 SQ. IN
				TOTAL PROVIDED:		98 SQ. IN

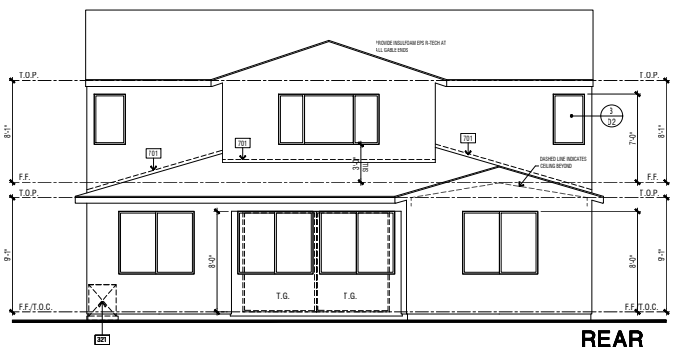
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	x	1		98 SQ. IN
				TOTAL PROVIDED:		98 SQ. IN
ROOF ATTIC AREA	C	639 SQ. FT. / 92016 SQ. IN		CALCULATION FACTOR:		1/300
MIN. VENTILATION REQUIRED:	TOTAL	307 SQ. IN		TOTAL PROVIDED:		390 SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	153 SQ. IN		TOTAL HIGH PROVID		195 SQ. IN
MIN. VENTILATION REQUIRED:	LOW	153 SQ. IN		TOTAL LOW PROVID		195 SQ. IN

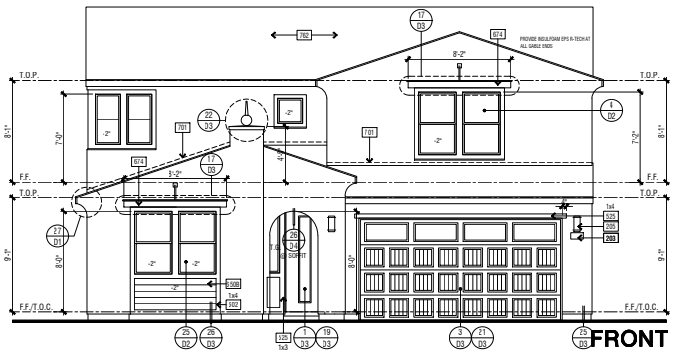
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	x	2		195 SQ. IN
				TOTAL PROVIDED:		195 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC.S-TILE	-	98 SQ. IN	x	2		195 SQ. IN
				TOTAL PROVIDED:		195 SQ. IN









SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
101	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
103	*ADDRESS PANEL - 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
105	*ACCENT EXTERIOR WALL LIGHT
108	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
121	AIR CONDITIONING CONDENSER LOCATION
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	2" STUCCO RECESS. SIZE PER ELEVATION. SLOPE SILL 1/4" PER FT. MINIMUM
516	DECORATIVE FOAM ACCENT - SEE DETAIL
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
562	W/OOD TRIM(S) - SIZE PER ELEVATION
570B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT 2"EDARMILL EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
574	DECORATIVE METAL WINDOW SHADE
701	3.1 FLASHING
762	ROOFING - CONCRETE - 'S' TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT — REN 4.30.19 — STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 3020A - CONTEMPORARY SPANISH - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 3020
CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA
WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.
DO NOT SCALE PLANS

REVISIONS

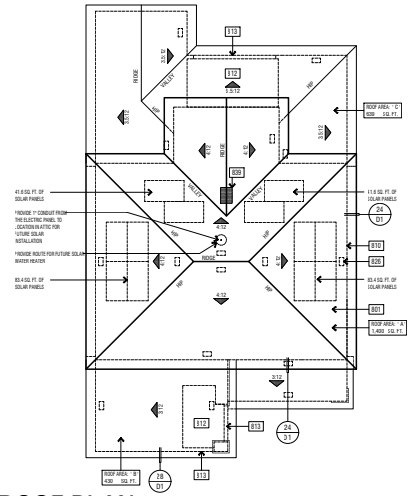
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

251

A1.4

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE:	B	ELEVATION STYLE:	MODERN			
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/31	2X6	2X6	1'-6"	1'-0"

ROOF PLAN NOTES

NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

ROOF PLAN KEY NOTES

Name	NOTE
801	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
810	LINE OF WALL BELOW
812	STUCCO CEILING
813	STUCCO SOFFIT
826	1-100" VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
837	"PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
839	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

ROOF ATTIC AREA	A	1400 SQ. FT.	CALCULATION FACTOR:		1/300
		201600 SQ. IN			
MIN. VENTILATION REQUIRED:	TOTAL	672 SQ. IN	TOTAL PROVIDED:	790	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	336 SQ. IN	TOTAL HIGH PROVID	395	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	336 SQ. IN	TOTAL LOW PROVID	395	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	4		395 SQ. IN
				TOTAL PROVIDED:		395 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	4		395 SQ. IN
				TOTAL PROVIDED:		395 SQ. IN

ROOF ATTIC AREA	B	430 SQ. FT.	CALCULATION FACTOR:		1/300
		61920 SQ. IN			
MIN. VENTILATION REQUIRED:	TOTAL	206 SQ. IN	TOTAL PROVIDED:	395	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	103 SQ. IN	TOTAL HIGH PROVID	198	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	41 SQ. IN	TOTAL LOW PROVID	198	SQ. IN

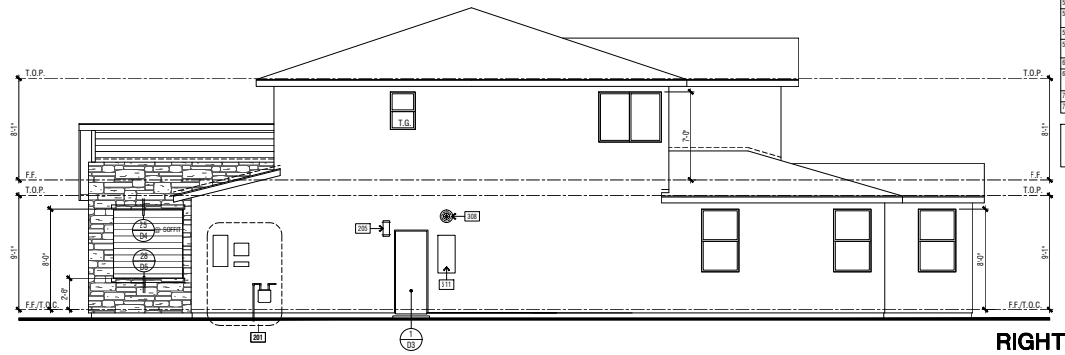
HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

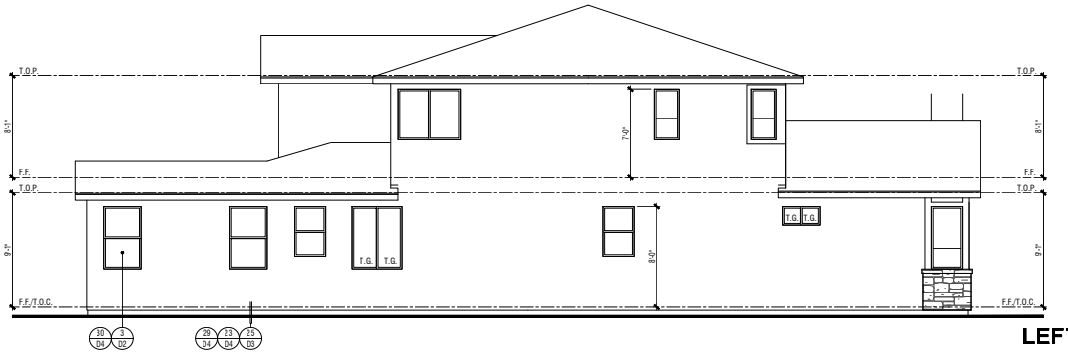
ROOF ATTIC AREA	C	639 SQ. FT.	CALCULATION FACTOR:		1/300
		92016 SQ. IN			
MIN. VENTILATION REQUIRED:	TOTAL	307 SQ. IN	TOTAL PROVIDED:	395	SQ. IN
MIN. VENTILATION REQUIRED:	HIGH	153 SQ. IN	TOTAL HIGH PROVID	198	SQ. IN
MIN. VENTILATION REQUIRED:	LOW	153 SQ. IN	TOTAL LOW PROVID	198	SQ. IN

HIGH VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN

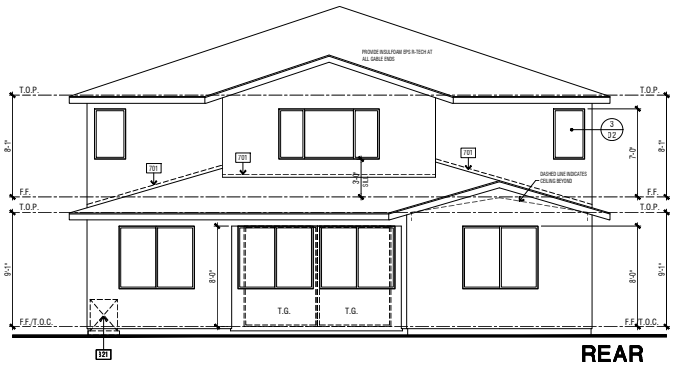
LOW VENTILATION METHOD	SIZE	FREE AREA		QUANTITY		FREE VENT AREA
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	2		198 SQ. IN
				TOTAL PROVIDED:		198 SQ. IN



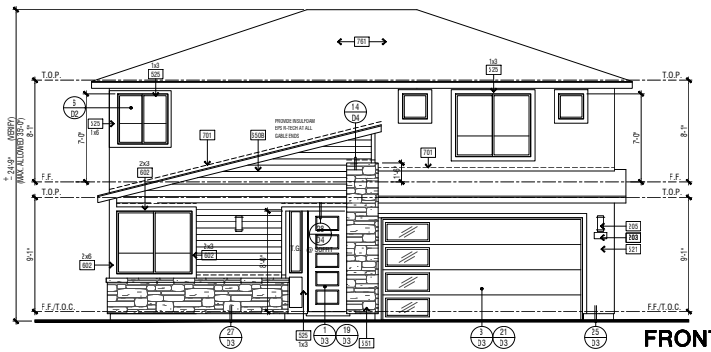
RIGHT



LEFT



REAR



FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
308	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-AXIAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
551	MANUFACTURED ADHERED STUCCO STONE VENEER - INSTALL PER MANUFACTURER'S INSTRUCTIONS. BY 'EL DORADO STONE' ICC-ES ER-3568
602	WOOD TRIM(S) - SIZE PER ELEVATION
606B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS. THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS

WHA.

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT MICHAEL HEZMALHALCH REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 3020B - MODERN - EXTERIOR ELEVATIONS & ROOF PLAN

PLAN 3020

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

©2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY ANYONE OTHER BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

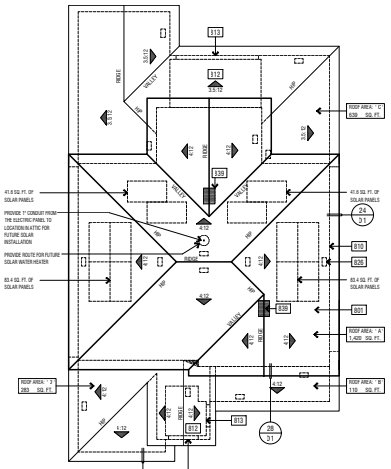
NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

252

A1.5

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18



ROOF PLAN

SCALE: 1/8" = 1'-0"

ELEVATION REFERENCE: C	ELEVATION STYLE: PROGRESSIVE NAPA				
ROOF MATERIAL	STANDARD ROOF DETAIL U.N.O.	FASCIA - U.N.O.	BARGE - U.N.O.	OVERHANG DIM. - U.N.O. EAVE	RAKE
CONCRETE 'FLAT' TILE BY EAGLE ROOFING ICC# ESR 1900	3/31	2X6	2X6	1'-0"	1'-0"

ROOF PLAN NOTES

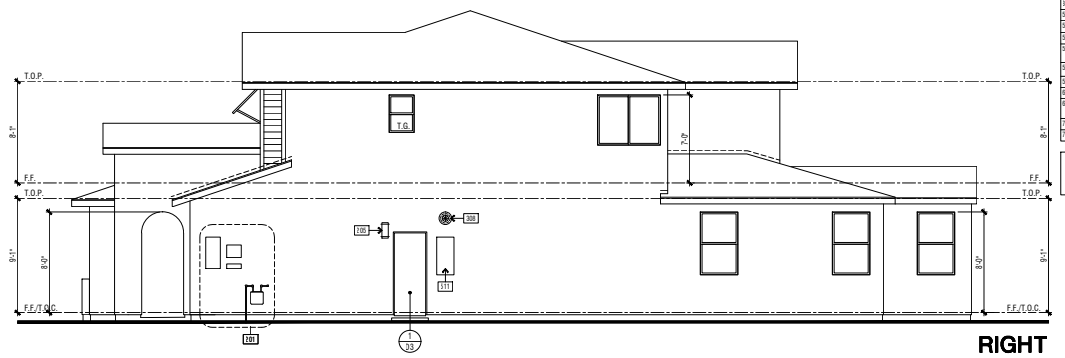
NOTE: MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS PER CEnC SECTION 110.10.

1. SEE GENERAL NOTES FOR ROOF NOTES.
2. SPARK ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ATTIC ACCESS PER CRC SECTION R807.
4. PROVIDE ATTIC & SOFFIT VENTILATION PER CRC SECTION R806. PER CRC SECTION R806.2, THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:
   1. IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
   2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

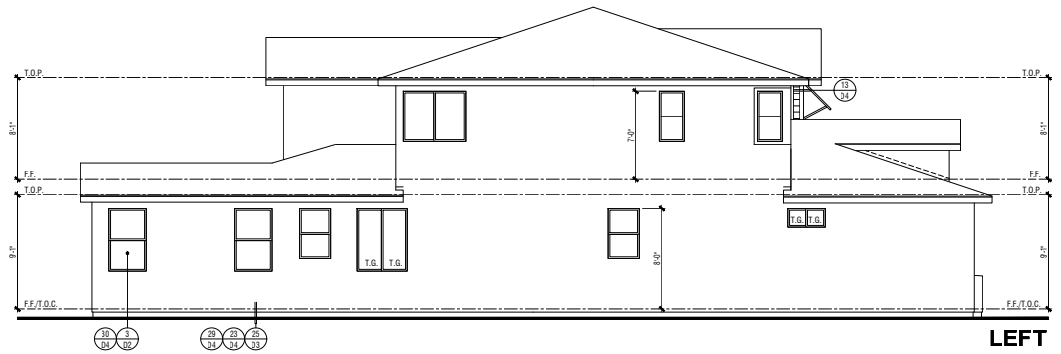
ROOF PLAN KEY NOTES

Name	NOTE
001	CLASS 'A' ROOFING - CONCRETE - 'FLAT' TILE - BY EAGLE ROOFING ICC# ESR 1900
010	LINE OF WALL BELOW
013	STUCCO CEILING
015	STUCCO SOFFIT
026	ROOF VENT - O'HAGIN "XL SERIES" CLOAKED VENT (ICC # NER-9650A)
037	PROVIDE 1" CONDUIT FROM THE ELECTRIC PANEL TO LOCATION IN ATTIC FOR FUTURE SOLAR INSTALLATION.
039	MIN. 22"x30" OPENING IN CALIFORNIA ROOF FRAMING CONDITIONS FOR ATTIC ACCESS AND CROSS VENTILATION - CONTRACTOR TO VERIFY AIRFLOW TO ALL ATTIC AREAS

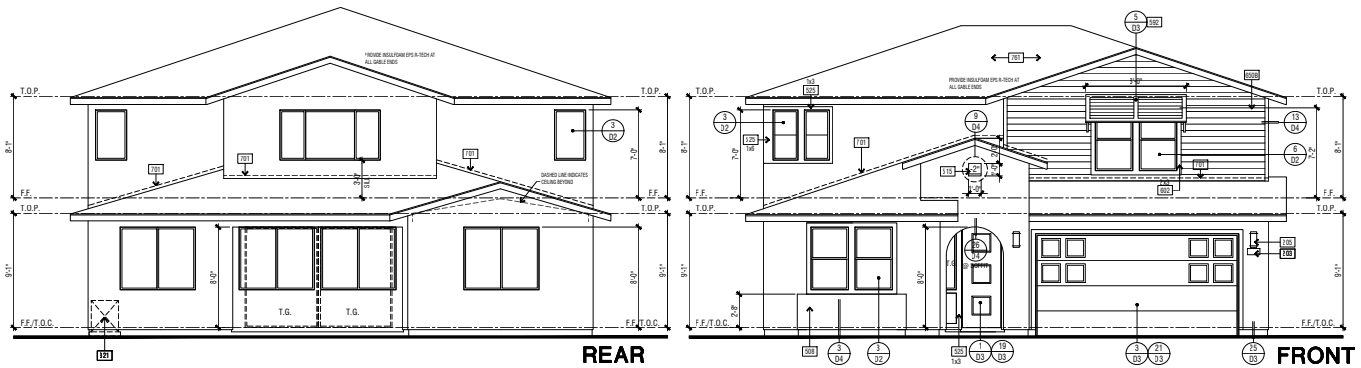
ROOF ATTIC AREA	A	1420 SQ. FT. / 204480 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	682 SQ. IN	TOTAL PROVIDED:	790 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	341 SQ. IN	TOTAL HIGH PROVID	395 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	341 SQ. IN	TOTAL LOW PROVID	395 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	4	395 SQ. IN	
				TOTAL PROVIDED:	395 SQ. IN	
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	4	395 SQ. IN	
				TOTAL PROVIDED:	395 SQ. IN	
ROOF ATTIC AREA	B	110 SQ. FT. / 15840 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	53 SQ. IN	TOTAL PROVIDED:	198 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	26 SQ. IN	TOTAL HIGH PROVID	99 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	26 SQ. IN	TOTAL LOW PROVID	99 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	1	99 SQ. IN	
				TOTAL PROVIDED:	99 SQ. IN	
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	1	99 SQ. IN	
ROOF ATTIC AREA	C	639 SQ. FT. / 92016 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	307 SQ. IN	TOTAL PROVIDED:	395 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	153 SQ. IN	TOTAL HIGH PROVID	198 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	153 SQ. IN	TOTAL LOW PROVID	198 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	2	198 SQ. IN	
				TOTAL PROVIDED:	198 SQ. IN	
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	2	198 SQ. IN	
				TOTAL PROVIDED:	198 SQ. IN	
ROOF ATTIC AREA	D	283 SQ. FT. / 40752 SQ. IN	CALCULATION FACTOR:	1/300		
MIN. VENTILATION REQUIRED:	TOTAL	136 SQ. IN	TOTAL PROVIDED:	198 SQ. IN		
MIN. VENTILATION REQUIRED:	HIGH	68 SQ. IN	TOTAL HIGH PROVID	99 SQ. IN		
MIN. VENTILATION REQUIRED:	LOW	68 SQ. IN	TOTAL LOW PROVID	99 SQ. IN		
HIGH VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	1	99 SQ. IN	
				TOTAL PROVIDED:	99 SQ. IN	
LOW VENTILATION METHOD	SIZE	FREE AREA	QUANTITY		FREE VENT AREA	
CLOAKED VENT - CONC. FLAT TILE -		99 SQ. IN	X	1	99 SQ. IN	
				TOTAL PROVIDED:	99 SQ. IN	



RIGHT



LEFT



REAR

FRONT

SCALE: 1/4" = 1'-0"

ELEVATION KEY NOTES

Name	NOTE
201	UTILITY EQUIPMENT AND SERVICE PANELS - VERIFY LOCATION
203	ADDRESS PANEL. 6" MIN. HIGH BUILDING ADDRESS CHARACTERS PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE FROM THE STREET.
205	ACCENT EXTERIOR WALL LIGHT
108	TANKLESS WATER HEATER TERMINATION CAP - INSTALL PER MFR. INSTRUCTIONS (CO-ANAL VENT INTAKE & EXHAUST DIRECTLY FROM OUTSIDE)
121	AIR CONDITIONING CONDENSER LOCATION
508	WATERPROOFED STUCCO SHELF - SLOPE 1/4" PER FOOT
511	RECESS BOX FOR TANKLESS WATER HEATER - INSTALL PER MFR. INSTRUCTIONS
515	STUCCO NICHE. SIZE PER ELEVATION - SLOPE SILL 2" PER FT. MINIMUM
521	STUCCO - INSTALL PER MANUFACTURER'S LISTING BY: OMEGA DIAMOND WALL ONE COAT SYSTEM ICC-ES ESR-1194
525	STUCCO OVER RIGID FOAM TRIM - FOAM SHAPE PER ELEVATION
592	OVERHEAD SHUTTER - SIZE AND STYLE PER ELEVATION
602	WOOD TRIM(S) - SIZE PER ELEVATION
605B	FIBER CEMENT LAP SIDING - 5/16" THICK 'HARDIPLANK' (OR EQUIVALENT. FINISH: SELECT CEDARMILL. EXPOSURE: 8" (INSTALLATION PER MANUFACTURER'S INSTRUCTIONS)
701	G.I. FLASHING
761	ROOFING - CONCRETE - FLAT TILE - BY EAGLE ROOFING ICC# ESR 1900

ANY OPERABLE WINDOW WITH A SILL THAT IS LOCATED LESS THAN 24" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE OR OTHER SURFACE BELOW AT THE EXTERIOR, MUST BE PROTECTED BY A GUARD OR, HAVE A FIXED GLASS, THE GUARD MAY NOT HAVE OPENINGS THAT A SPHERE 4" IN DIAMETER CAN PASS THROUGH. 2016 CBC 1405.13.2

ARCHITECTS . PLANNERS . DESIGNERS

WHA

ORANGE COUNTY . LOS ANGELES . BAY AREA

REGISTERED ARCHITECT BEN A. SILVA REN 4.30.19 STATE OF CALIFORNIA

WILSON HOMES

SFD

PLAN 3020

CLOVIS, CA

WILSON HOMES
FRESNO, CALIFORNIA

© 2018 WILLIAM HEZMALHALCH ARCHITECTS, INC. dba WHA

WHA EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY, WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF WHA. IN THE EVENT OF UNAUTHORIZED REUSE BY YOU OR BY A THIRD PARTY, YOU THIRD PARTY SHALL HOLD WHA HARMLESS.

DO NOT SCALE PLANS

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER :	MM
DESIGNER :	BH
DRAWN BY :	MH
REVIEWED BY :	-
1ST BLDG. DEPT. SUBMITTAL :	
ISSUED FOR CONSTRUCTION :	
JOB NUMBER :	
CAD FILE NAME :	
DATE:	05-21-18

253

A1.6

PLAN 3028C - PROGRESSIVE NAPA - EXTERIOR ELEVATIONS & ROOF PLAN

20130052.14 - FIRST BUILDING DEPARTMENT SUBMITTAL- 05-21-18

PUBLIC REVIEW DRAFT

TRACT MAP 6343
INITIAL STUDY

CLOVIS, CALIFORNIA

LSA

December 2022

Attachment 10

This page intentionally left blank

PUBLIC REVIEW DRAFT

TRACT MAP 6343
INITIAL STUDY

CLOVIS CALIFORNIA

Submitted to:

Lily Cha, Senior Planner
Planning and Development Services
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
2565 Alluvial Avenue, Suite 172
Clovis, California 93611
(559) 490-1210

Project No. CIT2201

LSA

December 2022

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS i
FIGURES AND TABLES ii
LIST OF ABBREVIATIONS AND ACRONYMS iii
1.0 PROJECT INFORMATION 1-1
2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 2-1
2.1 Determination 2-1
3.0 CEQA ENVIRONMENTAL CHECKLIST 3-1
3.1 Aesthetics 3-1
3.2 Agriculture and Forestry Resources 3-5
3.3 Air Quality 3-9
3.4 Biological Resources 3-13
3.5 Cultural Resources 3-20
3.6 Energy 3-24
3.7 Geology and Soils 3-26
3.8 Greenhouse Gas Emissions 3-30
3.9 Hazards and Hazardous Materials 3-32
3.10 Hydrology and Water Quality 3-36
3.11 Land Use and Planning 3-42
3.12 Mineral Resources 3-44
3.13 Noise 3-45
3.14 Population and Housing 3-51
3.15 Public Services 3-53
3.16 Recreation 3-56
3.17 Transportation 3-57
3.18 Tribal Cultural Resources 3-61
3.19 Utilities and Service Systems 3-63
3.20 Wildfire 3-67
4.0 LIST OF PREPARERS 4-1
5.0 REFERENCES 5-1

APPENDICES

A: AB 52 CONSULTATION REQUEST AND RESPONSE LETTERS
B: WATER INFRASTRUCTURE INVESTIGATION
C: WATER SUPPLY ASSESSMENT

FIGURES AND TABLES

FIGURES

Figure 1-1: Regional and Local Context 1-7
Figure 1-2: Aerial Photograph of the Project Site and Surrounding Land Uses 1-9
Figure 1-3: General Site Plan 1-11
Figure 1-4: South: Phase 1 1-13
Figure 1-5: Central: Phase 2 1-15
Figure 1-6: North: Phase 3 1-17

TABLES

Table 3.A: SJVAPCD Construction and Operation Thresholds of Significance (tons/yr) 3-10
Table 3.B: City of Clovis Maximum Exterior Noise Standards 3-47
Table 3.C: City of Clovis Maximum Interior Noise Standards 3-47
Table 3.D: Typical Construction Equipment Noise Levels 3-48

LIST OF ABBREVIATIONS AND ACRONYMS

$\mu g/m^3$	micrograms per cubic meter
AB 52	Assembly Bill 52
Active Transportation Plan	2021 Clovis Active Transportation Plan Update
AF	acre-feet
AFY	acre-feet per year
AFY/ac	acre-feet per year per acre
Air Basin	San Joaquin Valley Air Basin
ALUCP	Airport Land Use Compatibility Plan
APN	Assessor Parcel Numbers
BMPs	Best Management Practices
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFD	Clovis Fire Department
CH_4	methane
City	City of Clovis
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPD	Clovis Police Department
CRA	Cultural Resource Assessment
CUSD	Clovis Unified School District
db	decibels
dBA	A-weighted decibels
DTSC	California Department of Toxic Substances Control

EIR	Environmental Impact Report
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FID	Fresno Irrigation District
FMFCD	Fresno Metropolitan Flood Control District
FMMP	Farmland Mapping and Monitoring Program
Fresno LAFCo	Fresno County Local Agency Formation Commission
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
gpm	gallons per minute
GWP	Global Warming Potential
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HP	helipad
HQTA	High-Quality Transit Area
IPaC	Information for Planning and Consultation
L_{dn}	day-night average level
L_{eq}	equivalent continuous sound level
LESA	Land Evaluation and Site Assessment
L_{max}	maximum instantaneous noise level
LOS	level of service
LRA	Local Responsibility Area
MRZ-3	Mineral Resource Zone 3
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PFCs	perfluorocarbons
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size

ppb	parts per billion
PRC	Public Resources Code
RWQCB	Regional Water Quality Control Board
RWRF	Regional Wastewater Reclamation Facility
SB 2	Senate Bill 2
SB 743	Senate Bill 743
SB 1383	Senate Bill 1383
SF_6	sulfur hexafluoride
SHTAC	Swainson's Hawk Technical Advisory Committee
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SOI	Sphere of Influence
SR-168	State Route 168
SWPPP	Stormwater Pollution Prevention Plan
SWQMP	Storm Water Quality Management Program
SWRCB	State Water Resources Control Board
TCRs	Tribal Cultural Resources
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled

This page intentionally left blank

1.0 PROJECT INFORMATION

1. **Project Title:**
   Tract Map 6343

2. **Lead Agency Name and Address:**
   City of Clovis
   1033 Fifth Street
   Clovis, CA 93612

3. **Contact Person and Phone Number:**
   Lily Cha, Senior Planner
   (559) 324-2335
   lilyc@cityofclovis.com

4. **Project Location:**
   Southwest of the intersection of East Behymer Avenue and North Sunnyside Avenue.
   Assessor Parcel Numbers (APNs): 556-040-07S, 556-040-08S, 556-030-14S

5. **Project Sponsor's Name and Address:**
   Wilson Premier Homes, Inc.
   7550 North Palm Avenue, Suite 102
   Fresno, CA 93711

6. **General Plan Designation:**
   Medium Density Residential

7. **Zoning:**
   Exclusive Agricultural District (AE-20) (Fresno County)

8. **Description of Project:**
   The proposed project would consist of the annexation of 246 acres by the City of Clovis (City), and the development of 590 residential lots in a 71.54-acre project site. Average lot size would be 3,329 square feet. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City. Any future development occurring within the annexation area would require a separate project-specific analysis.

   The project site is located on the southwest quadrant of the intersection between East Behymer Avenue and North Sunnyside Avenue, as shown on Figure 1-1. The project site is located within the City of Clovis' existing Sphere of Influence (SOI) and within the Northwest Urban Center area identified in the 2014 City of Clovis General Plan, now referred to as Heritage Grove. As such, this area is already planned and designated for urban growth and environmentally evaluated at

the programmatic level in the City's General Plan Environmental Impact Report (EIR).[1] The project site is currently being used for agriculture and contains one existing dwelling unit and associated structures. Parcel APN 556-030-14S of the project site is currently under a Williamson Act contract; however, a petition for a contract cancellation is currently in progress. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin (Basin BY), and Tract Map 6200 to the east. Figure 1-2 shows the project site and surrounding land uses.

The proposed project would be developed over a period of approximately 33 months and over three Phases. There would also be 66 outlot spaces included in the proposed residential development. Although the site plan does not provide details on what would be constructed in these spaces, potential uses for the outlots would include private road, private parking, private pedestrian, private landscaping, public utility, and public park uses. The proposed project would include the removal of one existing 2,679-square-foot dwelling unit and garage, an existing propane tank, a 2,000-square-foot pole barn, two sheds of 1,785-square-foot and 2,250-square-foot dimensions, and an existing driveway on the project site. Figure 1-3 shows the site plan for the proposed project.

Phase 1 of the proposed project would include the development of 136 single-family residential units with an average size of 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress driveway located on Perrin Avenue. Phase 1 would include the construction of 44 parking spaces, an 8,745-square-foot community pool and recreation area, a 13,930-square-foot community park, a 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin Avenue and Hammel Avenue within the project site would be constructed during Phase 1. Figure 1-4 shows a site plan of Phase 1 of the proposed project.

Phase 2 of the proposed project would include the development of 214 single-family residential units with an average size of 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress driveway located along the future southern extension of North Baron Avenue, and one driveway along Hammel Avenue. Phase 2 would include the construction of a 26-foot-wide drainage channel along Perrin Avenue, a 0.35 acre of landscaped areas, and storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue. Figure 1-5 shows a site plan of Phase 2 of the proposed project.

Phase 3 of the proposed project would include the development of 240 single-family residential units with an average size of 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and

[1] City of Clovis. 2014. General Plan and Development Code Update PEIR. Website: https://cityofclovis.com/planning-and-development/planning/master-plans/general-plan/environmental-impact-report/ (accessed December 8, 2022).

egress driveways located along the future southern extension of North Baron Avenue, and through one gated driveway located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of 91 parking spaces, a 9,985-square-foot pool and recreation area, a 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along North Baron Avenue. Figure 1-6 shows a site plan of Phase 3 of the proposed project.

Water supply for the proposed project would be provided by the City of Clovis. The project would require the construction of a 24-inch water main along Behymer Avenue from Clovis Avenue to Baron Avenue. Additionally, the project would construct a 24-inch main along Baron Avenue, from Behymer Avenue to Perrin Avenue. The proposed improvements would be consistent with the City's Water Master Plan and the City's specifications on materials, depth, and resurfacing.

Wastewater services for the proposed project would be provided by the City of Clovis. The proposed project would connect to an existing wastewater main within the right-of-way of North Baron Avenue.

The FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site and redirected towards FMFCD Basin BY, which is located adjacent to the project site's eastern boundary.

In addition, a 1,300-foot-long, 26-foot-wide drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows west from the project site towards drainage infrastructure along the Enterprise Canal.

Storm drainage pipelines would be constructed along North Baron Avenue and along interior roadways in the project site to drain stormwater from the project site towards Basin BY. These storm drainage facilities would be constructed pursuant to requirements of the FMFCD Master Plan.

Solid waste collection for the project site would be provided by the City of Clovis, and recycling and green waste collection would be provided by Republic Services.

Electricity and natural gas services for the proposed project would be supplied by PG&E through connections to existing service lines. Telecommunication services to the project site would be provided by Comcast and AT&T.

Access to the project site would be provided by East Behymer Avenue and by a southern extension of North Baron Avenue, to be constructed during Phase 1 of the proposed project along the eastern boundary of the project site. The proposed project would construct approximately 2,650 feet of North Baron Avenue south of East Behymer to connect with the existing stretch of North Baron Avenue located southeast of the project site. This portion of North Baron Avenue would be approximately 49 feet wide and have two lanes. A 20-foot-wide

parkway containing a 6-foot-wide pedestrian sidewalk and landscaped areas would be included along the western side of North Baron Avenue along the project site. A 16-foot-wide parkway containing a 6-foot-wide pedestrian sidewalk and landscaped area that is reduced from the Heritage Grove Neighborhood Boulevard Street section would be included along the eastern side of North Baron Avenue, along the FMFCD Basin BY frontage. The eastern side of North Baron Avenue that is north of Basin BY will ultimately be built out with a 20-foot-wide parkway, matching the Heritage Grove Neighborhood Boulevard Street section. However, this section of the parkway will not be constructed with Tract 6343 in order to minimize the impact on the adjacent rural residential property. The pedestrian walk will continue north of Basin BY to East Behymer Avenue with Tract 6343, but will temporarily be constructed to share a combination pedestrian and widened bike lane as approved by the City Engineer with the project design plans.

To access the project site, three gated ingress and egress driveways would be constructed along the southern extension of North Baron Avenue. One gated ingress and egress driveway would also be constructed along Hammel Avenue. A temporary secondary access connecting Hammel Avenue to North Baron Avenue would be constructed along the northern end of Hammel Avenue during Phase 3. One gated ingress and egress driveway and one gated emergency access driveway would be constructed along Perrin Avenue.

Vehicle circulation within the project site would be provided by a network of two-way, 37.2-foot-wide private streets. Internal roadways within the project site would include Hammel Avenue, which is located along the project site's western boundary, and Perrin Avenue, which crosses the project site west to east.

9. Surrounding Land Uses and Setting:

The 71.54-acre project site is located in the City of Clovis' SOI, within the Northwest Urban Center area identified in the City's General Plan that is now referred to as Heritage Grove. The surrounding 246-acre annexation area encompasses the project site. The project site and annexation area include existing residential and agricultural uses. The project site and annexation area are surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

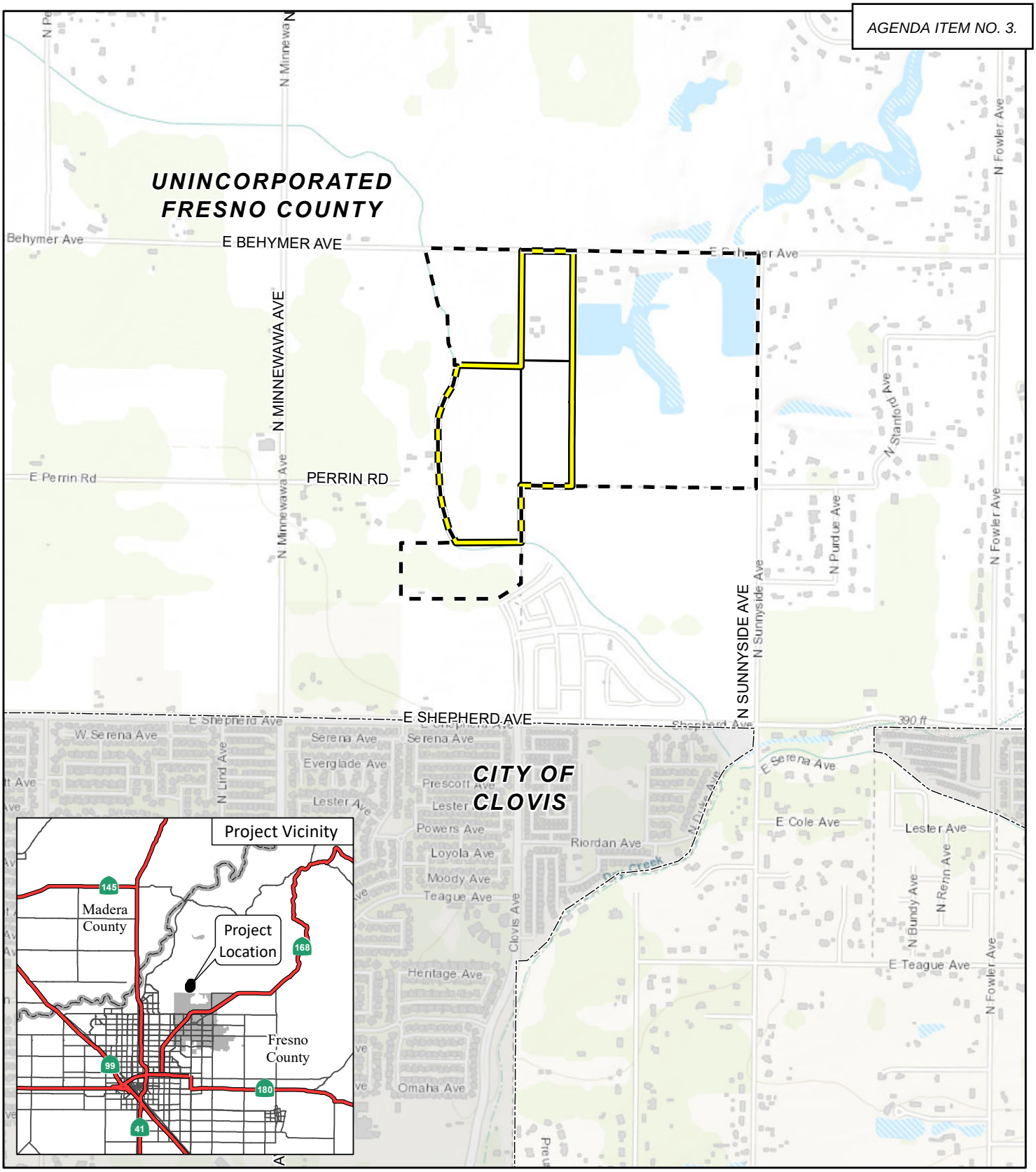
- County of Fresno/City of Clovis – Williamson Act Contract Cancellation
- Fresno Local Agency Formation Commission – Annexation
- State Water Resources Control Board – National Pollutant Discharge Elimination System (NPDES) General Permit (with requisite Storm Water Pollution Prevention Plan, Conceptual Storm Water Pollution Prevention Plan, and Permanent Control Measures)

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In compliance with Assembly Bill 52 (AB 52), on November 4, 2022, the City sent letters regarding the proposed project to Big Sandy Rancheria of Western Mono Indians, Cold Springs Rancheria of Mono Indians, Dumna Wo-Wah Tribal Government, Kings River Choinumni Farm Tribe, North Fork Rancheria of Mono Indians, North Valley Yokuts Tribe, Picayune Rancheria of Chuckchansi Indians, Table Mountain Rancheria, Traditional Choinumni Tribe, Tule River Indian Tribe, and Wuksache Indian Tribe/Eshom Valley Band tribes based on the list of tribes provided by the Native American Heritage Commission (NAHC). Table Mountain Rancheria sent a response to the City on November 15, 2022, requesting the Cultural Resources Assessment[2] prepared for the project, and did not request any further consultation. No further responses or requests for consultation were received by the City within the 30-day consultation period beginning November 4, 2022, and ending December 3, 2022. As such, AB 52 requirements for the proposed project have been fulfilled. AB 52 consultation request and response letters are included in Appendix A of this Initial Study.

[2] Peak & Associates, Inc. 2022. Cultural Resource Assessment for the Tentative Tract Map 6343 and City of Clovis Annexation Area, County of Fresno, California. September 21.

This page intentionally left blank



LSA

LEGEND

- Project Location
- Parcel Boundary
- Annexation Boundary
- Clovis City Limit

0 750 1500
FEET

FIGURE 1-1

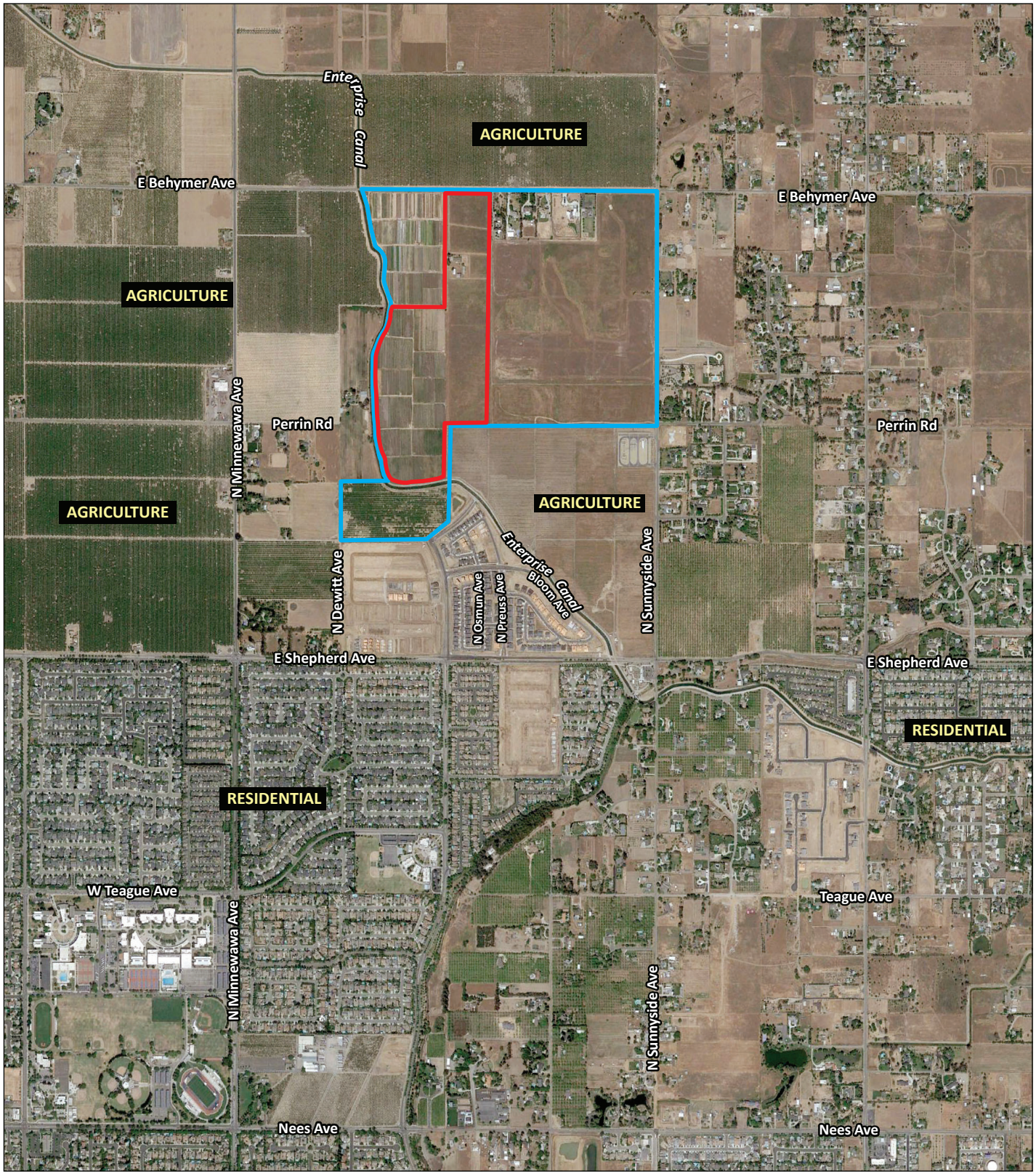
Tract Map 6343

Regional and Local Context

SOURCE: Esri Streetmap (2021)

\\lsaazfiles.file.core.windows.net\images\CIT2201\GIS\MXD\Regional_Local_Context.mxd (12/6/2022)

This page intentionally left blank



LSA

Project Site TM-6343 Boundary

Annexation Boundary

N

0 1000 2000

FEET

FIGURE 1-2

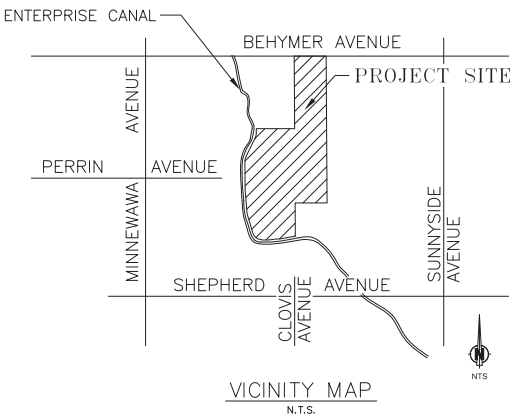
Tract Map 6343

Aerial Photograph of the Project Site and Surrounding Land U

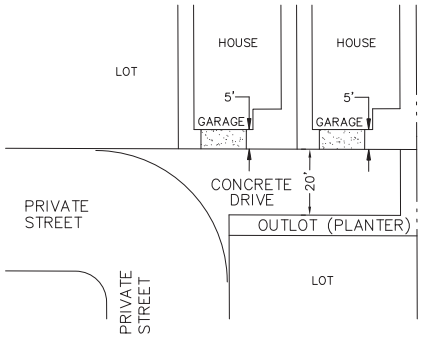
SOURCES: Google Earth 4/21/2021; LSA, 2022

I:\CIT2201\G\Aerial Photo of Site&Surrounding LU.ai (12/6/2022)

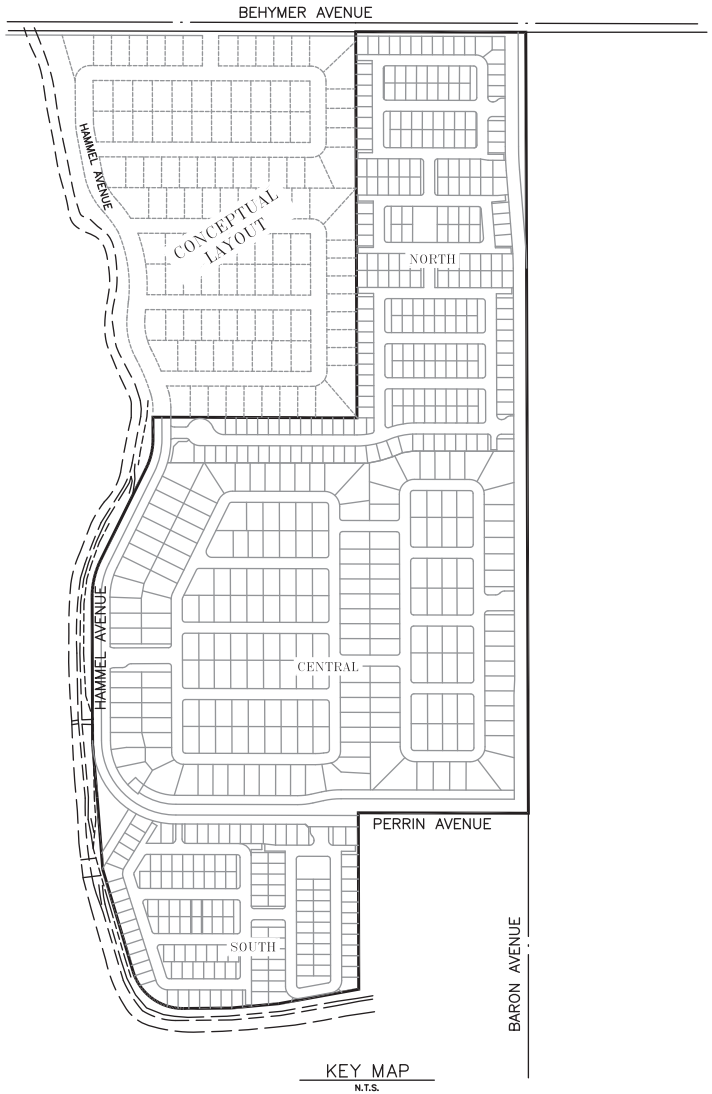
This page intentionally left blank



VICINITY MAP
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.



KEY MAP
N.T.S.

LSA

FIGURE 1-3

N

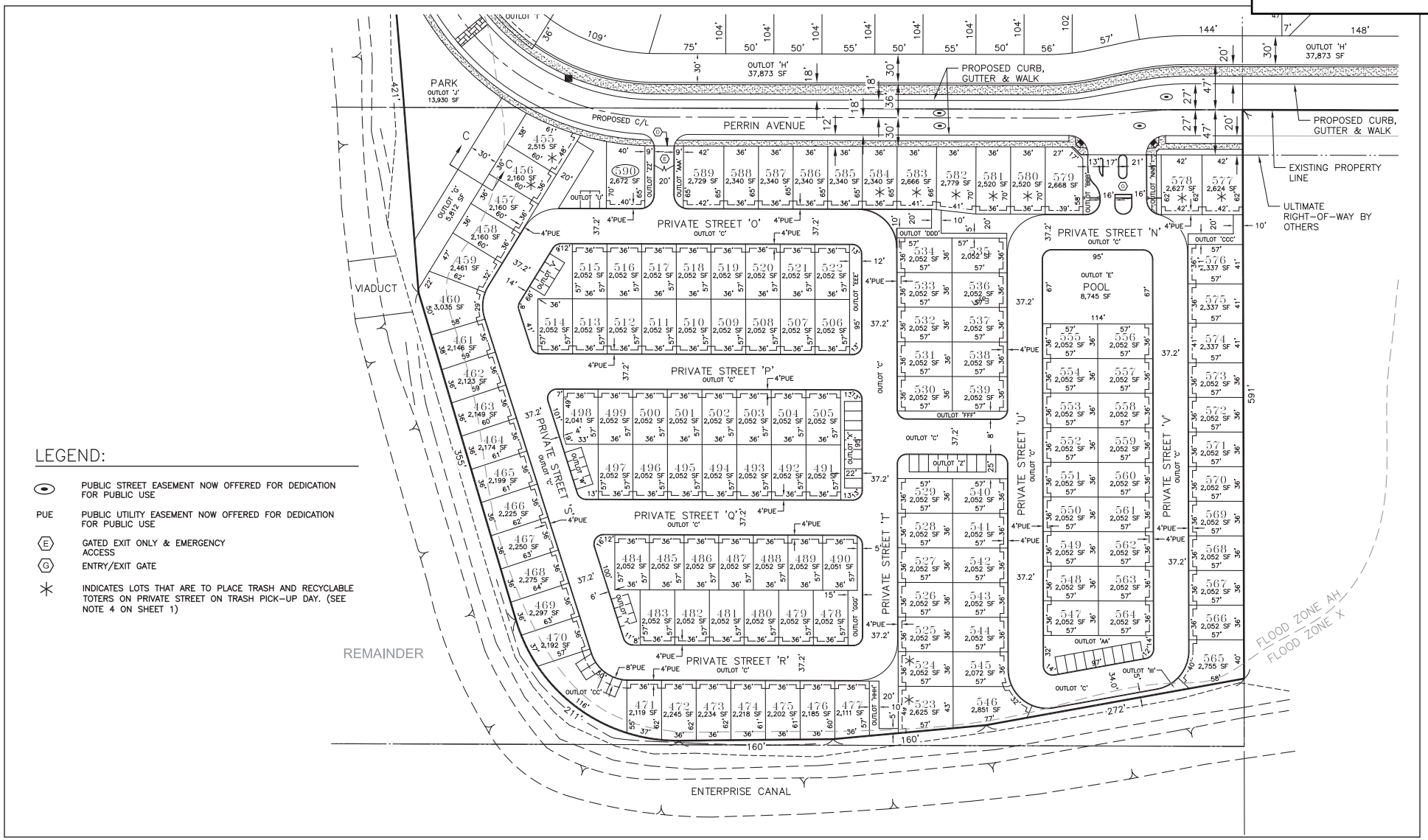
NOT TO SCALE

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\General Site Plan.ai (9/22/2022)

Tract Map 6343
General Site P

This page intentionally left blank



LEGEND:

- PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- PUE — PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- (E) — GATED EXIT ONLY & EMERGENCY ACCESS
- (G) — ENTRY/EXIT GATE
- ✳ — INDICATES LOTS THAT ARE TO PLACE TRASH AND RECYCLABLE TOTERS ON PRIVATE STREET ON TRASH PICK-UP DAY. (SEE NOTE 4 ON SHEET 1)

LSA

FIGURE 1-4

N

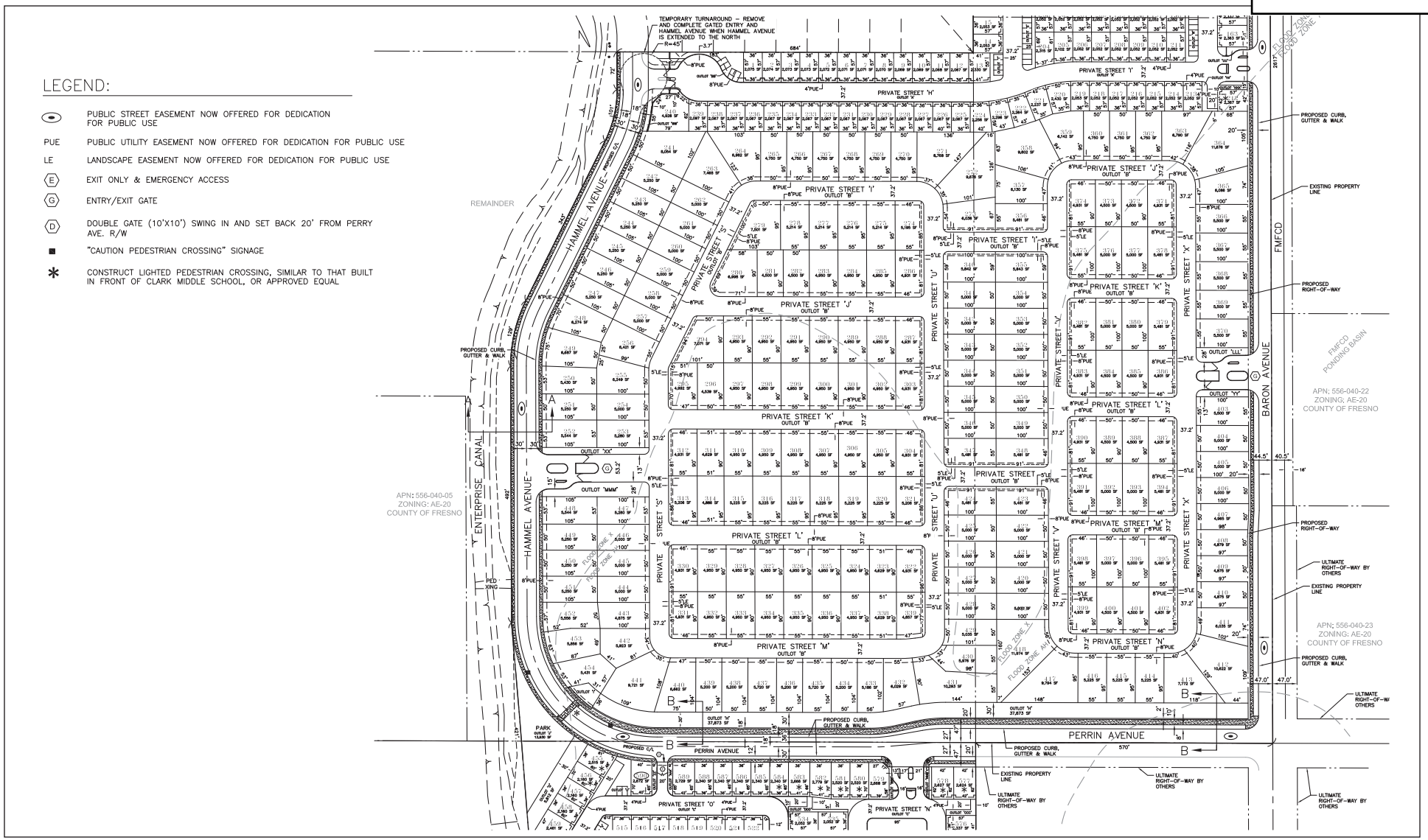
0 60 120
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\South-Phase 1.ai (9/22/2022)

Tract Map 6343
South: Pha

This page intentionally left blank



LSA

FIGURE 1-5

N

0 100 200
FEET

SOURCE: Harbor & Associates, January 2022

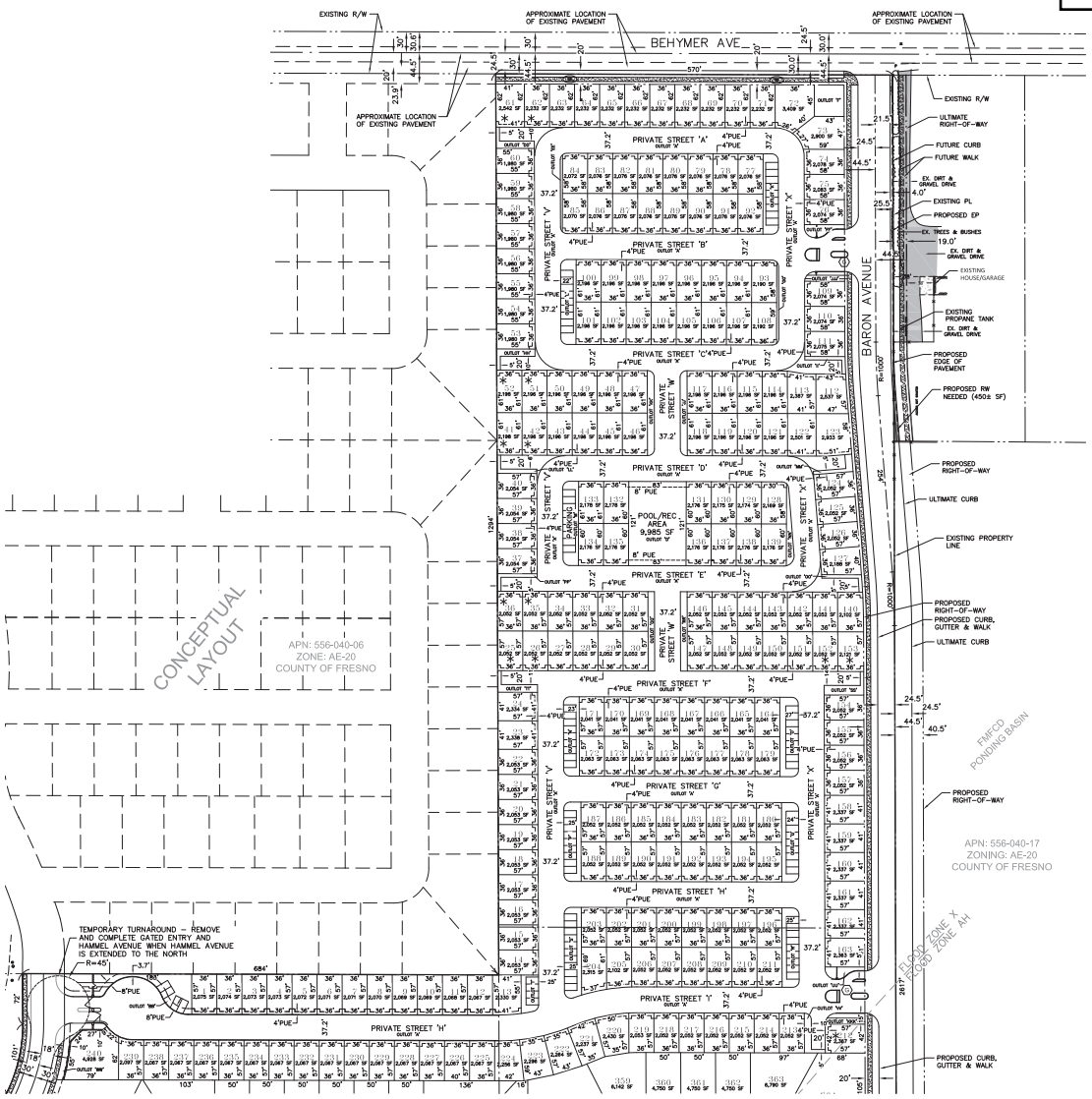
:\CIT2201\G\Central-Phase 2.ai (9/22/2022)

Tract Map 6343
Central: Pha

This page intentionally left blank

LEGEND:

- INDICATES STREETS PREVIOUSLY DEDICATED FOR PUBLIC USE
- PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- PUE — PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- (E) — EXIT ONLY & EMERGENCY ACCESS
- (G) — ENTRY/EXIT GATE
- INDICATES LOTS THAT ARE TO PLACE TRASH AND RECYCLABLE TOTERS ON PRIVATE STREET ON TRASH PICK–UP DAY. (SEE NOTE 4 ON SHEET 1)



LSA

FIGURE 1-6

N

0 80 160
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\North-Phase 3.ai (9/22/2022)

Tract Map 6343
North: Pha

This page intentionally left blank

2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in Chapter 3.0.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	

2.1 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

This page intentionally left blank

3.0 CEQA ENVIRONMENTAL CHECKLIST

3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Impact Analysis

a. Would the project have a substantial effect on a scenic vista?

Less Than Significant Impact. A scenic vista is generally defined as a public vantage point with an expansive view of a significant landscape feature. The Open Space and Conservation Element of the City of Clovis' General Plan identifies Clovis Avenue, Shaw Avenue, and Herndon Avenue as gateways to the community and important visual links to Old Town Clovis from the greater Fresno area. Other arterial roadways that travel east-to-west through the Clovis, such as Shepherd Avenue, Bullard Avenue, and Ashlan Avenue, span the community's suburban/rural interface and therefore can also be construed as scenic corridors. These roadways provide a scenic and character transition through the nearly built-out core of Central Clovis into its pastoral agrarian areas to the north, east, and south.

The project site is currently undeveloped and used for agriculture. The project site is located in the vicinity of West Shepherd Avenue, one of the scenic corridors identified in the General Plan. The project site is also located within the City's Northwest Urban Center, now referred to as Heritage Grove, which offers some of the most direct and unobstructed views of the Sierra Nevada and foothills in the City.[3] The Heritage Grove area is specifically planned for urban growth. The proposed project would develop the 71.54-acre project site into a 590-lot single-family residential development. Although implementation of the proposed project would change the existing

[3] City of Clovis. 2014. General Plan and Development Code Update PEIR. Aesthetics. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-01-Aesthetics.pdf (accessed April 14, 2022).

agricultural land uses in the project site to a single-family residential use, the proposed residential use of the project site would be similar to existing residential uses south of the site, and therefore, the addition of single-family residences at the site would not substantially change views from public vista points. Additionally, the proposed single-family residences to be constructed at the project site would be consistent in size and scale to existing residential units in the vicinity of the project site and would not introduce oversized elements that could obstruct distant views of the Sierra Nevada and foothills.

Therefore, the proposed project would not have a substantial effect on scenic vistas in the vicinity of the project site, and the impact would be less than significant. This topic will not be discussed in the EIR.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to the California Department of Transportation (Caltrans) mapping of State Scenic Highways[4], there are no state-designated scenic highways in or near the City of Clovis. However, State Route 168 (SR-168), an Eligible State Scenic Highway located approximately 2.5 miles south of the project site, bisects the City in a southwest to northeast direction.[5] No Officially Designated or Eligible State Scenic Highways are located within or in the immediate vicinity of the project site. Therefore, the proposed project would not impact a designated or eligible State Scenic Highway or impact scenic resources located within the highway segments or its viewshed. Therefore, no impact on scenic resources within a State Scenic Highway would occur as a result of the proposed project. This topic will not be discussed in the EIR.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The proposed project would include the construction of a 590-lot single-family residential development. The project site is currently undeveloped and used for agriculture, and it is surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north. The proposed project would change the agricultural use of the site to a residential use. Furthermore, the proposed project would introduce Single-Family Planned Residential Development (R-1-PRD) uses into a site zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County.

The proposed project is located within Heritage Grove, a growth area identified for development in the City's General Plan. The proposed project would require approval from Fresno County Local

[4] California Department of Transportation (Caltrans). State Scenic Highways. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways (accessed May 12, 2022).

[5] *Ibid.*

Agency Formation Commission (Fresno LAFCo) for annexation to the City of Clovis. After annexation to the City, site zoning would be compatible with the proposed residential use of the proposed project. Additionally, the single-family residences to be constructed on the project site would be consistent in size and scale to existing residential units to the south of the project site.

Therefore, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality in the City and would not substantially degrade the existing visual character or quality of public views of the project site and its surroundings, and the impact would be less than significant. This topic will not be discussed in the EIR.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The proposed project would include the construction of 590 new single-family residential units within the project site, as well as landscaped, recreational, and utility areas. The construction of new buildings and infrastructure would introduce new sources of light into the project site and vicinity. Compliance with California Building Code (Title 24, California Code of Regulations) standards would reduce potential light and glare impacts. Furthermore, the City's Development Code Update outlines performance standards related to exterior lighting to reduce impacts from new light sources under Article 3 (Development and Operational Standards), Section 9.22.050 (Exterior Light and Glare). Section 9.22.050 states the following:

A. **Exterior Lighting**

1. Exterior Lighting shall be:

   a. Architecturally integrated with the character of on-site and adjacent structure(s);

   b. Directed downward and shielded so that all direct light and glare is confined within the boundaries of the subject parcel;

   c. Installed so that lights not blink, flash, or be of unusually high intensity or brightness. The blink and flash provision does not apply to allowed seasonal decorations in residential areas, 9.34.060(P). The unusually high intensity or brightness provision shall apply in all instances; and

   d. Appropriate in height, intensity, and scale to the uses they are serving.

2. Exterior lighting shall not:

   a. Exceed 150 watts (or equivalent) or directly illuminate or be visible from adjacent properties.

   b. Result in:

1) Indirect illumination of adjacent properties in excess of 0.5 foot-candles;

2) A point of overlap between light patterns greater than seven feet for pedestrian lighting systems; or

3) An intensity of lighting within the physical limits of an area required to be lighted that is greater than seven foot-candles.

B. **Security Lighting.** Security lighting shall be provided at all entrances/exits to structures. The minimum illumination shall be two footcandles at ground level in front of the entrance/exit.

C. **Shielded Lighting.** Light sources shall be shielded to direct light rays onto the subject parcel only. The light source, whether bulb or tube, shall not be directly visible from an adjacent property or public street rights-of-way. This Section does not apply to public street lighting, sign illumination, or traffic safety lighting.

Implementation of State and local policies and standards would reduce impacts associated with light and glare through the adoption and enforcement of development design standards. Additionally, the new sources of light and glare introduced by the proposed project would be comparable to the existing light and glare emitted by residential uses located south of the project site. Therefore, the adverse impacts related to light and glare resulting from the proposed project would be less than significant. This topic will not be discussed in the EIR.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

3.2.1 Impact Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less Than Significant Impact. The project site is classified as "Unique Farmland" and "Farmland of Local Importance" by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP)[6]. The proposed project would develop the 71.54-acre project site into a 590-lot single-family residential development. Therefore, development of the proposed project would result in the conversion of Unique Farmland and Farmland of Local Importance to a non-agricultural use.

[6] California Department of Conservation. 2016. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed April 14, 2022).

The City of Clovis General Plan identifies that build out of the General Plan would result in a significant unavoidable impact related to the conversion of Important Farmland to non-agricultural uses.

Mitigation Measure 2-1 of the General Plan EIR addresses conversion of important farmland associated with build out of the General Plan, and requires project applicants for properties that include 20 acres or more of designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to prepare or fund an agricultural resource evaluation, such as a Land Evaluation and Site Assessment (LESA) Model, prior to project approval. The Senate Bill 2 (SB 2) Farmland Impact Assessment[7] prepared for the City of Clovis prepared a LESA Model for the Heritage Grove growth area, which includes the project site, and concluded that conversion of farmland in the Heritage Grove growth area would result in significant unavoidable impacts to important farmland, consistent with the determination of the General Plan EIR.

Additionally, Mitigation Measure 2-1 requires that if farmland conversion is deemed significant, the City would require mitigation at a 1:1 ratio of converted to preserved acreage, or payment of its valuation equivalent if a fee mitigation program is established, or mitigation through a regional agricultural preservation program, if applicable. However, the General Plan EIR does state that even with implementation of Mitigation Measure 2-1, conversion of farmland through build out of the General Plan would represent a significant unavoidable impact. As such, farmland conversion covered under the General Plan cannot be mitigated.

Figure 5.2-5 in the Agriculture and Forestry section of the General Plan EIR identifies the location of Important Farmland in the City's Planning Area to be converted by buildout of the General Plan.[8] Sections of the proposed project currently used for agricultural activities are included among the Important Farmland to be converted by buildout of the General Plan. Additionally, the proposed project is located within Heritage Grove, a growth area identified for development in the General Plan. Development of the proposed project would be consistent with planned growth under the General Plan, and therefore, would not result in unplanned impacts to Important Farmland. Therefore, a less than significant impact would occur. This topic will not be discussed in the EIR.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less Than Significant Impact. The project site is zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. In addition, the project site contains APN 556-030-14S, which is currently under a Williamson Act contract. Following approval of the proposed project and certification of the EIR, the City and Project Applicant will apply to have the project site and annexation area annexed into the City of Clovis and cancellation of the Williamson Act contract, respectively.

---

7 LSA Associates, Inc. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February 2022.

8 City of Clovis. 2014. General Plan and Development Code Update PEIR. Agriculture and Forestry Resources. Figure 5.2-5: Important Farmland Converted at General Plan Buildout. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-02-Agriculture-and-Forestry-Resources.pdf (accessed July 7, 2022).

As noted in the SB 2 Farmland Impact Assessment prepared for the City for the Heritage Grove Growth Area, APN 556-030-014S (the project site) is currently under a Williamson Act contract. A petition for cancellation and statutory findings to support cancellation of the Williamson Act contract would need to be submitted by the Project Applicant as set forth under Government Code Section 51282(a). Additionally, payment of a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcel is required as set forth under Government Code Section 51283(b). The cancellation process for APN 556-030-014S will be completed prior to development of the proposed project.

After annexation of APN 556-030-14S to the City of Clovis and cancellation of the Williamson Act contract, the parcel could develop uses that comply with the zoning designation of the parcel per the City's Zoning Code without the proposed development being inconsistent with a Williamson Act contract.

Furthermore, the City's General Plan identified a significant and unavoidable impact related to conversion of agricultural land uses in the Heritage Grove area to non-agricultural use. As a result, the potential impacts related to conflicts with existing zoning for agricultural use or a Williamson Act contract have been previously addressed in the General Plan EIR, and this project would not result in a new impact. As a result, a less-than-significant impact would occur. This topic will not be discussed in the EIR.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The project site is zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. The project site is not currently used for timberland production, nor is it zoned for forest land or timberland. No forest lands or timberland are located on the project site. The proposed project would not conflict with the existing zoning for, or cause rezoning of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact on forest land or timberland. This topic will not be discussed in the EIR.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use?

No Impact. Please refer to the discussion for c) above. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact. This topic will not be discussed in the EIR.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less Than Significant Impact. Please refer to discussions a) and c) of this section. The project site is not used for timberland production or zoned for forest land or timberland. The project site is classified as "Unique Farmland" and "Farmland of Local Importance" by the California Department

of Conservation FMMP. The proposed project would result in the conversion of farmland to non-agricultural uses. However, conversion of farmland resulting from the proposed project has already been identified in the General Plan EIR, and it would be consistent with planned growth in the City of Clovis under the General Plan. As a result, the proposed project would not result in the conversion of forestland or timberland, or the unplanned conversion of farmland beyond what has been identified by the General Plan. Therefore, the impact would be less than significant. This topic will not be discussed in the EIR.

3.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Impact Analysis

The proposed project is in the City of Clovis' existing Sphere of Influence and northwest planned growth area. The project falls within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is responsible for air quality regulation within the eight-county San Joaquin Valley region.

Both the California Air Resources Board (CARB) and the United States Environmental Protection Agency (EPA) have established health-based Ambient Air Quality Standards for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), particulate matter less than 10 microns in size (PM_{10}), and particulate matter less than 2.5 microns in size ($PM_{2.5}$). These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as PM, CO, SO_2, and Pb are considered local pollutants because they tend to accumulate in the air locally. The San Joaquin Valley Air Basin (Air Basin) is under State non-attainment status for ozone and particulate matter (PM_{10} and $PM_{2.5}$) standards. The Air Basin is also classified as non-attainment for both the federal ozone 8-hour standard and the federal $PM_{2.5}$ 24-hour standard.

A threshold of significance is defined by the SJVAPCD in its Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) as an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Non-compliance with a threshold of significance means the effect will normally be determined to be significant. Compliance with a threshold of significance means the effect normally will be determined to be less than significant. The SJVAPCD has established

thresholds of significance for criteria pollutant emissions generated during construction and operation of projects as shown in Table 3.A below.[9]

Table 3.A: SJVAPCD Construction and Operation Thresholds of Significance (tons/yr)

	CO	NO_X	ROG	SO_X	PM_{10}	$PM_{2.5}$
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015a.)
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gas
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_X = oxides of sulfur
tons/yr = tons per year

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The California Environmental Quality Act (CEQA) requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the Air Basin into attainment, the SJVAPCD adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.[10]

To assure the Air Basin's continued attainment of the EPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007. SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) is designed to reduce PM_{10} emissions generated by human activity. The SJVAPCD adopted the 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ standard to address the EPA federal annual $PM_{2.5}$ standard of 12 micrograms per cubic meter ($\mu g/m^3$), established in 2012. In addition, the SJVAPCD is in the process of developing an attainment strategy to address multiple $PM_{2.5}$

9 San Joaquin Valley Air Pollution Control District. 2015b. Air Quality Thresholds of Significance – Criteria Pollutants. Website: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (accessed on April 14, 2022).

10 San Joaquin Valley Air Pollution Control District. 2016. 2016 Plan for the 2008 8-Hour Ozone Standard. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed April 14, 2022).

standards (1997, 2006, and 2012 $PM_{2.5}$ standards) and a plan to demonstrate maintenance of the 1987 PM_{10} standard as required under the federal Clean Air Act.

For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. Construction and operation of the proposed project may result in an increase in air pollutant emissions. As a result, the proposed project could have a potential adverse effect on the SJVAPCD's implementation of clean air plans. Therefore, the EIR will provide further analysis of the proposed project's consistency with the SJVAPCD's clean air plans.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Potentially Significant Impact. CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a cumulatively significant impact.

Short-term emissions would occur in association with construction activities, including grading, and vehicle/equipment use. Long-term operational emissions are associated with stationary sources and mobile sources. Stationary source emissions result from the consumption of natural gas and electricity. Mobile source emissions result from vehicle trips and result in air pollutant emissions affecting the entire air basin. As noted above, specific criteria for determining whether the potential air quality impacts of a project are significant are set forth by the SJVAPCD.

Construction and operation of the proposed project would result in the emission of air pollutants in the Air Basin, which is currently in non-attainment for federal and State air quality standards. Therefore, implementation of the proposed project could potentially contribute to air quality impacts, which could cause a cumulative impact in the Air Basin. Therefore, the EIR will provide further analysis of cumulative air pollutant emissions associated with the project.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. The closest potentially sensitive receptors to the project site include residential uses located directly adjacent to the project site's eastern boundary and residential uses that are currently under construction south of the project site.

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). Therefore, the EIR will provide further analysis of air pollutant emissions associated with the proposed project.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. During construction of the proposed project, the various diesel-powered vehicles and equipment in use on site and off site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. In addition, the proposed uses that would be developed within the project site are not expected to produce any offensive odors that would result in frequent odor complaints. The proposed project would not create objectionable odors affecting a substantial number of people during project construction or operation, and this impact would be less than significant. This topic will not be discussed in the EIR.

3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Argonaut Ecological Consulting conducted a Biological Resource Assessment[11] (BRA) to assess potential impacts of the proposed project on biological resources. The following methodology was utilized to assess the biological study area of the proposed project:

- **Data and Literature Review:** Documents and sources of information used to prepare this evaluation include the following:
    - United States Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Fresno Area (Soils Mapper)
    - Aerial photography (Google Earth®, Bing®, and historic aerials)
    - California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDB/RareFind – Recent version with updates)

[11] Argonaut Ecological Consulting. 2022. Biological Resources Assessment – Tentative Tract 6343 and City of Clovis Annexation Area. September 26.

- CDFW Open Data Portal, ArcGIS GeoService
- United States Fish and Wildlife Service (USFWS), National Wetland Inventory Map
- USFWS Information for Planning and Consultation (IPaC).
- United States Geological Survey (USGS), Historical Topographic Map, Clovis and Friant Quadrangles, 1919, University of Texas, Austin, Perry-Castañeda Map Collection

Prior to review of the project site, the CNDDB/RareFind and the USFWS IPaC were consulted to determine the species potentially present within the biological study area based on location.

- **Aerial Photography and Wetland Mapping:** Historical aerial photographs dating from the 1980s of the biological study area were reviewed to identify site features and determine land use changes over time. Wetland mapping and aerial photographs were also reviewed to determine if the biological study area recently supported wetlands.

- **Field Survey:** A field survey was conducted on the project site on August 6 and 7, 2022. The project site was walked, and habitat features mapped. Review of the annexation area of the proposed project included a combination of observation from public roads, and limited foot surveys of accessible areas. Soils, vegetation, and drainage patterns within the biological study area were inspected to determine the habitat present and suitability for species of concern.

3.4.1 Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. The proposed project would result in the construction of a 590-lot residential development for single-family residences in the approximately 71.54-acre site located in the Heritage Grove area.

The project site is currently dominated by ruderal species and by nonnative grassland previously used for cattle grazing. No special-status plant species are expected to occur within the project site or to be adversely affected by the proposed project. While no special-status animal species (or signs of such species) were observed on site during the August 2022 survey, eight existing trees surrounding the existing residential unit within the project site could provide suitable nesting habitat for a variety of birds, including Swainson's hawk (*Buteo swainsoni*). Additionally, there is potential for the western burrowing owl (*Athene cunicularia*) to nest in old pipelines around the existing residential unit or along the Enterprise Canal. No suitable habitat for any other special-status species occurs in the project site. Potentially significant direct and indirect impacts, including mortality, harassment, or other forms of incidental take, could occur during proposed removal of existing trees and the exiting residential unit in the project site and due to site disturbance associated with construction activities. Mitigation Measures BIO-1 through BIO-4, outlined below,

would reduce the impact of the proposed project on special-status species to less than significant. As such, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The impact would be less than significant with mitigation, and this topic will not be discussed in the EIR.

Mitigation Measure BIO-1 **Nesting Bird Surveys and Active Nest Avoidance.** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 15 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.

Mitigation Measure BIO-2 **Conduct Surveys for Swainson's Hawk Nests and Implement Avoidance and Minimization Measures.** The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct pre-construction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records will be used to support the survey.

Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status

of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW).

If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated.

Mitigation Measure BIO-3 **Conduct Pre-construction Clearance Surveys for Burrowing Owl.** A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site.

Mitigation Measure BIO-4 **Passive Relocation Measures for Burrowing Owl.** If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging

habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993).

If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. No riparian habitat or other sensitive natural communities have been identified within the project site. The project site is disturbed from past agricultural activities, and mainly contains ruderal vegetation and nonnative grassland. As such, the proposed project would not have substantial adverse effects on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS, and the impact would be less than significant. This topic will not be discussed in the EIR.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant with Mitigation Incorporated. The proposed project would result in the construction of a 590-lot residential development for single-family residences in an approximately 71.54-acre site in the Heritage Grove area.

The main aquatic feature in the vicinity of the project site is Enterprise No. 109 Canal (Enterprise Canal), an irrigation canal managed by the Fresno Irrigation District. Enterprise No. 109 Canal does not meet the current definition of a jurisdictional water of the United States and does not meet the wetland criteria wetland criteria outlined in the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, which excludes agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state.

Nevertheless, the Enterprise No. 109 Canal may fall within the jurisdiction of CDFW under Section 1602 of the California Fish and Game Code and the Regional Water Quality Control Board (RWQCB) under the California Water Code (e.g., the Porter-Cologne Water Quality Control Act). Furthermore, given the recent substantial changes in operable definitions that have occurred and may continue to occur, and considering the regulatory revisions and potential court actions, it is not possible to definitively predict the regulations that will be in place at the time of a particular jurisdictional determination or permit action by the United States Army Corps of Engineers (USACE). Under currently effective Clean Water Act regulations and guidance, the USACE reserves the right to regulate certain resources on a case-by-case basis. Therefore, Regulatory Compliance Measure BIO-1 is recommended. Implementation of this measure would reduce potential impacts to protected wetlands to less than significant.

As such, the proposed project would not have a substantial adverse effect on state or federally protected wetlands, and the impact would be less than significant with mitigation. This topic will not be discussed in the EIR.

Regulatory Compliance Measure BIO-1	**Agency Coordination for Enterprise No. 109 Canal.** Prior to any modifications to Enterprise No. 109 Canal, it is recommended to consult with the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). If direct modifications to the canal are proposed, a notification of streambed alteration shall be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE shall be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Enterprise No. 109 Canal modifications.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The project site is disturbed from past agricultural activities, and mainly contains ruderal vegetation and nonnative grassland. Based on field observations and the location of the project site, there are no indications that the project site functions as a wildlife movement corridor, or an important stopover point for migratory species. The wildlife species that occur in the vicinity of the project site are adapted to the urban-wildland interface. The noise,

vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. The proposed project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity.

Existing trees on site could provide limited nesting habitat to native and migratory bird species, including Swainson's hawk. Furthermore, there is limited potential for Burrowing owls nesting in the vicinity of the existing residential unit onsite, as well as the vicinity of Enterprise No. 109 Canal. Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of take by the CDFW. Implementation of Mitigation Measures BIO-1 through BIO-4 would ensure that take of nesting migratory bird species, as well as of special-status species such as Swainson's hawk and burrowing owl, is avoided.

As such, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The impact would be less than significant. This topic will not be discussed in the EIR.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The Clovis Development Code includes tree protection standards for any trees that may need to be removed during construction. Compliance with the tree protection standards of the Clovis Municipal Code would require the replacement of trees and/or payment of in-lieu fees. The project would be required to comply with the tree protection ordinance; therefore, the impact would be less than significant.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The PG&E San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP) was approved in 2007 and covers portions of nine counties, including Fresno County. This HCP covers PG&E activities that occur as a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the USFWS and CDFW. The project site is not located within the covered area of any approved or draft HCP, Natural Communities Conservation Plan (NCCP), or other adopted local, regional or State HCP. Therefore, the proposed project would not conflict with the provisions of the PG&E HCP, and the proposed project would have no impact. This topic will not be discussed in the EIR.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Peak & Associates, Inc. prepared a Cultural Resource Assessment (CRA)[12] for the proposed project to assess potential impacts to cultural resources. The following discussion summarizes the methodology and results of the study:

- **Southern San Joaquin Valley Information Center:** A record search of the study area for the proposed project and a 0.25-mile search radius was conducted on through the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) on September 6, 2022 (SSJVIC Records Search File No. 22-334).

  The record search results indicated that no portion of the project site has ever been previously surveyed for cultural resources. Two resources were identified within the study area: a waste disposal site (P-10-006461) found during excavation for a utility pole in the northeast corner of the annexation area in 2015, and the Enterprise Canal, recorded as P-FRE-3564-H. Within the 0.25-mile radius search, six historic period resources have been recorded.

- **Field Survey:** On September 14, 2022, and September 15, 2022, Peak & Associates, Inc. staff conduced a field survey of the project site. The project site was walked on its entirety and surveyed.

- **Results:** No features or artifacts of historical or prehistoric nature were observed in the project site during the field survey. The existing residential unit onsite is less than 50 years old and would not be considered a historical resource.

3.5.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. A historical resource defined by CEQA includes one or more of the following criteria: (1) the resource is listed, or found eligible for listing in, the California Register of Historical Resources (California Register); (2) listed in a local register of

[12] Peak & Associates, Inc. 2022. Cultural Resource Assessment for the Tentative Tract Map 6343 and City of Clovis Annexation Area, County of Fresno, California. September 21.

historical resources as defined by Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by the project's lead agency (PRC Section 21084.1; *CEQA Guidelines* Section 15064.5(a)). Under CEQA, historical resources include built-environment resources and archaeological sites.

The proposed project would result in the construction of a 590-lot residential development for single-family residences. According to the CRA for the project, no historical resources were identified within the project site during the record search or field survey. However, development of previously undeveloped land in the City could result in the discovery of previously unknown historical resources.

To reduce potential impacts on potentially undiscovered historical resources in the project site, Mitigation Measure CUL-1 shall be implemented. This mitigation measure would reduce potential impacts to undiscovered resources to a less than significant level by consulting with a qualified historical resources specialist and implementing applicable mitigation measures to protect resources found during project construction. This topic will not be discussed in the EIR.

Mitigation Measure CUL-1

Consultation with Qualified Historical Specialist for Resources Found During Project Construction. If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study.

The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the *CEQA Guidelines*.

If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the *CEQA Guidelines*, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center .

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. Pursuant to *CEQA Guidelines* Section 15064.5(c)(1), "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource..." Those archaeological sites that do not qualify as historical resources shall be assessed to determine if they qualify as "unique archaeological resources" pursuant to California PRC Section 21083.2. Archaeological cultural resources identified during project construction shall be treated by the City in consultation with a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology, and in accordance with Mitigation Measure CUL-1 as identified above in Section 3.5.a. With implementation of these measures, impacts to archaeological resources would be less than significant. This topic will not be discussed in the EIR.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 shall apply, as appropriate. Furthermore, implementation of Mitigation Measure CUL-2 would ensure compliance with applicable laws and regulations pertaining treatment and disposition human remains, reducing potential impacts on unknown human remains to a less than significant level. This topic will not be included in the EIR.

Mitigation Measure CUL-2 In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.

Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further

development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Project Applicant shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

3.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Less Than Significant Impact. The proposed project would be constructed using energy-efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, California Code of Regulations [CCR] Sections 1601 through 1608). The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for residential uses in the Clovis; however, energy consumption is largely a function of personal choice and the physical structure and layout of buildings. It can be assumed that implementation of the proposed project would result in additional energy demand in Clovis. The proposed project would be required to comply with the City's energy efficiency policies, including Policies 3.5, 3.6, and 3.7 from the Open Space and Conservation Element of the General Plan as follows:

> **Policy 3.5: Energy and Water Conservation.** Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the California Building Code.
>
> **Policy 3.6: Renewable Energy.** Promote the use of renewable and sustainable energy sources to serve public and private sector development.
>
> **Policy 3.7: Construction and design.** Encourage new construction to incorporate energy efficient building and site design strategies.

Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. As such, the proposed project would have a less than significant impact. This topic will not be discussed in the EIR.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. As discussed in a) above, the proposed project would be required to comply with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) and with General Plan policies for energy efficiency and conservation. The proposed project would also be required to implement the California Green Building Standards Code (CALGreen Code) (CCR Title 24, Part 11) and the California Energy Code (CCR Title 24, Part 6), which include provisions related to insulation and design aimed at minimizing energy consumption. Therefore, the proposed project would comply with State and local policies plan for renewable energy or energy efficiency, and the impact would be less than significant. This topic will not be discussed in the EIR.

3.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Impact Analysis

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. Fault ruptures are generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., within the past 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. The project site is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, no known active or potentially active faults or fault traces are located in the vicinity of the project site. The closest active faults to the project site are the Nunez Fault, located approximately 60 miles southwest of the project site and the Ortigalita Fault, located approximately 66 miles southwest of the

project site. Due to the distance of these known faults, no people or structures would be exposed to potential substantial adverse effects, including the risk of loss, injury, or death from the rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. Therefore, potential impacts related to fault rupture would be less than significant. This topic will not be discussed in the EIR.

ii. Strong seismic ground shaking?

Less Than Significant Impact. While Clovis is not located within an Alquist-Priolo Earthquake hazard zone, some ground shaking may occur within the City Planning Area depending on the amount of energy released from a nearby fault, or the magnitude of the earthquake. The proposed project would be required to conform to California Building Code (CCR Title 24) seismic safety standards, which take multiple factors into account, such as occupancy type, soil type, and ground motion with a specified probability at the project site. Compliance with the California Building Code would ensure that geotechnical design of the proposed project would reduce potential impacts related to seismic ground shaking to less than significant. This topic will not be discussed in the EIR.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy. Liquefaction and lateral spreading potential in Fresno County and Clovis is considered very low due to the nature of the underlying soils and history of low ground-shaking potential in the region. Furthermore, compliance with the California Building Code would ensure potential impacts associated with seismic-related ground failure would be less than significant. This topic will not be discussed in the EIR.

iv. Landslides?

Less Than Significant Impact. Landslides typically occur in areas that experience ground shaking, are typically wet and/or have steep slopes. The proposed project is located in Clovis, which is an area that consists of mostly flat topography within the Central Valley and has low ground-shaking potential. Additionally, the project site is not located next to any hills, rivers, creeks or unlined canals that could increase the risk of landslides. Therefore, the potential for the proposed project to expose people or structures to risk as a result of landslides would be less than significant. This topic will not be discussed in the EIR.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Grading and earthmoving during project construction has the potential to result in erosion and loss of topsoil. Exposed soils could be entrained in stormwater

runoff and transported off the project site. However, this impact would be reduced to a less-than-significant level through compliance with water quality control measures, which include preparation of a Stormwater Pollution Prevention Plan (SWPPP) (refer to Section 3.10, Hydrology and Water Quality). Although designed primarily to protect stormwater quality, the SWPPP would incorporate Best Management Practices (BMPs) to minimize erosion during construction. Additional details regarding the SWPPP are provided in Section 3.10, Hydrology and Water Quality, of this Initial Study. This impact would be less than significant. This topic will not be discussed in the EIR.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As described in discussion a) in this section, soils on the project site would not be subject to liquefaction, lateral spreading, or landslides. Additionally, the proposed project would be required to conform with the California Building Code, which would reduce risks related to unstable soils. Therefore, the proposed project would have a less than significant impact related to unstable soils. This topic will not be discussed in the EIR.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. The project site contains Exeter sandy loam, Tujunga loamy sand, Atwater sandy loam, and Ramona sandy loam, soils which have a medium to low shrink-swell potential.[13] Compliance with California Building Code requirements would ensure the implementation of design features that would reduce potential impacts related to expansive soils to a less than significant level. As such, the risk of expansive soil affecting the proposed project is considered low and would represent a less than significant impact. This topic will not be discussed in the EIR.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The City's Public Utilities Department currently manages the City's sewer system and wastewater treatment facilities. Wastewater from the City's collection system is treated at the Clovis Water Reuse Facility and the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF). Development of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. The proposed project would be required to pay development fees and fund the construction or expansion of wastewater infrastructure, as applicable, to ensure that the public sewer system would serve the project site. Therefore, the proposed project would have no

[13] Natural Resources Conservation Service. n.d. Web Soil Survey. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed April 14, 2022).

impact related to septic tanks or alternative wastewater disposal systems. This topic will not be discussed in the EIR.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Paleontological resources are afforded protection under *CEQA Guidelines*, Appendix G. The *CEQA Guidelines* indicate that a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site, or a unique geologic feature. PRC Section 5097.5 also specifies that the unauthorized removal or damage of paleontological remains is a misdemeanor. The California Penal Code Section 622.5 also sets penalties for removal or damage of paleontological resources.

The project site has been partially developed and used for agricultural production. In addition, there have been no known discovery of occurrences of paleontological resources in the immediately surrounding areas. Although the project site has been previously disturbed, it is possible that paleontological resources could be inadvertently or accidentally discovered within the project site during construction activities. Mitigation Measure GEO-1 would serve to protect the accidental discovery of paleontological resources. As such, a less than significant impact with mitigation would occur. This topic will not be discussed in the EIR.

Mitigation Measure GEO-1 If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource.

If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.

3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

3.8.1 Impact Analysis

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide (CO_2), which is the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the project site and

motor vehicles transporting the construction crew would produce GHGs. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Long-term operation of the proposed project would generate GHG emissions from mobile and stationary sources. Mobile-source emissions of GHG would include vehicle-related emissions associated with the private vehicles owned by residents and employees of the project site. Stationary emissions of GHG would include electricity and natural gas consumption from residences at the project site.

The EIR will provide further analysis of the proposed project's GHG emissions.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. As discussed above, the project has the potential to emit GHGs. As such, the EIR will include further evaluation of project-related emissions and associated emission reduction strategies to determine whether the proposed project conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Construction activities associated with the proposed project would involve the use of limited amounts of potentially hazardous materials, including but not limited to, solvents, paints, fuels, oils, and transmission fluids. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the California Department of Toxic Substances Control (DTSC), the EPA, and the Occupational Safety and Health Administration (OSHA). No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials or emitting significant amounts of hazardous substances would occur within the project site. All storage, handling, and disposal of hazardous materials during project construction and operation would comply with applicable standards and regulations, including Policies 1.4, 2.1, 2.3, and 2.4 from the Environmental Safety Element of the General Plan:

Policy 1.4: Facilities that use hazardous materials. Prohibit facilities using, storing, or otherwise involved with hazardous or toxic materials to be located in the 100-year flood zone unless all standards of elevation, flood proofing, and storage have been implemented.

Policy 2.1: Safe storage and maintenance. The use and storage of hazardous materials shall comply with applicable federal, state, and local laws to prevent and mitigate hazardous materials releases.

Policy 2.3: Truck routes for hazardous materials. Maintain designated truck routes for the transportation of hazardous materials through the City. Discourage routes that pass through residential neighborhoods to the maximum extent feasible.

Policy 2.4: Hazardous materials response team. Maintain a Type 1 hazardous materials response team serving the City of Clovis.

As a result, the proposed project would not create significant hazards to the public or environment through the transport, use or disposal of hazardous materials, and a less than significant impact would occur. This topic will not be included in the EIR.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. See discussion a) above. The proposed project would not use substantial amounts hazardous materials which release would result in a significant hazard to the public or the environment. Additionally, the proposed project would also comply, as applicable, with General Plan Policies 1.4, 2.1, 2.3 and 2.4 from the Environmental Safety Element, which require compliance with local, State and federal standards and procedures for the handling, use, transport and disposal of hazardous materials. This impact would be less than significant. This topic will not be included in the EIR.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The closest existing schools to the project site are Woods Elementary School, located approximately 0.75 mile south of the project site, and Buchanan High School, located approximately 1.08 miles southeast of the project site. As previously stated, the proposed project would not result in the use or emission of substantial quantities of hazardous materials that would pose a human or environmental health risk. In addition, all hazardous materials within the project site would be handled, stored, and disposed of in accordance with applicable standards and regulations. Therefore, because the proposed project would not result in the emission of hazardous materials or acutely hazardous substances in the vicinity of a school, a less than significant impact would occur. This topic will not be included in the EIR.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. According to the DTSC EnviroStor database,[14] the project site is not located on a federal superfund site, State response site, voluntary cleanup site, school cleanup site, evaluation site, school investigation site, military evaluation site, tiered permit site, or corrective action site. Additionally, the project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[15] Therefore, the proposed project would not create a significant hazard to the public, and a less-than-significant impact would occur. This topic will not be included in the EIR.

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less Than Significant Impact. The nearest airports to the project site include the Fresno Yosemite International Airport, located approximately 6.5 miles southwest of the project site, Fresno Chandler Executive Airport, located approximately 11.7 miles southwest of the project site, and the Sierra Sky Airport, located approximately 9.6 miles southwest of the project site. The nearest medical center helipads (HP) to the project site include the Clovis Community Hospital HP located approximately 3.34 miles southeast of the project site, the Saint Agnes Medical Center HP, located approximately 4.2 miles southwest of the project site, and the Valley Children's Hospital HP located approximately 5.33 miles west of the project site.[16] Due to the distance between the project site and local airports and helipads, operations at these locations are not expected to pose a safety hazard for people residing in the project site. Therefore, the proposed project would not expose persons to airport-related hazards, and the potential impact would be less than significant. This topic will not be included in the EIR.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The California Emergency Services Act requires cities to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The Clovis Fire Department maintains the City's Emergency Operations Plan (EOP). The proposed project would include the construction of 590 new single-family residential units within the project site, as well as landscaped, recreational, and utility areas. The proposed project would also result in the construction of extensions of North Baron

[14] California Department of Toxic Substances Control. 2007. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=clovis (accessed April 14, 2022).

[15] California Environmental Protection Agency (CalEPA). 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List. Website: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/ (accessed April 14, 2022).

[16] California Department of Transportation (Caltrans). 2019. Caltrans HeliPlates. Website: https://heliplates.dot.ca.gov/# (accessed April 14, 2022).

Avenue, Perrin Avenue, and Hammel Avenue to facilitate access to, and circulation within, the project site.

The proposed improvements to North Baron Avenue, Perrin Avenue, and Hammel Avenue are not expected to block the circulation of emergency response services in the vicinity of the project site or introduce elements that would conflict with the operations of the City's EOP. After construction, the proposed extensions to North Baron Avenue, Perrin Avenue, and Hammel Avenue would improve access of emergency response vehicles to the project area and evacuation from the project area. Therefore, the proposed project would not interfere with emergency evacuation plans in Clovis, and this impact would be less than significant. This topic will not be included in the EIR.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. The project site is located in an area mapped by the California Department of Forestry and Fire Protection (CAL FIRE) as Local Responsibility Area (LRA) Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a very high fire hazard severity zone (VHFHSZ).[17] However, the project site is in the vicinity of a moderate fire hazard zone. As such, implementation of the proposed project could expose people and/or structures to fire hazard by development near a moderate fire hazard severity zone. In compliance with the General Plan EIR, projects built or developed within a fire hazard severity zone would be required to comply with Chapter 7A of the California Building Code. Any project developed or redeveloped surrounded by or next to forest, brush, grass, or other flammable vegetation would also be mandated to comply with requirements regarding hazardous vegetation, defensible space, and fuel management in California PRC Sections 4291 et seq. and in Sections 4906 and 4907 of the California Fire Code (CFC). Implementation of these regulations would reduce potential impacts associated with wildland fires to a less-than-significant level. This topic will not be included in the EIR.

[17] California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fresno County Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed April 14, 2022).

3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on or off site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. The State Water Resources Control Board (SWRCB) and nine RWQCBs regulate the water quality of surface water and groundwater throughout California. The proposed project is within the jurisdiction of the Central Valley RWQCB.

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During project construction, there would be an increased potential to expose soils to wind and water erosion, which could result in temporary minimal increases in sediment load in nearby water bodies.

In compliance with the General Plan, any development project disturbing one or more acres of soil must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activities subject to the Construction General Permit includes clearing, grading, and other ground-disturbing

activities such as stockpiling or excavation. The Construction General Permit requires development and implementation of a SWPPP.

A SWPPP includes features designed to eliminate contact of rainfall and stormwater runoff with sources of pollution that occur on construction sites, the main source being soil erosion resulting from unstabilized soils coming in contact with water and wind. These features are known as BMPs. Common BMPs to limit pollution in stormwater runoff from construction sites include maintaining or creating drainages to convey and direct surface runoff away from bare areas and installing physical barriers such as berms, silt fencing, waddles, straw bales, and gabions. Consistency with the Construction General Permit, including the SWPPP and BMPs, would reduce project construction impacts on water quality to less than significant levels.

To address long-term impacts to groundwater quality, the proposed project would comply with the Fresno-Clovis Storm Water Quality Management Program (SWQMP)[18], which requires the implementation of BMPs to manage urban stormwater runoff in the Fresno Metropolitan Area. These BMPs require the implementation of site drainage designs and post-construction measures that prevent stormwater pollution, as well as compliance with City of Clovis standards to improve stormwater quality. Compliance with this program would reduce potential impacts to groundwater quality from the proposed project. The Project Applicant would be required to pay Local Drainage Fees to fund drainage improvements pursuant to the FMFCD Master Plan and the SWQMP. Therefore, the proposed project would not violate any water quality standards, waste discharge requirements, or substantially degrade surface or groundwater quality, and the impact would be less than significant. This topic will not be included in the EIR.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Water supply, and water and wastewater circulation services for the proposed project would be provided by the City of Clovis through the Department of Public Utilities. The City of Clovis relies upon groundwater, surface water, and recycled water for its water supply.

The City extracts groundwater from the Kings Subbasin, an unadjudicated basin with a status of critically overdrafted. The proposed project would construct a 590-lot residential development in a previously undeveloped site. The proposed project would result in an increase of impervious surfaces in the currently undeveloped project site. However, the project would not require groundwater pumping for project operations. As previously discussed, the City extracts groundwater from the Kings Subbasin through a well system containing 36 active wells and one standby well with a total capacity of approximately 37,690 gallons per minute (gpm) with another 4,750 gpm of additional capacity planned in the next few years. According to the City's 2020 Urban Water

[18] Fresno Metropolitan Flood Control District (FMFCD). 2020. Fresno-Clovis Storm Water Quality Management Program: FY 2019-20 Annual Report. October 1. Website: http://www.fresnofloodcontrol.org/wp-content/uploads/2020/09/2019-20-Annual-Report-FINAL.pdf (accessed December 6, 2022).

Management Plan[19], the City conducted 5,316 acre-feet (AF) of intentional recharge activities at various basins, creeks, and landscape areas throughout the City's service area. Stormwater throughout the City is collected in FMFCD basins, where collected stormwater is allowed to percolate into the soil as groundwater recharge. The FMFCD allows the City to utilize 17 stormwater basins throughout the City's service area for recharge purposes. The FMFCD urban stormwater drainage system would provide groundwater infiltration for runoff from developed land uses in detention basins in the City's drainage system service area. As Clovis continues to grow, the City intends to expand its surface water supply use, recycled water use, and to continue intentional groundwater recharge efforts to relieve pressure on the groundwater aquifer. The proposed project would aid groundwater recharge in the Kings Subbasin through compliance with the Urban Water Management Plan (UWMP) and construction of surface and subsurface drainage infrastructure, per design requirements of the City and FMFCD, along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site to direct stormwater towards FMFCD Basin BY, which is located adjacent to the project site's eastern boundary. In addition, a 1,300-foot-long, 26-foot-wide drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows west from the project site towards drainage infrastructure along the Enterprise Canal. As such, the proposed project would not interfere with groundwater recharge in the Kings Subbasin, and impacts would be less than significant.

In addition to the groundwater supplies, the City also has access to surface water through several different contracts, all of which are delivered to the City by the Fresno Irrigation District (FID). The various surface water supplies are from the Kings River and Central Valley Project (Class II supplies, which are less reliable than other surface water supplies). Lands located within the Kings River service area are generally entitled to an average annual allotment of approximately 2.24 acre-feet per year per acre (AFY/ac). According to a Water Infrastructure Investigation prepared for the proposed project, and included as Appendix B of this Initial Study, approximately 38.6 acres of the project site are located within the FID service area and 32.9 acres are located outside of the FID service area. The Water Infrastructure Investigation has determined that the proposed Medium Density Residential use of the project has a water demand of 3.3 AFY/ac, making annual water demand in the project site approximately 236 AFY. Because the water demand of the project is higher than the allocation of the FID, and the FID would only supply water for approximately 54 percent of the project site (approximately 86.5 AFY), the proposed project would require additional water supply from the City of Clovis. The proposed project would be required to pay applicable development fees to the City to fund acquisition of additional water supplies. After payment of applicable fees, the City would be able to provide sufficient water supply for the project.

As identified in the Water Supply Assessment, included as Appendix C of this Initial Study, the City will have sufficient water supplies to provide water to this project. As such, the proposed project would not substantially decrease water supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin. As a result, this project would result in a less-than-significant impact related to impeding the

[19] City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed December 6, 2022).

sustainable groundwater management of the Kings Subbasin. This topic will not be included in the EIR.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on or off site;

Less Than Significant Impact. Ground-disturbing activities associated with construction of the proposed project would expose native soils that could be subject to the effects of wind and water erosion unless adequate measures are taken to limit the transport of soils in surface water from construction sites to downstream locations. As discussed under discussion a) in this section, the Project Applicant would be required to implement a SWPPP that would identify specific measures to address erosion and siltation resulting from grading and construction.

Stormwater collection and disposal, and flood control for the City of Fresno, City of Clovis, and the unincorporated areas within the City of Clovis SOI are provided by the FMFCD. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue, as well as along internal roadways in the project site, and redirected towards Basin BY, which is located adjacent to the project site's eastern boundary. Compliance with the FMFCD's SWQMP would require the implementation of BMPs that would manage the release of pollutants and sediments from the project site into stormwater, thus managing potential impacts resulting from erosion and saltation on the project site. Implementation of these measures would reduce potential impacts related to erosion and saltation to less than significant. This topic will not be included in the EIR.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

Less Than Significant Impact. The proposed project would construct a 590-lot residential development in the project site. The project site is mainly undeveloped, and therefore, implementation of the proposed project would increase impervious surfaces at the project site that could increase surface runoff. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site, and redirected towards Basin BY, located adjacent to the project site's eastern boundary. The Project Applicant would be required to pay drainage fees to the FMFCD to fund drainage facilities and address impacts related to increased amount of surface runoff resulting from development of the project site. The construction of stormwater facilities would handle surface runoff in a manner that would exceed the capacity of existing or planned drainage infrastructure in the vicinity. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less Than Significant Impact. Please refer to discussions a) and c) i and ii in this section. The proposed project would result in an increase of impervious surfaces, which can contribute to surface runoff. However, implementation of a SWPPP and compliance with the City's SWQMP would ensure that the proposed project would not generate additional sources of polluted runoff. Additionally, the Project Applicant would be required to pay drainage fees to the FMFCD to address impacts related to increased amount of surface runoff resulting from the proposed project. The construction of proposed stormwater facilities would handle surface runoff in a manner that would exceed the capacity of existing or planned stormwater drainage systems in the vicinity. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

iv. Impede or redirect flood flows?

Less Than Significant Impact. Sections of the project site are located within a 100-year flood hazard zone as mapped by the Federal Emergency Management Agency (FEMA).[20] The City of Clovis Municipal Code Section 8.12, Floodplain Management lists standards and design requirements for new construction and development within special flood zones. Policy 1.1 from the General Plan Environmental Safety Element also prohibits development within the 100-year flood zone unless adequate mitigation against flood hazards is provided. The proposed project would implement flood hazard mitigation required by the City's Municipal Code. Implementation of these requirements would ensure the proposed project does not impede or redirect flood flows, and the impact would be less than significant. This topic will not be included in the EIR.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less Than Significant Impact. The project site is not located in tsunami or seiche zones. Parts of the proposed project are located within a 100-year flood zone but as discussed under discussion c) iv, the proposed project would implement standards and requirements of the City of Clovis Municipal Code to mitigate risks related to flood hazards. Refer to discussion a) in Section 3.9, Hazards and Hazardous Materials, regarding the use, transport and storage of hazardous materials for project construction and operation. As a result, the proposed project would not risk the release of pollutants due to project inundation, and a less than significant impact would occur. This topic will not be included in the EIR.

[20] Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center: Search By Address. Website: https://msc.fema.gov/portal/search?AddressQuery#searchresultsanchor (accessed April 14, 2022).

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The proposed project would comply with the City of Clovis UWMP,[21] which promotes programs and policies to manage water supplies, including groundwater, in Clovis. The proposed project would also comply with the SWQMP and a site-specific SWPPP that would ensure water quality control at the project site, as applicable. The proposed project would not conflict or obstruct implementation of a water quality control or sustainable groundwater management plan, and the impact would be less than significant. This topic will not be included in the EIR.

[21] City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed December 6, 2022).

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.11.1 Impact Analysis

a. Would the project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas.

The proposed project would include the construction of a 590-lot residential development for single-family residences. The development would include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses. The project site is surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north.

The proposed project would not construct features that would physically divide an established community or remove means of access that would impair mobility in a community. Therefore, the proposed project would have no impact. This topic will not be included in the EIR.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed land use for the project site, according to the City of Clovis General Plan, is Medium Density Residential.[22] The project site is currently zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. The proposed zoning for the project site is within the Single-Family Planned Residential Development (R-1-PRD) District. The proposed project would require annexation to the City of Clovis and an annexation application would be required to be submitted to the Fresno LAFCo. The Project Applicant would also be required to pay required processing fees for the annexation process. After approval of annexation of the project site into the City of Clovis, the proposed project would be consistent with the City's land use plans.

[22] City of Clovis. 2014. General Plan and Development Code Update PEIR. Land Use Element. Figure LU-2: Land Use Diagram. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Figure-LU-2.pdf (accessed April 14, 2022).

Therefore, the proposed project would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the impact would be less than significant. This topic will not be included in the EIR.

3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

3.12.1 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. The Mineral Resources section of the Clovis General Plan EIR indicates that entire City of Clovis Planning Area is mapped as Mineral Resource Zone 3 (MRZ-3), meaning that the significance of potential mineral deposits cannot be determined from available data. The nearest area designated MRZ-2, where significant mineral resources are known or very likely to be found, is the San Joaquin River Resource Area, located approximately 4.5 miles west of the project site. Furthermore, the General Plan EIR does not identify any known mineral resources sectors or mineral resource extraction operations within or in the vicinity of the project site.[23] Therefore, the proposed project would not result in the loss of any known mineral resources, and the impact would be less than significant. This topic will not be included in the EIR.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less Than Significant Impact. Please refer to the discussion for a). The proposed project would not result in the loss of availability of any known locally important mineral resource recovery sites. Therefore, the proposed project would have a less than significant impact. This topic will not be included in the EIR.

[23] City of Clovis. 2014. General Plan and Development Code Update PEIR. Mineral Resources. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-11-Mineral-Resources.pdf (accessed April 14, 2022).

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.13.1 Impact Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent human sensitivity to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the Community Noise Equivalent Level (CNEL), and the day-night average level (L_{dn}) based on dBA.

CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Clovis.

The City of Clovis addresses noise in the Environmental Safety Element of the General Plan and in the Municipal Code. The Environmental Safety Element provides goals and policies that work to protect residential and other noise-sensitive uses from exposure to harmful or annoying noise levels; to identify maximum acceptable noise levels compatible with various land use designations; and to develop a policy framework necessary to achieve and maintain a healthful noise environment. Applicable Environmental Safety Element policies include the following[24]:

> **Policy 3.1 Land use compatibility:** Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the Noise Level Exposure and Land Use Compatibility Matrix and the city's noise ordinance.
>
> **Policy 3.4 Acoustical study:** Require an acoustical study for proposed projects that have the potential to exceed acceptable noise thresholds or are exposed to existing or future noise levels in excess of the thresholds in the city's noise ordinance.
>
> **Policy 3.5 Site and building design:** Minimize noise impacts by requiring appropriate site, circulation, equipment, and building design, and sound walls, landscaping, and other buffers.
>
> **Policy 3.14 Control sound at the source:** Prioritize using noise mitigation measures to control sound at the source before buffers, soundwalls, and other perimeter measures.

In addition, the City of Clovis addresses construction noise in Section 9.22.080, Noise, of the Municipal Code. Section 9.22.080 (D) sets exterior noise standards as shown in Table 3.B and interior noise standards as shown in Table 3.C.

Section 5.27.604 states that construction noise is permitted by the City of Clovis provided that construction activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. However, between June 1 and September 15, construction may begin at 6:00 a.m. on weekdays.

[24] City of Clovis. 2014. General Plan and Development Code Update PEIR. Environmental Safety Element. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Clovis-General-Plan-2014.pdf (accessed April 21, 2022).

Table 3.B: City of Clovis Maximum Exterior Noise Standards

Noise Zone	Type of Land Use	Allowable Exterior Noise Level (15-Minute L_{eq}), dBA	
		Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
I	Single-, two- or multiple-family residential	55	50
II	Commercial	65	60
III	Residential portions of mixed-use properties	60	50
IV	Industrial or manufacturing	70	70

Source: City of Clovis Municipal Code
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

Table 3.C: City of Clovis Maximum Interior Noise Standards

Noise Zone	Type of Land Use	Allowable Interior Noise Level (15-Minute L_{eq}), dBA	
		Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
I	Residential	45	40
II	Administrative/professional office	50	-
III	Residential portions of mixed-use properties	45	40

Source: City of Clovis Municipal Code
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

Certain land uses are considered more sensitive to noise than others. Examples of these sensitive land uses include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The nearest noise-sensitive land uses located within the vicinity of the project site includes residential uses located directly adjacent to the project site's eastern boundary.

Short-Term (Construction) Noise Impacts. Project construction would result in short-term noise impacts on nearby sensitive receptors. Maximum construction noise would be short term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase (e.g., demolition, land clearing, grading, excavation, erection) of construction. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grading and site preparation activities. Table 3.D lists typical construction equipment noise levels (maximum instantaneous noise level [L_{max}]) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the Federal High Administration (FHWA) Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the vicinity of the project site but would no longer occur once construction of the proposed project is completed.

Table 3.D: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
FHWA = Federal Highway Administration
L_{max} = maximum instantaneous sound level

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site, which would incrementally increase noise levels on roads leading to the site. As shown in Table 3.D, there would be a relatively high single-event noise exposure potential at a maximum level of 84 dBA L_{max} with trucks passing at 50 feet.

The second type of short-term noise impact is related to noise generated during grading and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 3.D lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor.

Typical maximum noise levels range up to 87 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

As discussed in Section 1.0, Project Description, the proposed project would be constructed in three Phases, over a period of 33 months, and each phase would include the construction and addition of buildings, working areas and equipment to increase the production capacity of the project site. The closest sensitive receptor to the proposed project includes residential uses located directly adjacent to the project site's eastern boundary.

As discussed above, construction noise is permitted by the City of Clovis provided that construction activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. In addition, Mitigation Measure NOI-1 would be required to limit construction activities to daytime hours and would reduce potential construction period noise impacts for the indicated sensitive receptors to less-than-significant levels.

Mitigation Measure NOI-1 The project contractor shall implement the following measures during construction of the proposed project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities.
- Ensure that all general construction related activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. Construction may begin on weekdays at 6:00 a.m. between June 1st and September 15th.

Operational Noise Impacts. The proposed project would include the construction of 590 new single-family residential units in the project site. Motor vehicles with their distinctive noise characteristics are the dominant noise source in the vicinity of the project site. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks),

average traffic speed, and distance from the observer. Implementation of the proposed project would result in new daily trips on local roadways in the vicinity of the project site. The EIR will determine the significance of operational noise impacts of the proposed project.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. No permanent noise sources would be located within the project site that would expose persons to excessive groundborne vibration or noise levels.

As discussed in discussion a) above, implementation of Mitigation Measure NOI-1 would require project construction activities to maintain the greatest possible distance to existing sensitive receptors to reduce potential impacts. Implementation of a buffer between sensitive receptors and construction activities would protect sensitive receptors from excessive groundborne vibration or groundborne noise levels.

Furthermore, the City of Clovis addresses temporary vibrations in Section 9.22.100, Noise, (D) of the Clovis Municipal Code, stating that vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks) are exempt from the provisions of this section.

Therefore, the proposed project would not permanently expose persons within or around the project site to excessive groundborne vibration or noise and the impact would be less than significant. This topic will not be included in the EIR.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The nearest medical center HPs to the project site include the Clovis Community Hospital HP located approximately 3.3 miles southeast of the project site, the Saint Agnes Medical Center HP, located approximately 4.2 miles southwest of the project site, and the Valley Children's Hospital HP located approximately 5.3 miles west of the project site.[25] The nearest airports to the project site include the Fresno Yosemite International Airport, located approximately 6.5 miles southwest of the project site, Fresno Chandler Executive Airport, located approximately 11.7 miles southwest of the project site, and the Sierra Sky Airport, located approximately 9.6 miles southwest of the project site. Each of the airports has an Airport Land Use Compatibility Plan (ALUCP) which guides local jurisdictions in determining appropriate compatible land uses with detailed findings and policies. The City of Clovis General Plan, other City land use plans, and all City land use decisions must be compatible with the adopted ALUCP for Fresno County. The project site is not within 2.0 miles of any public or private airstrip or helipad. Therefore, the proposed project would not result in the exposure of sensitive receptors to the excessive noise levels from aircraft noise sources. The impact would be less than significant. This topic will not be included in the EIR.

[25] California Department of Transportation (Caltrans). 2019. Caltrans HeliPlates. Website: https://heliplates.dot.ca.gov (accessed April 14, 2022).

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

3.14.1 Impact Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The proposed project would consist in the construction of a 590-lot residential development for single-family residences. The proposed project would also include landscaped spaces, park areas, private streets, pedestrian, and utility infrastructure. The proposed project would also construct extensions to North Baron Avenue, Perrin Avenue, and Hammel Avenue to facilitate access to, and circulation around the project site. The project site is located within the Heritage Grove area, a growth area marked for development in the City's General Plan. The proposed project would introduce a residential use that would result in direct population growth. The project site is currently designated Medium Density Residential and zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. The proposed project would require annexation to the City of Clovis and an annexation application would be required to be submitted to the Fresno LAFCo.

Based on the City's current Housing Element,[26] the average number of persons residing in each household in Clovis is estimated to be 2.85 persons. As a result, following construction and occupation of the proposed project, it is estimated that approximately 1,682 residents would live within the proposed 590 residential units within the project site. The Clovis General Plan estimated that at full buildout of the General Plan, approximately 105,700 residents would be living in the areas located within the City's Non-SOI Planning Area (which includes the project site). As a result, the proposed project would not result in unplanned population growth because the City's General Plan identified and planned for the project site to be designated medium density residential. As such, the proposed project would be consistent with planned growth under the City's General Plan. Therefore, the proposed project would not induce substantial unplanned population growth in the City, and the impact would be less than significant. This topic will not be included in the EIR.

[26] City of Clovis. 2016. Fresno Multi-Jurisdictional 2015–2023 Housing Element. April. Website: https://cityofclovis.com/wp-content/uploads/2019/02/Clovis-Housing-Element-1.pdf (accessed September 21, 2022).

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. The proposed project would include the removal of one existing 2,679-square-foot dwelling unit and garage, an existing propane tank, a 2,000-square-foot pole barn, two sheds, and an existing driveway on the project site. The removal of these structures would not displace a substantial number of people or residences from the site. Furthermore, the proposed project would introduce 590 new single-family residences into the project site. Therefore, the proposed project would not displace substantial number of existing people or housing, requiring the construction of replacement housing. The impact would be less than significant. This topic will not be included in the EIR.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

3.15.1 Impact Analysis

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Less Than Significant Impact. The Clovis Fire Department (CFD) would provide fire protection and emergency medical services to the project site. The CFD currently has five operational fire stations in the City, with the closest station, Fire Station 3, located approximately 2.22 miles southwest of the project site. Planned growth under the General Plan would increase calls for fire protection service in Clovis. The proposed project would introduce 590 single-family residences into the project site. After approval of annexation of the project site into the City of Clovis, the proposed project would be consistent with planned growth under the City's General Plan.

The proposed project could result in an incremental increase in the demand for fire protection services. However, the proposed project would be required to comply with all applicable codes for fire safety and emergency access. In addition, the Project Applicant would be required to submit plans to the CFD for review and approval prior to the issuance of building permits to ensure the proposed project would conform to applicable building codes. Furthermore, the Project Applicant would be required to pay a Fire Facility Development Impact Fee, pursuant to Section 4.10.04 of the Clovis Municipal Code, to account for the potential impacts to fire service facilities.

The CFD would continue providing services to the project site and would not require additional firefighters to serve the proposed project. The construction of a new or expanded fire station would not be required. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services. The incremental increase in demand for services is not expected to adversely affect existing responses times to the site or within Clovis. Therefore, construction and operation of the proposed project would have a less than significant impact on fire protection. This topic will not be included in the EIR.

ii. Police protection?

Less Than Significant Impact. The Clovis Police Department (CPD) provides police protection services to the project site. The CPD headquarters are located approximately 3.3 miles southeast of the project site. Currently, CPD has 105 sworn officers, a ratio of 0.88 sworn officers per 1,000 residents. Planned growth under the General Plan would increase calls for police protection service in the City. However, the proposed project has been planned to be developed as medium density residential under the under the City's General Plan.

The proposed project could increase the demand of police protection services. The Project Applicant would be required to pay a Police Department Fee, pursuant to Section 4.11.04 of the Clovis Municipal Code, to account for the potential impacts to police protection services.

The CPD would continue to provide services to the project site and would not require additional officers to serve the project site. The construction of new or expanded police facilities would not be required. Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services and impacts to police protection would represent a less than significant impact. This topic will not be included in the EIR.

iii. Schools?

Less Than Significant Impact. Clovis Unified School District (CUSD) would provide school services to the proposed project. The proposed project involves a residential use that might generate an increase in student demand in the CUSD. The CUSD currently serves approximately 43,000 students from students living in the city of Fresno, Fresno County, and the city of Clovis. Planned growth under the General Plan and the proposed project would increase demand for school services.

The proposed project would increase the demand for school services in the vicinity. After annexation of the project site to the City of Clovis, the Project Applicant would be required to pay appropriate school developer fees at time of building permits to address potential impacts to CUSD services, as set forth in Education Code Section 17620, pursuant to Government Code 65995. Payment of school developer fees will address potential impacts related to constructing school facilities. As a result, the proposed project would not result in a substantial adverse impact associated with the provision of additional school facilities or services and impacts

related to increased demand for school services would represent a less than significant. This topic will not be included in the EIR.

iv. Parks?

Less Than Significant Impact. The proposed project would consist of a 590-lot residential development for single-family residences. The proposed project would also include the construction of a 13,930-square-foot community park, two community pools, and a recreation area. Planned growth under the General Plan would increase the demand for park facilities in the City. However, the proposed project has been planned to be developed as medium-density residential under the under the City's General Plan.

The proposed project could increase the demand for nearby parks and recreational facilities. However, the proposed project would include the construction of a private park and recreation area that would offset the demand for public parks in the vicinity of the project site. Furthermore, the Project Applicant would be required to pay any required development fees, pursuant to Section 3.4.03 of the Clovis Municipal Code, at the time building permits are obtained.

Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional park facilities, and impacts to parks would represent a less than significant impact. This topic will not be included in the EIR.

v. Other public facilities?

Less Than Significant Impact. Planned growth under the General Plan would increase the demand for public facilities in the Clovis. After approval of annexation of the project site into the City of Clovis, the proposed project would be consistent with planned growth under the City's General Plan.

Development of the proposed project could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, the increased demand on public facilities resulting from the proposed project is not expected to require the construction of new, or expansion of existing public facilities in the City. The Project Applicant would be required to pay applicable impact fees (e.g., Library Facilities Development Fee, Chapter 7.8 of the Clovis Municipal Code) to fund public facilities in the City. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The proposed project would consist of a 590-lot residential development for single-family residences. The proposed project would also include the construction of a 13,930-square-foot community park, two community pools, and a recreation area.

The development of the proposed project would result in population growth which could increase the demand for recreational facilities in the vicinity of the project site. However, the proposed project would include the construction of a private park and recreation area that would offset the use of public parks in the vicinity of the project site. Furthermore, after annexation of the project site to the City of Clovis, the Project Applicant would be required to pay applicable park impact fees, pursuant to Section 3.4.03 of the Clovis Municipal Code, at the time building permits are obtained to offset project impact on existing recreational facilities. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. The proposed project would consist of a 590-lot residential development for single-family residences. The proposed project would also include the construction of a 13,930-square-foot community park. The potential environment effects resulting from construction of the community park within the project site is included in the analysis included in this Initial Study. Potential adverse physical effects would result in less than significant impacts. This topic will not be included in the EIR.

3.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☒	☐	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Impact Analysis

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Potentially Significant Impact. The Circulation Element of the City of Clovis General Plan outlines the necessary transportation system standards and infrastructure needed to serve planned land use and development in the City of Clovis. The primary goal for the Circulation Element is to maintain and improve the road network of the City to safely and efficiently move people and goods, to reduce vehicle miles traveled through coordinated land use planning, to facilitate non-automotive travel (i.e., transit, bikes, and walking), and maintain the City's extensive recreational trail system.

The 2016 Clovis Active Transportation Plan (Active Transportation Plan)[27] supports walking, bicycling, transit, and use of other emerging modes of personal transport as alternatives to driving within Clovis, to neighboring cities, and regional destinations. The Active Transportation Plan defines the City's vision for an active transportation network and proposes a framework for implementing projects, programs, and policies to turn the vision into a reality. The Active Transportation Plan also identifies strategies to improve safety and accessibility for active forms of travel such as walking and bicycling.

Vehicular access to the project site would include East Behymer Avenue, and future extensions of North Baron Avenue, Perrin Avenue, and Hammel Avenue. The nearest transit facilities to the project site are located along West Teague Avenue and North Peach Avenue, approximately 0.5 mile south of the project site. The nearest walking and biking trail to the site includes the Dry Creek Trail (located approximately 0.65 mile southwest of the project site), and the Fresno-Clovis Rail Trail (located approximately 1.4 miles west of the project site). The nearest bike lanes to the site are located along East Shepherd Avenue and North Clovis Avenue, both of which are located approximately 0.4 mile south of the project site, respectively.

[27] City of Clovis. 2016. Active Transportation Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/12/Active-Transportation-Plan-Final.pdf (accessed April 26, 2022)

Currently, information about project compliance with existing circulation plans is insufficient to make a determination about significance of potential impacts to circulation systems in the vicinity of the project site. This topic will be included in the EIR.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

Potentially Significant Impact. Senate Bill 743 (SB 743) requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of level of service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the proposed project adds excessive car travel onto our roads, the proposed project may cause a significant transportation impact.

The *CEQA Guidelines* were amended to implement SB 743 by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states:

> [A] lead agency has discretion to evaluate a project's vehicle miles traveled (VMT), including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT and revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the proposed project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

On July 14, 2020, the City of Clovis adopted the Interim Transportation Impact Analysis Guidelines, dated July 14, 2020, pursuant to SB 743 to be effective on July 1, 2020.[28] Consistent with *CEQA Guidelines* Section 15064.3, the City of Clovis has adopted thresholds of significance to determine when a project will have a significant transportation impact based on VMT. The City has developed screening criteria to streamline the analysis for projects that meet certain criteria. A project will require a detailed VMT analysis unless it meets at least one of the City's five screening criteria:

- Projects that generate less than 500 vehicle trips per day (i.e., Single-Family Residential developments with less than 53 dwelling units).
- Local-serving retail projects with areas of 100,000 square feet and below.

[28] City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

- Projects located in a High-Quality Transit Area (HQTA) as defined on Attachment A of the City's Interim Transportation Impact Analysis Guidelines.[29]

- Residential projects in HQTAs with a high proportion of affordable housing.

- Projects located in low VMT areas, as defined on Attachment B of the City's Interim Transportation Impact Analysis Guidelines.[30]

The proposed project does not qualify for a streamlined project VMT analysis under the screening criteria identified by the City. The EIR will provide a detailed analysis of project VMT to determine the significance of potential impacts and, if necessary, identify mitigation measures to reduce potential impacts.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The proposed project would construct a 590-lot residential development for single-family residences. The development would potentially include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses. The proposed project would also result in the construction of extensions of North Baron Avenue, Hammel Avenue, and Perrin Avenue to facilitate access to, and circulation on, the project site. The proposed project would be required to construct all transportation facilities to meet the requirements of the City of Clovis to ensure that design features do not result in hazards to pedestrians, bicyclists, or drivers. In addition, the project site is located in an area surrounded by residential uses and rural residential uses, which are compatible with the proposed residential use. As a result, the proposed project would not increase hazards due to geometric design features or incompatible uses. Therefore, the impact would be less than significant, and this topic will not be included in the EIR.

d. Would the project result in inadequate emergency access?

Less Than Significant Impact. The proposed project would construct a 590-lot residential development for single-family residences. The development would include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses.

Emergency vehicles would have access to the project site via East Behymer Avenue, as well as through future extensions of North Baron Avenue, Perrin Avenue, and Hammel Avenue. Emergency access to the project site, and project vicinity would not be rendered inadequate as a result of the proposed project. The extensions of Perrin Avenue, Hammel Avenue, and North Baron Avenue

[29] City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Attachment A: High Quality Transit Areas Map. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

[30] City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Attachment B: VMT Screening Maps. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

resulting from the proposed project would increase access to emergency services in the vicinity of the project site. Therefore, the impact would be less than significant, and this topic will not be included in the EIR.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated. The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the *CEQA Guidelines*. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which

is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)).

Additional information may also be available from the NAHC's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

AB 52, which became law January 1, 2015, requires that, as part of the CEQA review process, public agencies provide early notice of a project to California Native American Tribes to allow for consultation between the tribe and the public agency. The purpose of AB 52 is to provide the opportunity for public agencies and tribes to consult and consider potential impacts to Tribal Cultural Resources (TCRs), as defined by PRC Section 2107(a). Under AB 52, public agencies shall reach out to California Native American Tribes who have requested to be notified of projects in areas within or which may have been affiliated with their tribal geographic range. Pursuant to AB 52, Big Sandy Rancheria of Western Mono Indians, Cold Springs Rancheria of Mono Indians, Dumna Wo-Wah Tribal Government, Kings River Choinumni Farm Tribe, North Fork Rancheria of Mono Indians, North Valley Yokuts Tribe, Picayune Rancheria of Chuckchansi Indians, Table Mountain Rancheria, Traditional Choinumni Tribe, Tule River Indian Tribe, Wuksache Indian Tribe/Eshom Valley Band were invited to consult. Table Mountain Rancheria sent a response on November 15, 2022, requesting the CRA prepared for the project and did not request any further consultation. No further responses or requests for consultation were received by the City within the 30-day consultation period beginning November 4, 2022, and ending December 3, 2022. As such, AB 52 requirements for the proposed project have been fulfilled. AB 52 consultation request and response letters are included in Appendix A of this Initial Study.

No tribal cultural resources or historical resources were identified on the project site. If any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resource professional. In addition, Mitigation Measures CUL-1 and CUL-2 included above in Section 3.5, Cultural Resources, would apply to the proposed project and would reduce potential impacts to unknown cultural and historical resources to less than significant. This topic will not be included in the EIR.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. The proposed project would require the City's Public Utilities Department to provide water services to the project site. The project would require the construction of a 24-inch water main along Behymer Avenue from Clovis Avenue to Baron Avenue. Additionally, the project would construct a 24-inch main along Baron Avenue, from Behymer Avenue to Perrin Avenue. The proposed improvements would be consistent with the City's Water Master Plan and would be consistent with the City's specifications on materials, depth, and resurfacing.

Electric power and natural gas would be provided by PG&E. The proposed project may require construction of additional electric and gas infrastructure to serve the project site.

Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site and redirected towards FMFCD Basin BY, located adjacent to the project site's eastern boundary. A drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows from the project site towards Basin BY. Stormwater flows from upstream Basin BY would be directed to the west via the existing aqueduct located under the Enterprise Canal. The proposed project would comply with all FMFCD urban storm water system designs for construction of proposed infrastructure.

As discussed in this Initial Study, the impacts related to construction of the proposed project and associated utilities would not result in significant impacts or would be reduced to less than significant levels through the implementation of various mitigation measures. In the case of air quality and GHG emissions, additional information would be required to identify potential impacts related to construction and operation of required utilities. However, the impacts related to construction of utilities required for the proposed project would result in temporary construction impacts. As a result, impacts related to relocation or construction of new water, sewer and stormwater facilities would be less than significant. This topic will not be included in the EIR.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The City of Clovis Public Utilities Department would supply water to the project site. Based on the City's 2020 Urban Water Management Plan Update, the water supplies under normal conditions for the City from 2025 (50,739 AFY) to 2040 (74,650 AFY) would be sufficient to cover the City's yearly water demand for this period (i.e., demand of 39,737 AF by 2025 and 52,598 AF by 2040).[31]

During a single dry year, projected water supplies for the City from 2025 (37,838 AF/year) to 2040 (53,109 AF)/year) would be sufficient to cover the City's yearly water demand for this period (i.e., 34,272 AF by 2025 and 47,133 AF by 2040).

After a 5-year dry period, water supplies for the City from 2025 (49,743 AFY) to 2040 (73,716 AFY) would be sufficient to cover the City's yearly water demand for this period (i.e., 37,825 AF by 2025 and 50,043 AF by 2040).

After completing the requirements and paying fees for annexation of the project site into the City of Clovis and paying applicable development fees, the proposed project would be consistent with growth under the City's General Plan and would be accounted for in the City's UWMP water demand projections and allocation. Therefore, the proposed project would have sufficient water supplies available to meet future demand during normal, dry and multiple dry years, and the impact would be less than significant. This topic will not be included in the EIR.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. The City of Clovis Public Utilities Department provide wastewater services to the project site. Wastewater from the City of Clovis is treated on the Clovis Wastewater Treatment Plant and on the Fresno-Clovis Regional Wastewater Reclamation Facility. The proposed project would not result in a demand that would exceed the capacity of the wastewater treatment facility. Furthermore, in 2017 the City adopted an update to the Wastewater Collection System

[31] City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed April 22, 2022).

Master Plan[32] which determined that the existing and planned wastewater collection system facilities can accommodate the proposed land uses and anticipated growth under the approved General Plan, including the project site and annexation area. For that reason, the impact would be less than significant. As such, the proposed project would be impacts associated with treatment of wastewater would be less than significant. This topic will not be included in the EIR.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Solid waste in the City of Clovis is collected by the Public Utilities Department. Solid waste generated within the City is delivered to three landfills: City of Clovis Landfill, American Avenue Disposal Site, and Avenal Regional Landfill.

The American Avenue Disposal Site (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day.[33] The Clovis Landfill (i.e., City Of Clovis Landfill 10-AA-0004) has a remaining capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of April 30, 2047.[34] The Avenal Regional Landfill (i.e., Avenal Regional Landfill 16-AA-0004) has a remaining capacity of 28,900,000 cubic yards, a maximum permitted throughput of 6000 cubic yards, and an estimated closure date of March 31, 2056.[35]

Operation of the proposed project would generate approximately 7,216 pounds of solid waste per day or about 1,317 tons of solid waste per year.[36] Given the available capacity at the landfills, the additional solid waste generated by the proposed project is not anticipated to cause the facility to exceed its daily permitted capacity. As such, the proposed project would be served by a landfill with sufficient capacity to accommodate the proposed project's waste disposal needs, and impacts

32 City of Clovis. 2017. Wastewater Collection System Master Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/10/2017-Draft-Wastewater-Master-Plan.pdf (accessed September 21, 2022).

33 California Department of Resources Recycling and Recovery (CalRecycle). n.d. SWIS Facility/Site Summary. American Avenue Disposal Site (10-AA-0009). Website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/352 (accessed April 19, 2022).

34 California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Summary. City of Clovis Landfill (10-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4529?siteID=347 (accessed April 19, 2022).

35 California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Summary. Avenal Regional Landfill (16-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3755?siteID=898 (accessed April 19, 2022).

36 California Department of Resources Recycling and Recovery (CalRecycle). n.d. Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates (accessed December 12, 2022). CalRecycle estimates that residential uses generate approximately 12.23 pounds of solid waste per day per household. Multiplied by 590 residential units, the total solid waste generated by the proposed project would be 7.215.7. To calculate solid waste generated per year, 7,215.7 was multiplied by 365 days to reach 2,633,730.5 pounds, or 1,316.87 tons per year.

associated with the disposition of solid waste would be less than significant. This topic will not be included in the EIR.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The proposed project would comply, as applicable, with CALGreen, Senate Bill 1383 (SB 1383), and Policies 2.1 through 2.6 of the Public Facilities and Services Element of the City's General Plan, which provides waste management goals and recommendations for reduction and control of solid waste in the City as follows:

> **Policy 2.1: Minimize landfill disposal of solid waste.** Promote solid waste source reduction, reuse, and recycling; composting; and the environmentally-safe transformation of wastes.
>
> **Policy 2.2: Waste diversion rate.** Meet the state's current and future waste diversion goals through the city's recycling and diversion programs.
>
> **Policy 2.3: Expanded recycling.** Increase recycling by commercial, industrial, and multifamily generators.
>
> **Policy 2.4: Green and household hazardous materials waste.** Encourage citywide participation in green waste reduction and household hazardous waste disposal programs.
>
> **Policy 2.5: Clovis landfill.** Maintain at least 15 years of ongoing landfill capacity.
>
> **Policy 2.6: Solid waste facility encroachment.** Protect existing or planned solid waste facilities from encroachment by incompatible land uses that may be allowed through discretionary land use permits or changes in land use or zoning designations.

The proposed project would dispose of waste in accordance with applicable federal, State, and local recycling, reduction, and waste requirements and policies. As a result, the proposed project would not conflict with federal, State, and local management and reduction statutes and regulations related to solid waste, and the impact would be less than significant. This topic will not be included in the EIR.

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Impact Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed project would include the construction of a 590-lot residential development for single-family residences. The development would include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses. The project site is surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north.

The proposed project would construct extensions of North Baron Avenue, Perrin Avenue and Hammel Avenue to facilitate access to, and circulation around the project site. Although construction of the roadway extensions would affect circulation of vehicles along Perrin Avenue, Hammel Avenue and North Baron Avenue, these impacts would be temporary and would not substantially or permanently impair emergency evacuation in Clovis.

Therefore, the proposed project would not substantially impair any nearby roadways that may serve as emergency evacuation routes or interfere with any emergency evacuation routes within the City of Clovis or an adopted emergency response plan. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The project site is located in an area mapped by CAL FIRE as LRA Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a VHFHSZ.[37] The proposed project would comply with City and County fire safety regulations for project construction and operation. Therefore, the proposed project would not exacerbate wildfire risks and potentially expose project occupants to wildfires. The impact would be less than significant. This topic will not be included in the EIR.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The proposed project would require the extension of roads and installation of water and stormwater drainage infrastructure to serve the project site. The proposed project would construct extensions of North Baron Avenue, Hammel Avenue and Perrin Avenue to facilitate access to, and circulation around the project site. As discussed above, the proposed project is not located within a VHFHSZ. Additionally, the proposed project would comply with City and County fire safety regulations for project construction and operation, which would mitigate potential risks associated with construction of roads and installation of water and wastewater infrastructure. As a result, a less than significant impact would occur. This topic will not be included in the EIR.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. As discussed above, the project site is not located within a VHFHSZ. The project site is also a relatively flat area and is not adjacent to any hills. In general, the potential for land sliding or slope failure in the City is very low, and the project site would not be susceptible to landslides. Parts of the project site are located within special flood hazard zones; however, the proposed project would implement standards and design requirements from the City of Clovis Municipal Code Section 8.12, Floodplain Management. Therefore, the proposed project would not expose people or structures to significant post-fire risks, and the impact would be less than significant. This topic will not be included in the EIR.

[37] California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fresno County Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed April 14, 2022).

4.0 LIST OF PREPARERS

LSA
2565 Alluvial Avenue, Suite 172
Clovis, CA 93611
Amy Fischer, Principal in Charge
Kyle Simpson, Project Manager
Nathaly Granda Bustamante, Assistant Environmental Planner

157 Park Place
Point Richmond, CA 94801
Patty Linder, Graphics/Document Production

285 South Street, Suite P
San Luis Obispo, CA 93401
Kerrie Collison, Senior Cultural Resources Manager

Argonaut Ecological Consulting
2377 Gold Meadow Way, Suite 100
Gold River, CA 95670
Kathy Kinsland, CISEC, QSP, TOR-QISP, Biological Resources Regulatory Specialist/Senior Scientist

Peak & Associates
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762
Melinda A. Peak, Senior Historian/Archeologist

This page intentionally left blank

5.0 REFERENCES

Argonaut Ecological Consulting. 2022. Biological Resources Assessment – Tentative Tract 6343 and City of Clovis Annexation Area. September 26.

California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April.

California Department of Fish and Game. 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California. November 8.

_____. 2012. Staff Report on Burrowing Owl Mitigation. March 7.

California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fresno County Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed April 14, 2022).

California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Summary. American Avenue Disposal Site (10-AA-0009). Website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/352, (accessed April 19, 2022).

California Department of Toxic Substances Control (DTSC). 2007. EnviroStor. Website: https://www.envirostor. dtsc.ca.gov/public/map/?myaddress=clovis (accessed April 14, 2022).

California Department of Transportation (Caltrans). 2019. Caltrans HeliPlates. Website: https://heliplates.dot.ca.gov (accessed April 14, 2022).

_____. n.d. State Scenic Highways. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways (accessed May 12, 2022).

California Environmental Protection Agency (CalEPA). 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List. Website: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a (accessed April 14, 2022).

California Department of Resources Recycling and Recovery (CalRecycle). Year?? Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates (accessed April 19, 2022).

_____. n.d. SWIS Facility/Site Summary. City of Clovis Landfill (10-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4529?siteID=347 (accessed April 19, 2022).

_____. n.d. SWIS Facility/Site Summary. Avenal Regional Landfill (16-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3755?siteID=898 (accessed April 19, 2022).

City of Clovis. 2014. General Plan and Development Code Update PEIR. Website: https://cityofclovis.com/planning-and-development/planning/master-plans/general-plan/environmental-impact-report/ (accessed December 8, 2022).

City of Clovis. 2016. Active Transportation Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/12/Active-Transportation-Plan-Final.pdf (accessed April 26, 2022)

City of Clovis. 2016. Fresno Multi-Jurisdictional 2015–2023 Housing Element. Website: https://cityofclovis.com/wp-content/uploads/2019/02/Clovis-Housing-Element-1.pdf (accessed September 21, 2022). April.

City of Clovis. 2017. Wastewater Collection System Master Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/10/2017-Draft-Wastewater-Master-Plan.pdf (accessed September 21, 2022).

City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed December 6, 2022).

Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center: Search By Address. Website: https://msc.fema.gov/portal/search?AddressQuery#searchresultsanchor (accessed April 14, 2022).

Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model.

Fresno Metropolitan Flood Control District (FMFCD). 2020. Fresno-Clovis Storm Water Quality Management Program: FY 2019-20 Annual Report. October 1. Website: http://www.fresnofloodcontrol.org/wp-content/uploads/2020/09/2019-20-Annual-Report-FINAL.pdf (accessed December 6, 2022).

LSA Associates, Inc. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February 2022.

Natural Resources Conservation Service. n.d. Web Soil Survey. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed April 14, 2022).

Peak & Associates, Inc. 2022. Cultural Resource Assessment for the Tentative Tract Map 6343 and City of Clovis Annexation Area, County of Fresno, California. September 21.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015a. Guidance for Assessing and Mitigating Air Quality Impacts.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015b. Air Quality Thresholds of Significance – Criteria Pollutants. Website: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (accessed April 14, 2022).

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2016. 2016 Plan for the 2008 8-Hour Ozone Standard. Website: https://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed April 14, 2022).

Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. May 31.

This page intentionally left blank

APPENDIX A

AB 52 CONSULTATION REQUEST AND RESPONSE LETTERS

This page intentionally left blank

City of Clovis

Department of Planning and Development Services

CITY HALL . 1033 FIFTH STREET . CLOVIS, CA 93612

Native American Tribal Consultation Request

Date: 11/4/2022

Project Title: TM6343 et al

Local Government/Lead Agency: City of Clovis Planning Division

Project Manager: Lily Cha-Haydostian, Senior Planner Phone: (559) 324-2335

Address: 1033 Fifth Street City: Clovis St: CA Zip: 93612

Email: lilyc@cityofclovis.com Fax: (559) 324-2844

Project Location: See attached map

Project Proponent: Wilson Premier Homes, Inc. (Applicant)
7550 N. Palm Avenue, Suite #102
Fresno, CA 93711

Local Action Type:

- [ ] General Plan Amendment
- [ ] Specific Plan Amendment
- [X] Project Subject to AB52
- [ ] Pre-Planning Outreach

Project Description:
RO305; a request for the annexation of 246 acres of property located southwest of Behymer and Sunnyside Avenues.

GPA2021-003; a request to redesignate 71.54 acres of property from the the City of Clovis Medium Density to Medium High Density

R2021-006; a request to prezone 71.54 acres of property to the City of Clovis R-1-PRD Zone District

TM6343; a request to subdivide 71.54 acres of property to 590 lots

PDP2021-001; a request for the approval of a planned development permit

We request that you respond within 30 days per the requirements of Assembly Bill 52 (AB 52) [Public Resources Code Section 5097.94] and also thank you in advance for your participation in the review process for this project. If you need additional materials or have any questions, please feel free to contact the Project Manager listed above.

This page intentionally left blank

TABLE MOUNTAIN RANCHERIA
CULTURAL RESOURCES DEPARTMENT

Brenda D. Lavell
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Jenna Gosselaar
Tribal Secretary/Treasurer

Richard L. Jones
Tribal Council Member-At-Large

Michelle Heredia-Cordova
Tribal Council Member-At-Large

"Preserving our past, Protecting our future"

Robert Pennell
Cultural Resources Department Director

Office (559) 325-0351
Fax (559) 325-0394

23736 Sky Harbour Road

P.O. Box 410

Friant, California 93626

Office (559) 316-6330

Fax (559) 822-6340

CERTIFIED 2768 6008

November 15, 2022

City of Clovis
Lily Cha-Haydostian, Senior Planner
1033 Fifth Street
Clovis, Ca. 93612

RE: TM6343 et al, General Plan Amendment and Project Subject to AB52

Dear: Lily Cha-Haydostian

Table Mountain Rancheria is responding to your letter dated, November 04, 2022, regarding, proposed TM6343 et al, General Plan Amendment and Project Subject to AB52. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

If you have already conducted a record search, please provide Table Mountain Rancheria with copies of any cultural resource report you may have.

At this time, please contact our office at (559) 325-0351 or rpennell@tmr.org to coordinate a discussion and meeting date regarding your project.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director

This page intentionally left blank

APPENDIX B

WATER INFRASTRUCTURE INVESTIGATION

This page intentionally left blank

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

455 W
Clovis, CA 93611-0242
Tel: (559) 449-2700
Fax: (559) 449-2715
www.provostandpritchard.com

Memorandum

To:	Gene Abella, PE, City of Clovis
From:	Nick Jacobson, PE
Subject:	Water Infrastructure Investigation for Tentative Tract Map 6343
Date:	December 19, 2022

Provost and Pritchard Consulting Group ("P&P") has prepared this memorandum summarizing the findings of our investigation into the water system infrastructure required to serve a proposed single-family residential development generally located along the east side of Clovis Avenue between Perrin and Behymer Avenues.

Project Information

It is our understanding that Tentative Tract Map (Tract) 6343 (Project) will have a land use designation of medium high density residential (7.1 to 15.0 dwelling units per acre [du/ac]), which differs from the original designation of medium density (4.1 to 7.0 du/ac), originally considered for this area in the City of Clovis Water Master Plan (WMP) Update – Phase III (Provost & Pritchard, 2018). The Project covers an area of approximately 71.54 gross acres (64.36 net acres), encompassing two parcels entirely, and a portion of a third parcel (APNs 556-040-08, 07, and 556-030-14) within the Northwest Village planning area.

There is no existing infrastructure adjacent to the project footprint. It is understood that before the Project is built several master planned water mains will be constructed near or adjacent to the Project as part of the buildout of Tract 6200 including:

- *a 12-inch main in Marion Avenue from Perrin Avenue to Heirloom (Pryor) Avenue*
- *a 12-inch main in Heirloom (Pryor) Avenue from Marion Avenue to Sunnyside Avenue*
- *a 16-inch main in Baron Avenue from Clovis Avenue to Perrin Avenue*

Additionally, an added transmission water main is anticipated with Tract 6205, east of Sunnyside Avenue but it is not anticipated to be constructed prior to Tract 6343:

- *a 12-inch main in Heirloom (Pryor) Avenue from Sunnyside Avenue and continuing south through the Tract, to Shepherd Avenue.*

There are master planned water mains that will be constructed as part of the Tract 6343 improvements, including:

- *a 24-inch main in Behymer Avenue from the west limits of Tract 6343 to Baron Avenue*
- *a 24-inch main in Baron Avenue from Behymer Avenue to Perrin Avenue*

Mains internal to and along the frontage of Tract 6343 will be constructed as part of the Project. It is anticipated that the 12-inch main in Clovis Avenue from Baron Way to Behymer Avenue along with the portion of the 24-inch mains in Behymer Avenue between Baron Way and Clovis Avenue not along the frontage of Tract 6343 may also be constructed with this Project. Collectively these mains would connect to infrastructure associated with Tract 6200 to the southeast of the Project. Collectively, these existing and planned facilities convey or will convey water from the surface water treatment plant which is located approximately 5.5 miles to the southeast of the Project. This portion of Clovis' potable water system is within the pressure zone called "Zone 2." Figure 1 shows the existing and proposed infrastructure in the area.

The Project straddles the Kings River service area boundary for Fresno Irrigation District (FID) therefore approximately half of the Project is within the Kings River service area and the remaining half is outside the Kings River service area for FID. The portion of the project within the service area has access to water from the Kings River as its source of supply, while the portion outside of the service area does not. The existing project site consists of a residential dwelling, fallow land, and various row crop plantings. The proposed use will consist of a new 590-unit single family residential development on 71.54 gross acres

Assumptions

The following assumptions apply to this investigation:

- The City requires a minimum of two points of connection to the existing water system.
- Developer is responsible for sizing all water mains and other water related infrastructure internal to the Project.
- The Clovis Fire Department (CFD) requires a minimum fire flow of 1,800 gallons per minute (gpm) and a minimum residual pressure of 35 pounds per square inch (psi), per CFD Standard #2.3.
- Existing infrastructure sizes based on GIS data from the City (see Figure 1).
- Recycled water will not be applied to public landscaping surrounding the Project.
- Infrastructure conditioned on Tract 6200 will be constructed prior to development of Tract 6343.
- Tract 6200 is modeled as medium density residential.
- Tract 6343 is modeled as medium high density residential (MHDR).
- Existing and proposed Water system demands will be based on unit demand from the *Water Master Plan Update Phase III - Facilities Plan* (Provost & Pritchard, 2018).
- The analysis will reflect the demands associated with existing developments in the area based on actual land use; undeveloped areas are modeled utilizing land use designations specified in the General Plan. Proposed demands will be modeled using the above referenced land use designations rather than that shown in the General Plan.
- Figure 1 shows the existing and master planned water mains and facilities in the vicinity of the Project, including those conditioned with Tract 6200 shown as existing.
- For Alternative 1 the analysis assumed the transmission grid main infrastructure shown as existing and future (See Figures 2, and 3) as well as the proposed tank, booster pump

station, and tank fill valve, have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort.

- For Alternative 2 the analysis assumed the transmission grid main infrastructure shown as existing and future (See Figures 4 and 5) have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort.
- For Alternative 3 the analysis assumed the transmission grid main infrastructure shown as existing and future (See Figures 6 and 7), have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort.
- For Alternative 4, (See Figures 8 and 9), the analysis assumed the transmission grid main infrastructure shown as existing have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort. No future infrastructure is assumed.
- The system is operating with all valves open.
- System velocities should not exceed 10 feet per second (fps).

This investigation will include analysis of whether the existing (or soon to be existing) water system, as described above and shown on the attached figures, will be sufficient to provide up to maximum day demand and also meet Maximum Day Demand (MDD) plus Fire Flow (MDD+FF) demands per the WMP requirements both with and without the City's Surface Water Treatment Plant (SWTP) in operation. The analyses without the SWTP are modeled with a reduced demand consistent with that historically experienced in the autumn months when the SWTP is not operational due to canal maintenance activities.

Water Demand

Potable water demands for the Project were estimated using land-use-based unit water demand factors from the WMP. Table LU-2 in the Land Use Element of the City General Plan (GP) states that MHDR has an allowable density ranging from 7.1 – 15.0 du/ac. The proposed use equates to a dwelling unit density of approximately 8.25 du/ac, consistent with MHDR land use. A separate water supply assessment (WSA) was prepared by P&P in September 2022. The WSA estimated water demands for the Project. For consistency, the demand estimates stated in the WSA were used for this analysis. For specifics surrounding Project water demands refer to the WSA.

Infrastructure

The Project is comprised of three (3) parcels of mostly row crop agricultural land a residential dwelling generally located along the east side of Clovis Avenue between Perrin and Behymer Avenues. Because of the limited existing backbone infrastructure in the area, this development will depend on the construction of infrastructure planned to be built with Tract 6200. The other transmission mains near the Project are understood to be existing, as shown on Figure 1. Design

of the required water mains internal to the Project will be the responsibility of the Project developer.

Water Supply

Urbanization within Clovis occurs both inside and outside the Kings River service area for Fresno Irrigation District (FID), therefore not all lands have access to this water source. Lands generally located south and west of the Enterprise Canal are within the Kings River service area and as such are entitled to an average annual allotment of approximately 2.24 acre-feet per acre (AF/ac). The MHDR land use has a unit demand greater than the 2.24 AF/ac supply available. The City adopted an ordinance requiring new development with demands exceeding the allotment to pay fees, so the City can acquire additional water supply to serve the development. The Project will need to pay for supplies for demands over and above the FID available supply for the Project area within FID[1] and for all demands for the Project area outside FID, as shown below. For additional details on water supply for the Project, refer to the WSA (Provost & Pritchard, September 2022) prepared for the Project.

Table 1. Reconciliation of Surface Water Supply and Demand

Land Use Category	Area (ac)	Land Use Demand Factor (AFY/ac)	Annual Average Demand (AFY)	FID Entitlement (AFY)	Additional Supply Required (AFY)
Proposed					
Medium-High Density Residential – within FID	38.6	3.3	127.4	86.5	(40.9)
Medium-High Density Residential – outside FID	32.9	3.3	108.6	0.0	(108.6)
Proposed Total	71.5	3.3	236.0	86.5	(149.5)

Evaluation

The City has requested an investigation, utilizing the current City hydraulic model, to determine whether the proposed infrastructure in the vicinity of the Project (Figure 1) will provide adequate service during MDD and MDD+FF for several infrastructure scenarios including:

- Alternative 1: with 3.5 million gallons of storage capacity at the T-9 site[2].
- Alternative 2: with no storage capacity at the T-9 site and construction of water mains south of Shepherd Avenue and along Sunnyside and Nees Avenues, connecting to the existing water system in Nees Avenue (WMP designated mains P-3, P-4, and P-7).
- Alternative 3: with no storage capacity at the T-9 site and construction of water mains south of Shepherd Avenue and along Sunnyside and Teague Avenues, connecting to the existing water system at Fowler Avenue (WMP designated mains P-3, and P-6).

[1] Approximately 54 percent of the Project Area lies within the FID King River service area boundary.
[2] The T-9 water storage tank and booster pump site is at the northwest corner of Perrin and Sunnyside Avenues.

- Alternative 4: no storage capacity at the T-9 site, and only utilizing existing infrastructure and previously constructed infrastructure associated with Tract 6200.

As shown on Figure 1, infrastructure associated with Tract 6343, was modeled with 8-inch mains internal to the Project. Also, the results of this evaluation rely on the infrastructure that has been conditioned on Tract 6200 being constructed and operational.

Maximum Day Demand Analyses

Alternative 1

With an Operational SWTP

The hydraulic model analysis results with the SWTP operational indicates no pressure deficiencies internal to the Project. Minimum pressures during the MDD scenario are all above 40 psi.

Without an Operational SWTP

The hydraulic model analysis results with the SWTP not operational indicates no pressure deficiencies in Tracts 6343. The model results did show a portion of the system with minimum pressures below 40 psi in the Harlan Ranch portion of the system, mainly east of Sanders Avenue. Minimum pressures in Harlan Ranch dropped in places to approximately 31 psi during the peak demand hour of the MDD scenario without the SWTP operational. As stated above, while typically during MDD the distribution system pressures should be over 40 psi, the results of the analysis are not below minimum required pressure of the system of 20 psi (Title 22 requirement). The deficiencies identified in the model only last for a short duration during the morning hour from 6:00 AM until about 7:00 AM. Average pressures throughout the time duration in this scenario were all over 40 psi for the analysis.

Alternative 2

With an Operational SWTP

The hydraulic model analysis results with the SWTP operational indicates no pressure deficiencies internal to the Project. Minimum pressures during the MDD scenario are all above 40 psi.

Without an Operational SWTP

The hydraulic model analysis results with the SWTP not operational indicates no pressure deficiencies in Tracts 6343. The model results did show a portion of the system with minimum pressures below 40 psi in the Harlan Ranch portion of the system. The area that shows minimum pressures below 40 psi has a larger footprint than the area identified in Alternative 1. For Alternative 2, the general area showing minimum pressures below 40 psi is in Harlan Ranch east of Locan Avenue. Minimum pressures in this area dropped in places to approximately 27 psi during the peak demand hours of the MDD scenario without the SWTP operational. As stated above, while typically during MDD the distribution system pressures should be over 40 psi, the results of the analysis are not below minimum required 20 psi pressure (Title 22) of the system.

The deficiencies identified in the model only last for a short duration during the morning hours from 5:45 AM until about 8:00 AM. Average pressures throughout the time duration in this scenario were all over 40 psi for the analysis.

Alternative 3

With an Operational SWTP

The hydraulic model analysis results with the SWTP operational indicates no pressure deficiencies internal to the Project. System wide, minimum pressures during the MDD scenario are all above 40 psi.

Without an Operational SWTP

The hydraulic model analysis results with the SWTP not operational indicates no pressure deficiencies in Tracts 6343. The model results did show a portion of the system with minimum pressures below 40 psi in the Harlan Ranch portion of the system. The area that shows minimum pressures below 40 psi has a larger footprint than the area identified in Alternative 1. For Alternative 3, the general area showing minimum pressures below 40 psi is in Harlan Ranch east of Locan Avenue, similar to the footprint identified in Alternative 2. Minimum pressures in this area dropped in places to approximately 27 psi during the peak demand hours of the MDD scenario without the SWTP operational. As stated above, while typically during MDD the distribution system pressures should be over 40 psi, the results of the analysis are not below minimum required pressure of the system. The deficiencies identified in the model only last for a short duration during the morning hours from 5:45 AM until about 8:00 AM. Average pressures throughout the time duration in this scenario were all over 40 psi for the analysis.

Maximum Day Demand Plus Fire Flow

Alternative 1

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 58 psi (see Figure 2). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,365 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 64 psi (see Figure 3). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,365 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 1 because this analysis assumes that the SWTP is not operational during a lower demand period described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Alternative 2

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 54 psi (see Figure 4). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,366 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 58 psi (see Figure 5). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,360 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 2 because this analysis assumes that the SWTP is not operational during a lower demand period described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Alternative 3

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 56 psi (see Figure 6). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,366 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 60 psi (see Figure 7). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,356 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 3 because this analysis assumes that the SWTP is not operational during a lower demand period described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Alternative 4

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures

internal to the Project range from approximately 35 psi to approximately 52 psi (see Figure 8). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 3,970 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 58 psi (see Figure 9). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,350 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 4 because this analysis assumes that the SWTP is not operational during a lower demand period as described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Conclusion

The modeling analysis indicates that the proposed infrastructure within the Project, as shown on the attached figures, along with the proposed connections points should be able to receive adequate flow and pressure during an MDD scenario and during an MDD+FF scenario with the SWTP operational. With the SWTP not in operation, the analysis shows that the system should be able to deliver MDD and MDD+FF scenarios as well. The City should note that the ability to deliver water to satisfy fire flow requirements without the aid of the SWTP is applicable to lower demand periods such as those experience during the autumn timeframe.

Based on information collected during this investigation and the City's adherence to recommendations from prior water supply planning efforts, the existing and planned water distribution system and recommended connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. The Project may proceed with the existing infrastructure and the planned infrastructure along the Project frontage as shown in Alternative 4. Additional master planned infrastructure, discussed in Alternatives 1, 2 and 3 are not required to deliver adequate flow and provide sufficient pressure to the Project, but are recommended, in part, to provide system redundancy to the Project area.

Serving this Project should not negatively impact the City's ability to provide a supply and delivery of water to reasonably foreseeable users within the City assuming adherence to recommendations from prior water resources planning efforts. However, to understand the cumulative impacts to supplies and other major water infrastructure, the City should be tracking changes in demand as part of the development process in order to determine when projects with greater demand are offset by projects with demands lower than originally planned.

Respectfully,

Nicholas Jacobson

Enclosures:

- Figure 1 – Potable Water Infrastructure
- Figure 2 – Alternative 1 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 3 – Alternative 1 – Maximum Day Demand plus Fire Flow without Operational SWTP
- Figure 4 – Alternative 2 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 5 – Alternative 2 – Maximum Day Demand plus Fire Flow without Operational SWTP
- Figure 6 – Alternative 3 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 7 – Alternative 3 – Maximum Day Demand plus Fire Flow without Operational SWTP
- Figure 8 – Alternative 4 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 9 – Alternative 4 – Maximum Day Demand plus Fire Flow without Operational SWTP

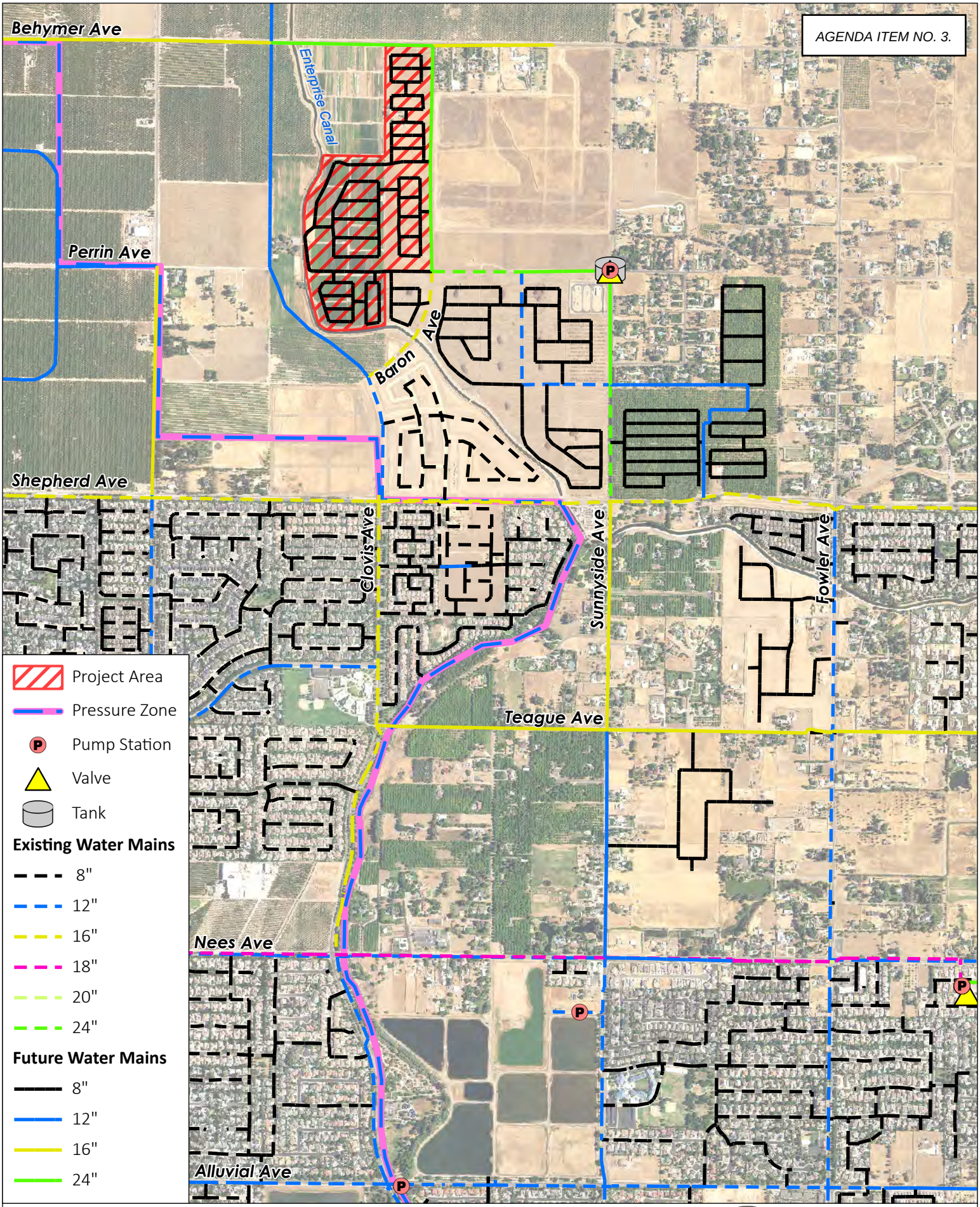


Figure 1: Existing Infrastructure

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

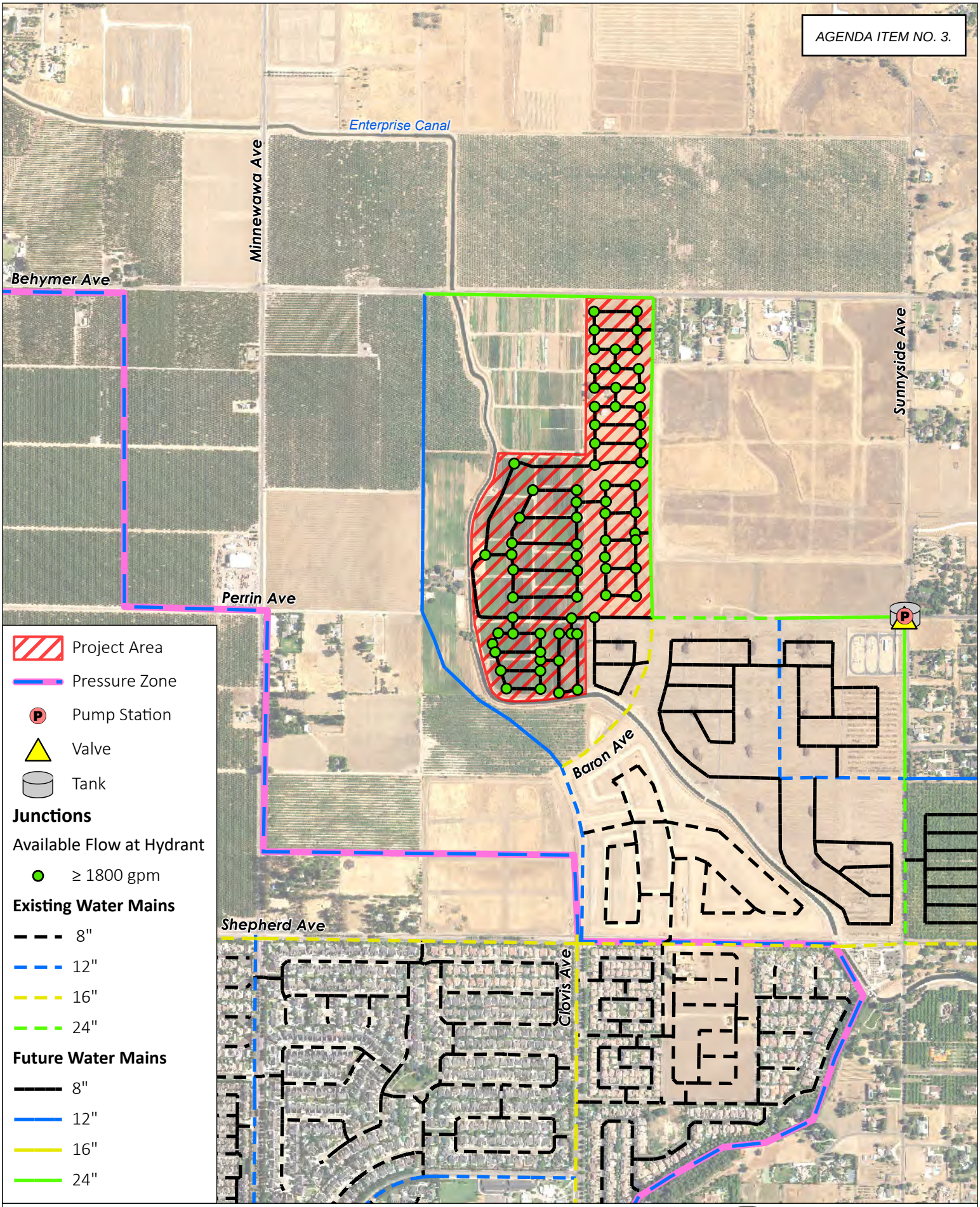


Figure 2: Alternative 1 Maximum Day Demand Plus Fire Flow with Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

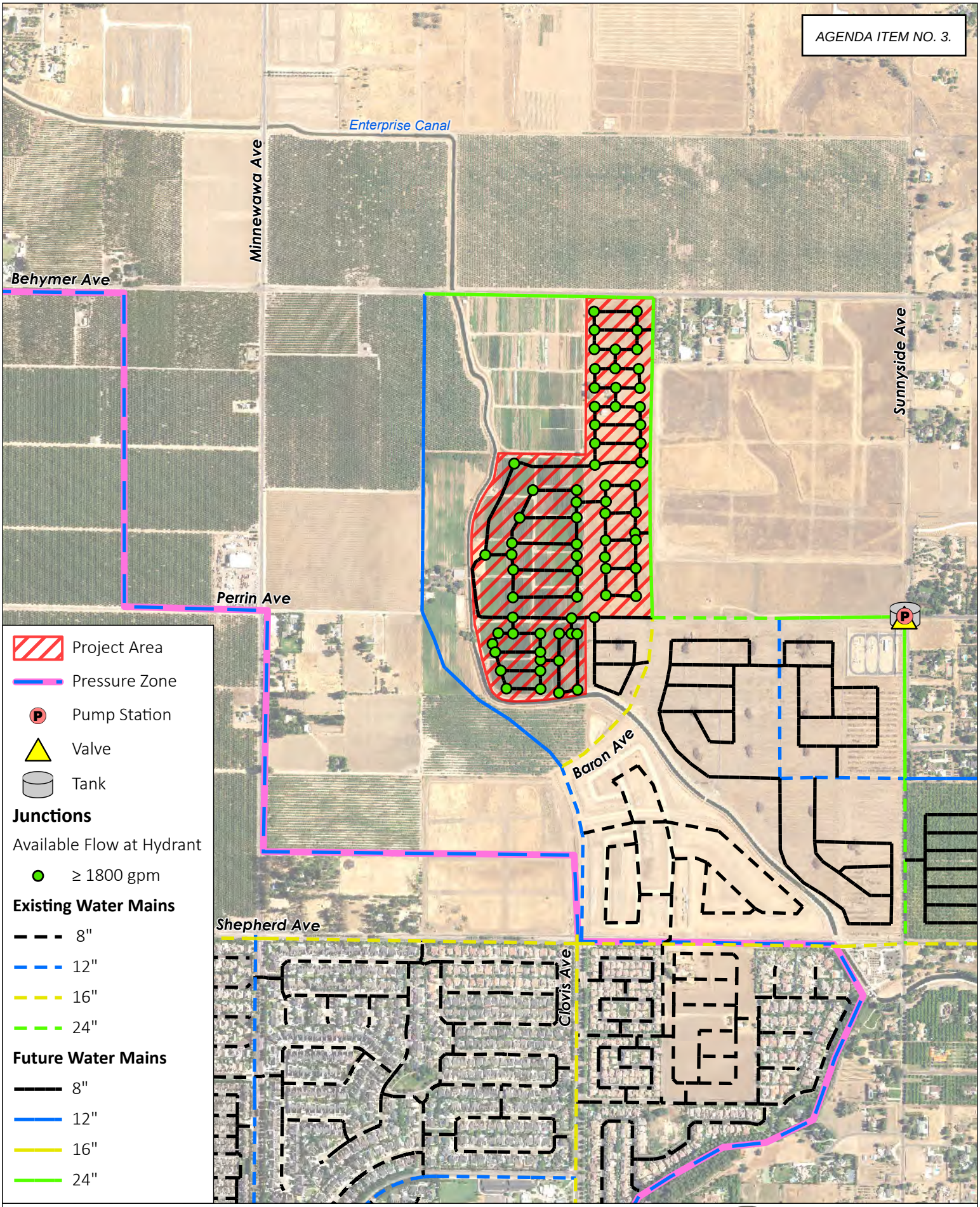


Figure 3: Alternative 1 Maximum Day Demand Plus Fire Flow without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

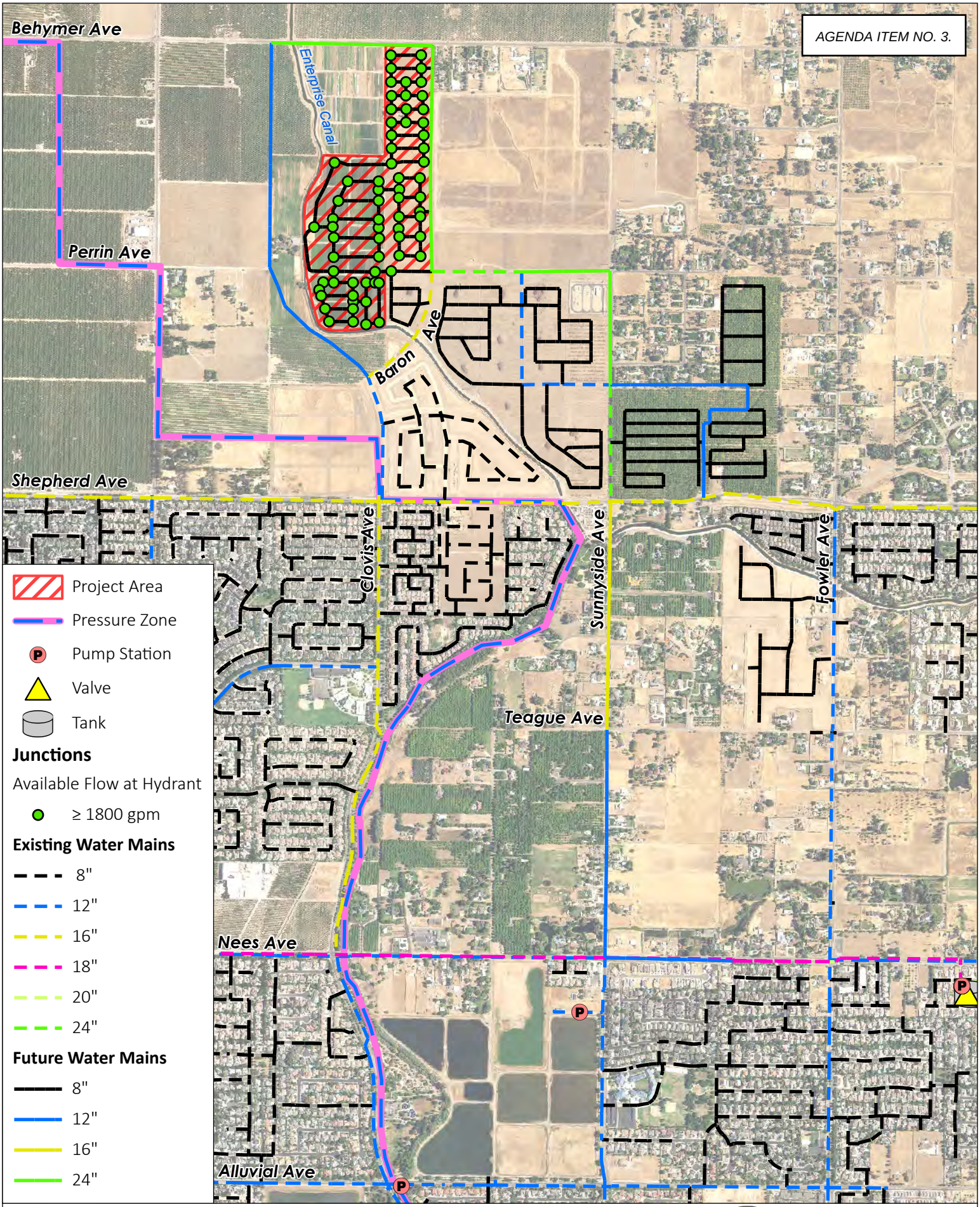


Figure 4: Alternative 2 Maximum Day Demand Plus Fire Flow with Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

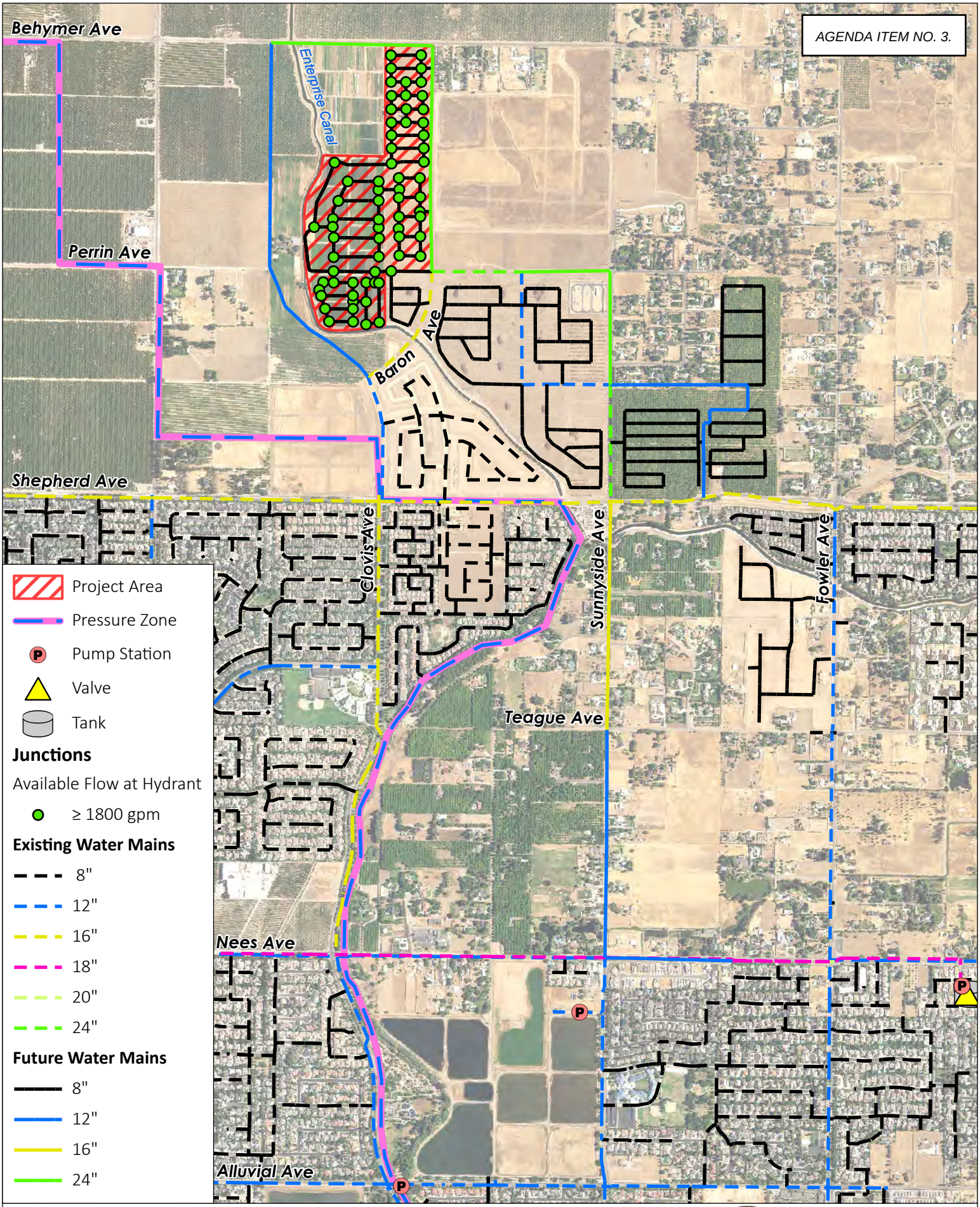


Figure 5: Alternative 2 Maximum Day Demand Plus Fire Flow without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

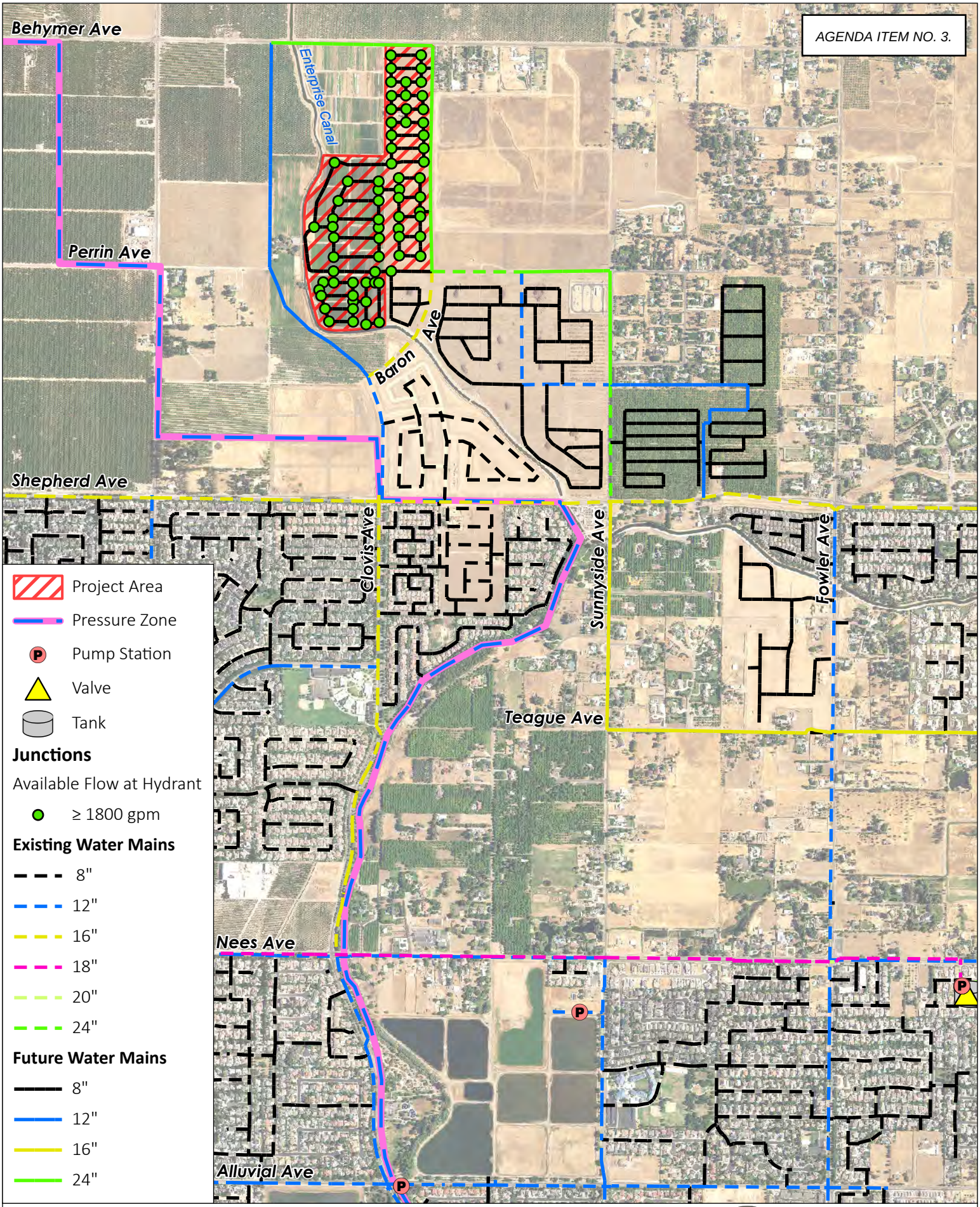


Figure 6: Alternative 3 Maximum Day Demand Plus Fire Flow with Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

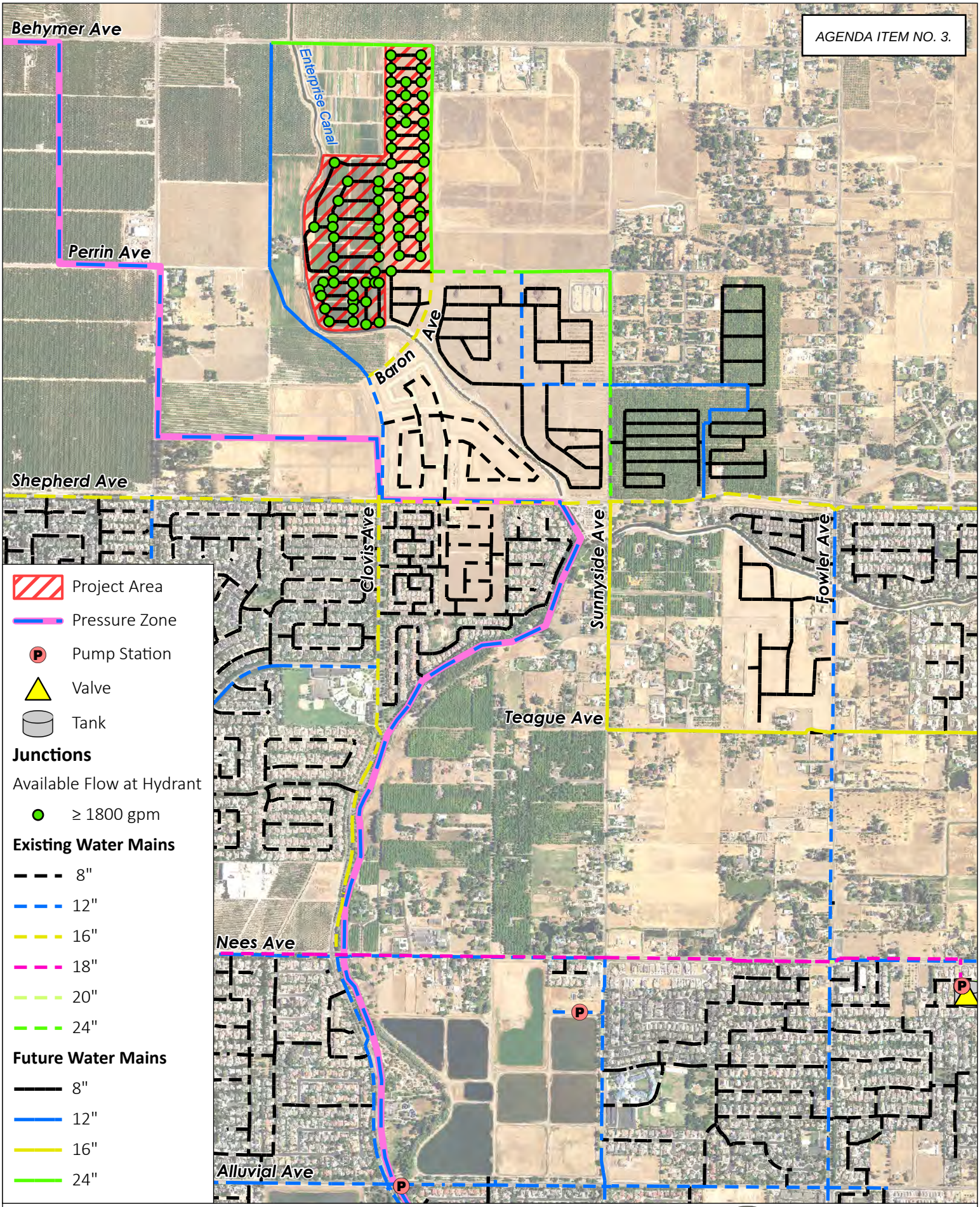


Figure 7: Alternative 3 Maximum Day Demand Plus Fire Flow without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

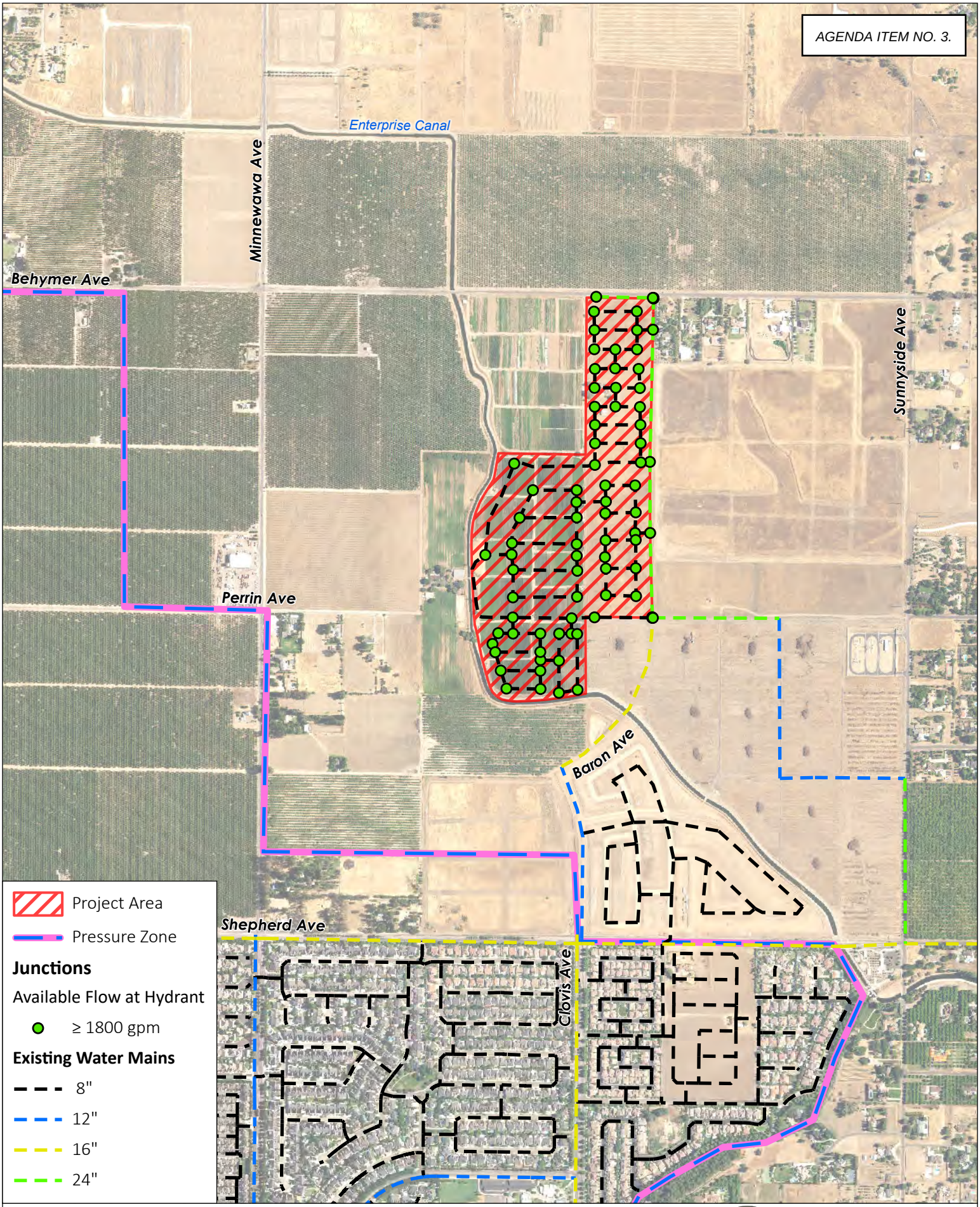


Figure 8: Alternative 4 Maximum Day Demand Plus Fire Flow With Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

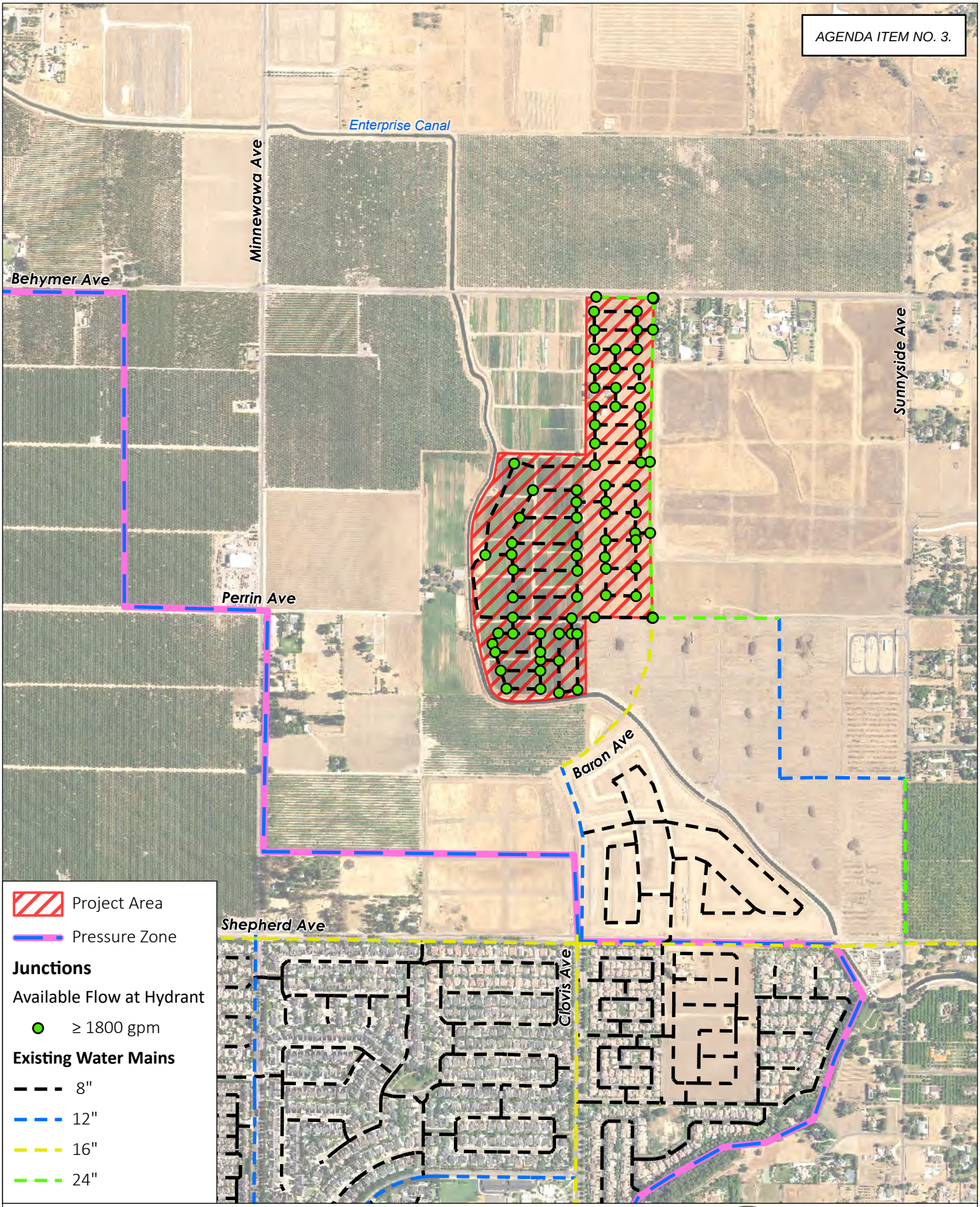


Figure 9: Alternative 4 Maximum Day Demand Plus Fire Flow Without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

APPENDIX C

WATER SUPPLY ASSESSMENT

This page intentionally left blank

City of Clovis

Water Supply Assessment

Tract 6343
Northwest Sphere of Influence Expansion Area

December 2022

Prepared for:
City of Clovis

Prepared by:
Provost & Pritchard Consulting Group
455 W Fir Avenue, Clovis, CA 93611

COPYRIGHT 2022 by PROVOST & PRITCHARD CONSULTING GROUP
ALL RIGHTS RESERVED

Provost & Pritchard Consulting Group expressly reserves its common law copyright and other applicable property rights to this document. This document is not to be reproduced, changed, or copied in any form or manner whatsoever, nor are they to be assigned to a third party without first obtaining the written permission and consent of Provost & Pritchard Consulting Group In the event of unauthorized reuse of the information contained herein by a third party, the third party shall hold the firm of Provost & Pritchard Consulting Group harmless, and shall bear the cost of Provost & Pritchard Consulting Group's legal fees associated with defending and enforcing these rights.

Report Prepared for:

Client Name

City of Clovis
1033 5th Street
Clovis, CA 93612

Contact:

Sean Smith
(559) 324-2363

Report Prepared by:

Provost & Pritchard Consulting Group

Heather Bashian, PE
Brittney Darnell

Contact:

Heather Bashian, PE

(559) 449-2700

Table of Contents

1 Introduction 1-1
1.1 Purpose and Need for the Water Supply Assessment 1-1
1.2 Reliance on a Related Urban Water Management Plan 1-1
1.3 Document Organization 1-1
2 Project Description 2-1
2.1 Project Location and Setting 2-1
2.2 Water Supply and Distribution 2-1
3 Water Demands 3-1
3.1 Project Demands 3-1
3.2 Demands of Other Existing and Planned Development 3-2
4 Overview of Water Supplies 4-1
4.1 Surface Water 4-1
4.1.1 Kings River 4-1
4.1.2 Central Valley Project Water Allocation: Friant Division 4-1
4.1.3 Garfield Water District 4-2
4.1.4 International Water District 4-2
4.2 Supply from Storage 4-2
4.3 Groundwater 4-3
4.4 Recycled Water 4-5
4.5 Exchanges 4-5
4.6 Water Supply Summary 4-6
5 Normal Year Water Operations 5-1
6 Single-Dry and Multiple-Dry Year Water Supplies 6-1
6.1 Water Year Effects on Water Sources 6-1
6.1.1 Kings River Surface Water 6-1
6.1.2 Friant CVP Surface Water 6-1
6.1.3 Supply from Storage 6-2
6.1.4 Groundwater 6-2
6.1.5 Recycled Water 6-2
6.2 Changes in Water Source Reliability Over the Planning Horizon 6-3

6.3 Summary of Single-Dry and Multiple-Dry Year Reliability Over the Planning Horizon 6-3
6.4 Climate-Based Reliability Factors 6-4
7 Operational Reliability 7-1
8 Conclusions 8-1
8.1 Conclusions Including Additional WSAs 8-1
9 References 9-1

List of Figures

Figure 2-1. Location Map 2-2
Figure 2-2. Water Infrastructure at Buildout 2-3
Figure 3-1. Land Use Plan in Project Area 3-3
Figure 4-1. Irrigation and Water Districts 4-4

List of Tables

Table 3-1. Planned Demand Estimates 3-1
Table 3-2. Proposed Demand Estimates 3-1
Table 3-3. Proposed Water Demands in 5-Year Increments 3-2
Table 3-4. Planned Water Demands by Use Type 3-2
Table 4-1. Water Supplies – Normal Year (UWMP Tables 6-12 and 6-13) 4-6
Table 5-1. Comparison of Normal Year Supplies and Demands 5-1
Table 6-1. Dry Year Supply and Demand Comparison in 2030 (UWMP Tables 7-2, 7-3, and 7-4) 6-4
Table 8-1. Summary of Project Water Supplies and Demands including WSAs 8-1

Abbreviations

AF ..... acre-feet
AFY ..... acre-feet per year
City ..... City of Clovis
County ..... Fresno County
CVP ..... Central Valley Project
CWC ..... California Water Code
FID ..... Fresno Irrigation District
GP ..... General Plan
GWD ..... Garfield Water District
IWD ..... International Water District
KRWA ..... Kings River Water Association
MDR ..... Medium Density Residential
MGD ..... million gallons per day
MHDR ..... Medium High Density Residential
NKGSP ..... North Kings Groundwater Sustainability Plan
RWRF ..... Regional Water Reclamation Facility
SOI ..... sphere of influence
SRF ..... Single-Family Residential
SWTP ..... City of Clovis Surface Water Treatment Plant
USBR ..... US Bureau of Reclamation
UWMP ..... City of Clovis Urban Water Management Plan
WDF ..... Water Demand Factors
WMP ..... City of Clovis, Draft Water Master Plan Update, Phase III
WRF ..... City of Clovis Sewage Treatment/Water Reuse Facility
WSA ..... Water Supply Assessment
WSCP ..... Water Shortage Contingency Plan

1 Introduction

1.1 Purpose and Need for the Water Supply Assessment

California Water Code (CWC) §10912(a) requires preparation of a Water Supply Assessment (WSA) meeting the requirements of CWC §10910 et seq for projects within cities and counties that meet one of several water demand triggers, or the equivalent. These triggers include construction of 500 or more residential units, construction of a shopping center or business establishment having 500,000 square feet of floor space, construction of a commercial office building having more than 250,000 square feet, a proposed hotel or motel having more than 500 rooms, or another project having a water demand equivalent to or greater than the 500-unit development.

This WSA evaluates the adequacy of available water supplies for the proposed Tentative Tract Map No. 6343 (Tract 6343), located in the City of Clovis, Fresno County, California. The Project would entail the development of 590 single-family residential lots, which is greater than the "500 residential units" trigger; therefore, a WSA is required. The City of Clovis operates the water system to which the Project proposes to connect. This water system meets the standards for a "Public Water System" as set forth in CWC §10912(c); the City is therefore responsible for preparation of the required WSA in accordance with CWC §10910(b).

This WSA discusses the estimated water demands and water supply for the proposed Project. The Project is located in Fresno County (County), adjacent to the City of Clovis (City) limits; the area will be annexed as part of the Project's progress and the entire Project will be supplied water from the City.

1.2 Reliance on a Related Urban Water Management Plan

If the Project falls within the boundaries of a current Urban Water Management Plan (UWMP) prepared by the water purveyor, CWC §10910(c)(1) requires that the WSA determine whether projected water demand associated with the Project is included as part of that duly adopted UWMP.

The 2020 Clovis UWMP covers the SOI for the City. This Project lies within the area north of Shepherd, west of Sunnyside Avenue, within the City's SOI (Provost & Pritchard Consulting Group, 2021). Thus, in accordance with the CWC, the preparers have relied on information from the UWMP wherever possible in preparing the various elements of this Assessment.

1.3 Document Organization

This WSA is organized as follows:

- *Section 2 describes the Project and its location.*
- *Section 3 describes the Project's potable and non-potable water demands in addition to those of other existing and planned uses, and how these vary from the numbers used in the UWMP.*
- *Section 4 provides an overview of the City's primary water supplies.*

- *Section 5 discusses the adequacy of water supplies during normal years.*
- *Section 6 discusses the adequacy of water supplies during single-dry and multiple-dry years.*
- *Section 7 discusses operational reliability on a daily basis.*
- *Section 8 concludes whether supplies would be adequate during normal, dry-year, and multiple-dry years during a 20-year projection.*
- *Section 9 lists references cited in this WSA.*

2 Project Description

2.1 Project Location and Setting

The City limits currently encompasses 25.9 square miles. The City's Sphere of Influence (SOI) covers 34.9 square miles, while the City's General Plan (GP) encompasses approximately 74.3 square miles. The City's General Plan (Placeworks, 2014) identified three Urban Centers to focus growth, including Loma Vista, the Northwest area, and the Northeast area; this Project lies within the Northwest area. **Figure 2-1** identifies the location of the Project in relation to the surrounding Clovis/Fresno region.

The Project would entail development of 590 single-family residential lots on approximately 71.5 gross acres in the Northwest Village. The Project is a proposed Medium High Density Residential (MHDR) development with associated neighborhood green space. The Project site includes 71.5 gross acres bounded by Perrin Avenue and the Enterprise Canal to the south, Behymer Avenue to the north, the Enterprise Canal to the west, and Baron Avenue to the east. The Project site encompasses two parcels, entirely (APNs 556-040-07 and 556-040-08) as well as a portion of parcel 556-030-14. Located just outside the city limits, the area north of the Project is planned to develop to primarily medium density residential, the area east of the Project is developing to very low and medium density residential, the area directly west of the Project is bounded by the Enterprise Canal but directly west of the canal is planned for park facilities, and the area to the south is mainly medium density residential with small areas of park facilities and general commercial.

The Project area is currently designated, in the City's General Plan, as Medium Density Residential and current land uses are rural residential, open fields, and agricultural fields with miscellaneous field crops.

2.2 Water Supply and Distribution

The Project will receive water supply from the City's water distribution system, which relies on both groundwater and surface water supplies. Built in 2004, the City's Surface Water Treatment Plan (SWTP) has a current treatment capacity of 22.5 million gallons per day (MGD); expansion to 45 MGD is planned. In addition to the supply from the SWTP, the City has more than 30 groundwater wells located throughout the City, with the nearest wells being approximately one and a half miles southeast of the Project. While the City's system is divided into two pressure zones, there are interconnections between the two to balance supply and demands throughout the year in various water demand scenarios.

The Project area is entirely within the water system's Pressure Zone 2. Water will be delivered to the Project via the City's existing and planned distribution system. The water distribution system is shown in full in the Water Master Plan Update, Phase III (WMP) (Provost & Pritchard Consulting Group, 2018), and in detail for this area on **Figure 2-2**. Through other projects in the area being undertaken by others, the master-planned infrastructure is being constructed to the south and east of the Project and is assumed it will be complete prior to the water demands associated with this Project being realized. Additionally, the master-planned distribution mains in Shepherd Avenue, between Clovis and Fowler Avenues, and further south and east towards the SWTP exist.

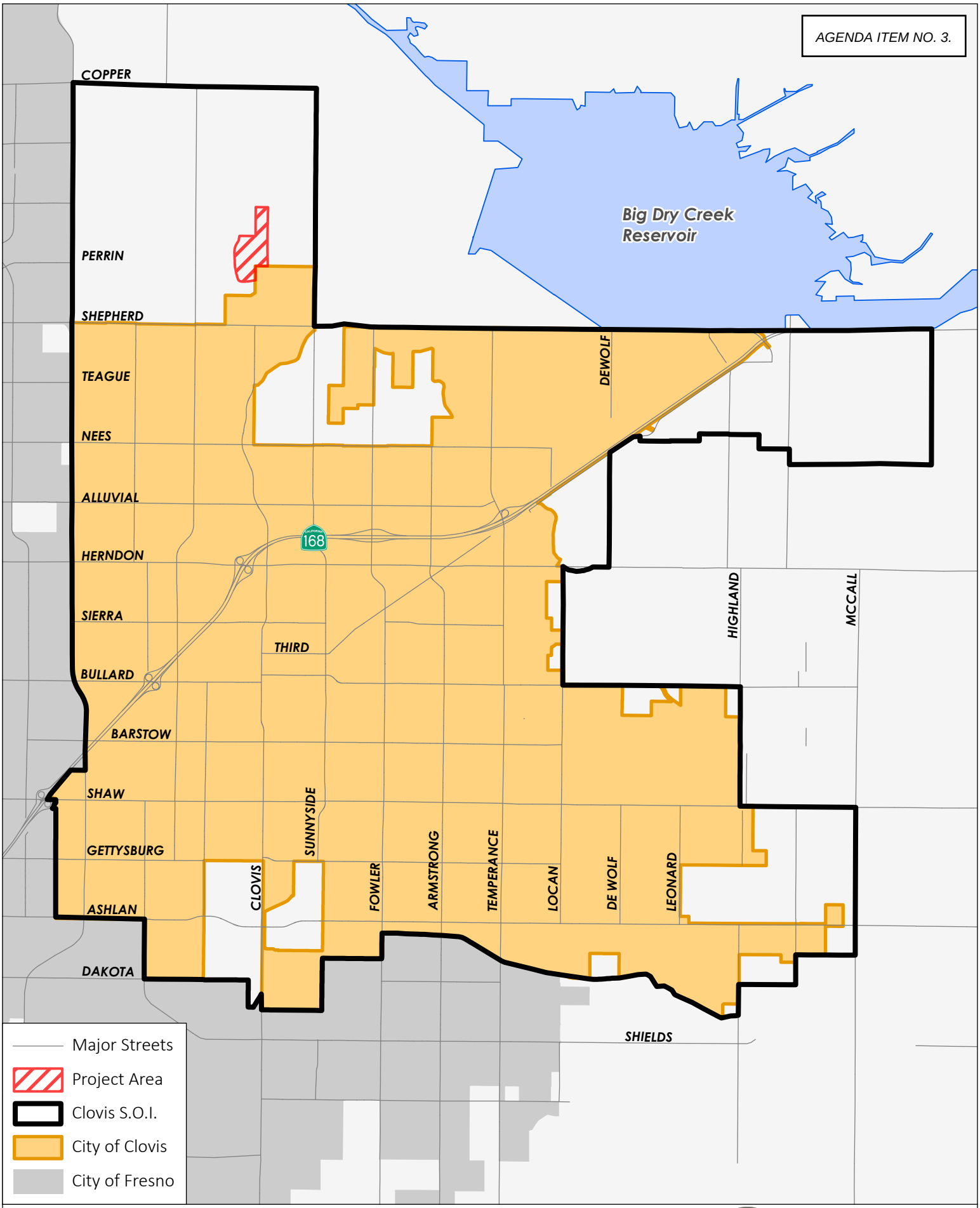


Figure 2-1: Project Location

Water Supply Assessment

PROVOST & PRITCHA

12/12/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

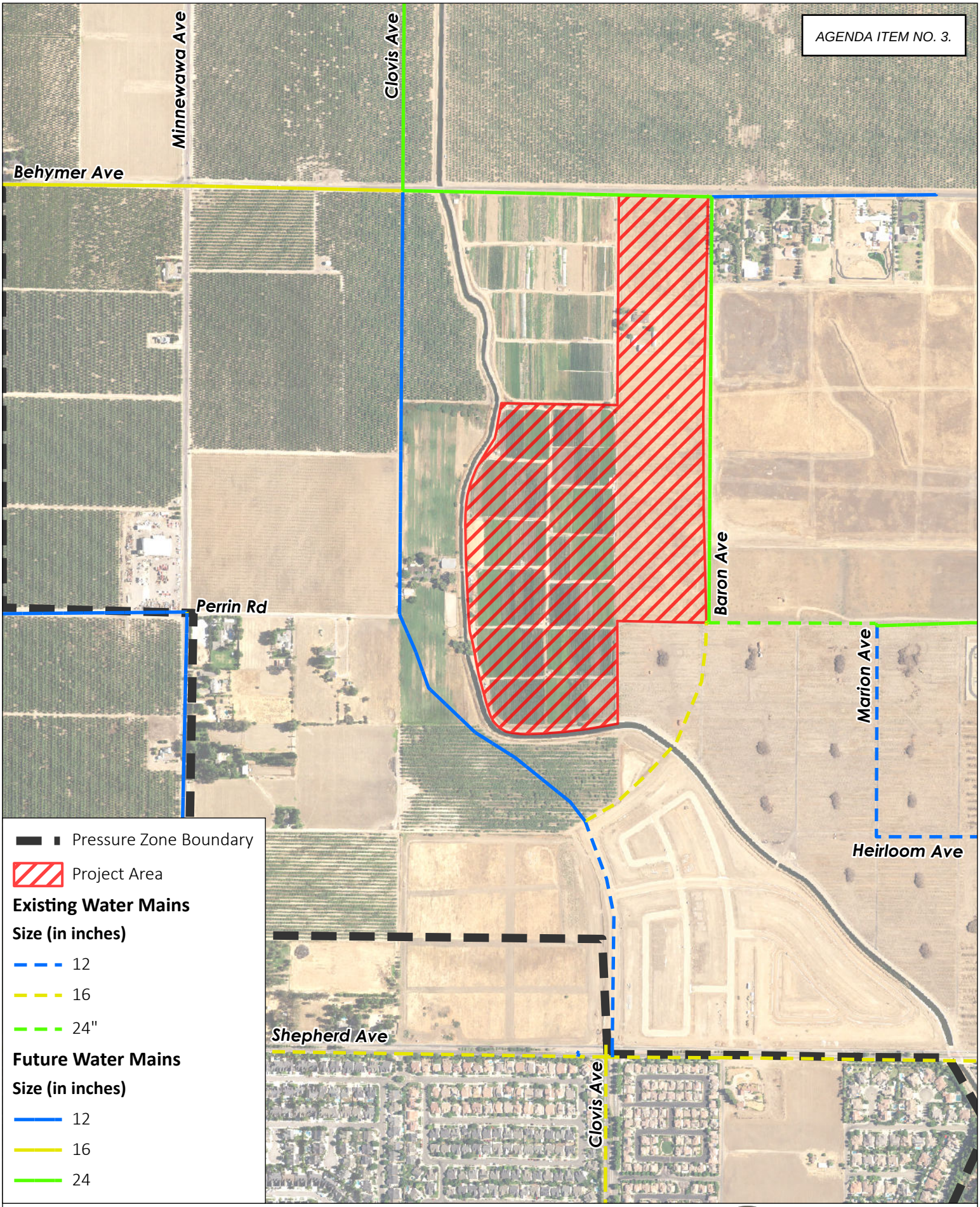


Figure 2-2: Potable Water Infrastructure

Water Supply Assessment

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

3 Water Demands

This section summarizes projected water demands of the Project, assuming full buildout of the Project by 2030. Water demands associated with development of the Project area were included in the UWMP and were based on Land Use-based Water Demand Factors (WDFs) applied to land uses shown in the City's adopted General Plan. Proposed Project water demands have been estimated based on the proposed land uses and the WDFs shown in the adopted WMP. This section compares water demand estimates developed as part of this study with the City's earlier plans.

3.1 Project Demands

Based on the adopted WDFs stated in the WMP and the existing GP land use (shown in **Figure 3-1**) designations, the planned water demands, shown in acre-feet per year (AFY), for the Project area are shown in **Table 3-1**.

Table 3-1. Planned Demand Estimates

Planned Land Use Designation	Unit Factor (AFY/acre)	Acreage	Demand (AFY)
Medium Density Residential	2.2	71.5	157.3
Totals:		**71.5**	**157.3**

The proposed water demand estimates for this Project are summarized in **Table 3-2**, based on the proposed land uses and WDF.

Table 3-2. Proposed Demand Estimates

Proposed Land Use Designation	Unit Factor (AFY/acre)	Acreage	Demand (AFY)
Medium High Density Residential	3.3	71.5	236.0
Total:		**71.5**	**236.0**

While the proposed land use is residential, the intensity of the residential development is greater than the GP land uses; therefore, the proposed water demand estimates are greater than the planned estimates. The increase in total water demand for the Project area is 78.7 AFY. This increase is attributable to the proposed MHDR designation having a higher WDF than that of the originally planned, MDR designation. Despite the increase in demands for the Project area, the proposed increase amounts to 0.46% of the excess supply for year 2030 the City has in a normal year as shown in Table 7-2 of the 2020 UWMP[1].

[1] The excess supply in a normal year in 2030 is shown in the UWMP as 16,113 AFY; the total demand planned for the area is 157.3 AFY while the proposed demand is 236.0 AFY, yielding an increased demand of 78.7 AFY or 0.49% of the excess supply (78.7/16113 = 0.49%).

Project water demands were calculated in 5-year increments, as shown in **Table 3-3**, assuming 25 percent of the development by 2025 and the balance by 2030[2].

Table 3-3. Proposed Water Demands in 5-Year Increments

	2025	2030	Total
Estimated Demand (AFY)	59.0	177.0	236.0

3.2 Demands of Other Existing and Planned Development

The UWMP report the planned demands for similar types of uses proposed with this Project within the City, referred to collectively as Single-Family Residential uses (SFR). These demands are summarized in UWMP Table 4-5, which is reproduced, in part, below.

Table 3-4. Planned Water Demands by Use Type

Use Type	UWMP Projected Demands in 2030 (AFY)	Proposed Project Demands in 2030	
		Project Demands (AFY)	% of UWMP SFR Demands
Single-Family Residential	18,558	236.0	1.3%
Totals	**18,558**	**236.0**	**1.3%**

Comparing the total proposed Project water demands in **Table 3-2** with the total water demand area analyzed in the UWMP and shown in **Table 3-4**, the Project makes up a very small portion of the overall water anticipated to be delivered by the City to similar types of uses; however, it is worth note the additional demand beyond the original planned land use (78.7 AFY) accounts for 0.4% of the SRF projected demands shown in the 2020 UWMP for year 2030.

[2] The anticipated demands timing is an estimate and development of the Project will be determined by the Project Applicant. This WSA does not govern the development timeline.

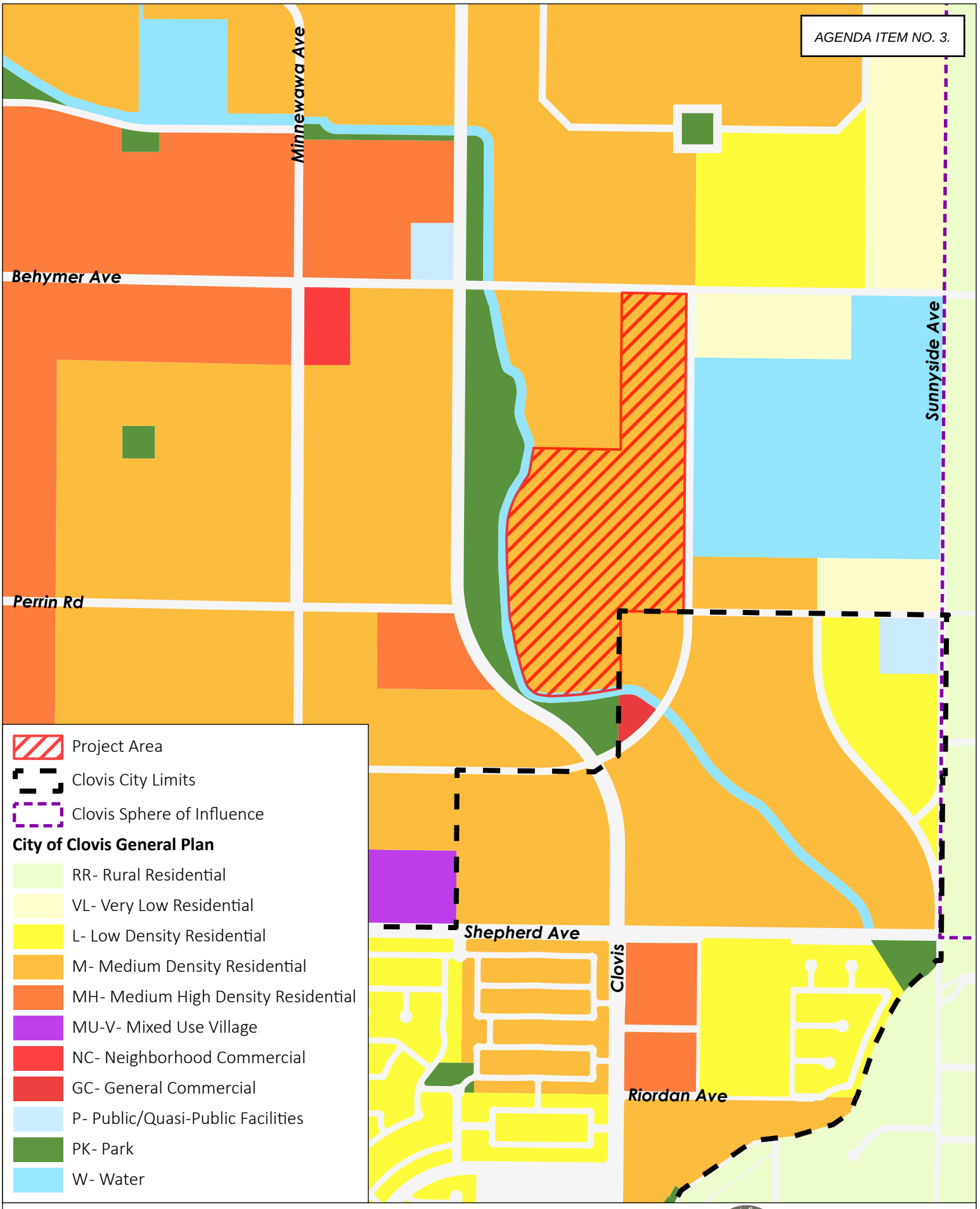


Figure 3-1: Land Use Plan in Project Area

Water Supply Assessment

PROVOST & PRITCHA

12/12/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

4 Overview of Water Supplies

CWC §10910(c)(2) allows reliance on the City's UWMP to determine overall water supply reliability if the Project's planned water demand was included in the UWMP. Although, the proposed Project demand is more than what was included in the calculations for the UWMP, the Project area itself was included at the originally planned land use intensity.

§10910(d) requires that a WSA identify any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed Project, including any such existing entitlements, rights, or contracts held by the public water system or city or county preparing the WSA. These descriptions appear in detail in Chapter 6 of the UWMP and are summarized below.

4.1 Surface Water

The City's surface water supply is provided through agreements with Fresno Irrigation District (FID), which allows the City to receive a share of FID's Kings River and Friant Central Valley Project (CVP) entitlements. Garfield Water District (GWD) and International Water District (IWD) are located within the City's General Plan boundaries. As the districts' service areas are urbanized over time, surface supplies available to the two districts will be added to the City's surface water supply. As those supplies are added to the City's water supply portfolio, they will be available throughout the City's service area as part of the general water supply. Currently, all surface water available to the City comes from the FID contract. The boundaries of each of the districts are shown on **Figure 4-1**.

4.1.1 Kings River

FID obtains much of its surface water from the Kings River. FID is a member of the Kings River Water Association, which holds water rights licenses for all the Kings River and storage rights licenses on Kings River reservoirs. FID is entitled to water based upon a prorated monthly schedule determined by the natural flow of the Kings River as it would occur without reservoir storage above the historic Piedra gauging station. FID is entitled to water from the Kings River at all flows, but the percentage is higher at relatively low Kings River flows. If the snowmelt is slow, the District receives a greater entitlement. FID's average gross annual entitlement is 452,541 AF. Within the last fifty years, the smallest entitlement received was 158,109 AF, which occurred in 2015.

The City's allocation from the Kings River is proportional to the total acreage of the City's included area to the total FID area receiving water; the total amounts available to the City are discussed in greater detail in Section 6.1.

4.1.2 Central Valley Project Water Allocation: Friant Division

The water obtained from the CVP comes from the diversion and storage of water from the San Joaquin River behind Friant Dam. The total available water on the San Joaquin River has been estimated at 2,200,000 acre-feet (AF). Of that, 800,000 AF have been designated as Class I supply (Bureau of Reclamation, 2005). Class I supply is considered to be dependable in most years with shortages only in

very dry years. Class II water is in excess of Class I and is therefore much less dependable. FID has a contract with the United States Bureau of Reclamation (USBR) for 75,000 AF of Class II water from this source (Bureau of Reclamation, 2005). The agreement between the City and FID requires the District to make available to the City the proportional share of all surface water available to the District although it does not allow the City to directly receive FID's CVP supplies. Therefore, FID is required to make a like amount of Kings River (or any other surface) water available to the City for its proportional share of Class II CVP supplies. FID's Class II contract has received an average 13,577 AFY with the actual number ranging from zero to the full 75,000 AF depending upon the nature of each water year over that period. **Table 4-1** lists the projected surface water volume through 2040.

4.1.3 Garfield Water District

GWD is located north of the City with a portion of the district in the City's SOI. The GWD holds a Class 1 CVP contract for 3,500 AFY. With half of GWD within the City's SOI, an estimated 1,750 AFY is expected to be added to the City's supply upon development. As noted in the UWMP, the first portion of GWD supplies is not anticipated to be available to the City until 2025, with the total 1,750 AFY not accounted for in the supply totals until 2040.

4.1.4 International Water District

IWD is located east of the City's SOI within the general plan's boundary. The IWD holds a Class 1 CVP contract for 1,200 AFY. The City's General Plan designates a portion of the District's area as industrial and residential use. At build-out it is estimated that the entire 1,200 AFY supply will be added to the City's supply. As noted in the UWMP, the first portion of GWD supplies is not anticipated to be available to the City until 2030, with the total 1,200 AFY not accounted for in the supply totals until 2040.

4.2 Supply from Storage

Since 2004, the City has been storing water in the aquifer to create a stable source of supply over the years. The City has been working with FID to recharge surface water, using the City's contracted shares of capacity in FID's Waldron Banking Facility and Boswell Groundwater Banking Facility, to build up credit in those facilities which allows for annual water withdrawals, on an as-needed or as-requested basis. The surface water banked includes portions of FID's Kings and CVP supplies and may in the future also include other surface water supplies that FID is able to secure on the spot market. Recharged water is purchased under separate agreements with FID and is not included in the surface water totals in the previous section, so this is truly a separate and additional water supply. This process is fully explained in the UWMP.

Two banking facilities, the Waldron Banking Facilities (Waldron) and Boswell Groundwater Banking Facility (Boswell), have been constructed in central Fresno County. The City entered into an agreement with the FID to participate in the financing of the construction of a dedicated water banking facility called the Waldron Banking Facilities. The City is entitled to receive up to ninety percent (9,000 AF) of the annual yield. The City and FID have entered into a similar agreement regarding the Boswell Groundwater Banking Facility whereby the City will have access up to 4,500 AFY of surface water. The

recharged water will be "banked" for future recovery during dry periods or to accommodate planned growth.

The City has created a recharge plan accounting for historic variations in surface water supplies that will allow it to withdraw an annual 13,500 AF, the maximum withdrawal allowed under the City's agreements with FID. This is considered a firm supply. The 13,500 AF maximum annual withdrawal is built into the water supply projections in the UWMP for each year over the planning horizon.

4.3 Groundwater

The City is located within the Kings Groundwater sub-basin, a part of the Tulare Lake Hydrogeologic Basin as described in the Department of Water Resources Bulletin 118 (Department of Water Resources, 2003). The groundwater basin is in overdraft and has been for many years. However, it has not been adjudicated.

Chapter 6 of the UWMP discusses a sustainable groundwater yield for the service area and concludes the sustainable yield to be 9,400 AFY, as discussed in greater detail in the WMP. While the North Kings Groundwater Sustainability Plan (NKGSP) has been written and adopted, it does not yet include a firmer approximation of sustainable yield, although development of one is anticipated. The sustainable yield from the UWMP and WMP has been used for this assessment.

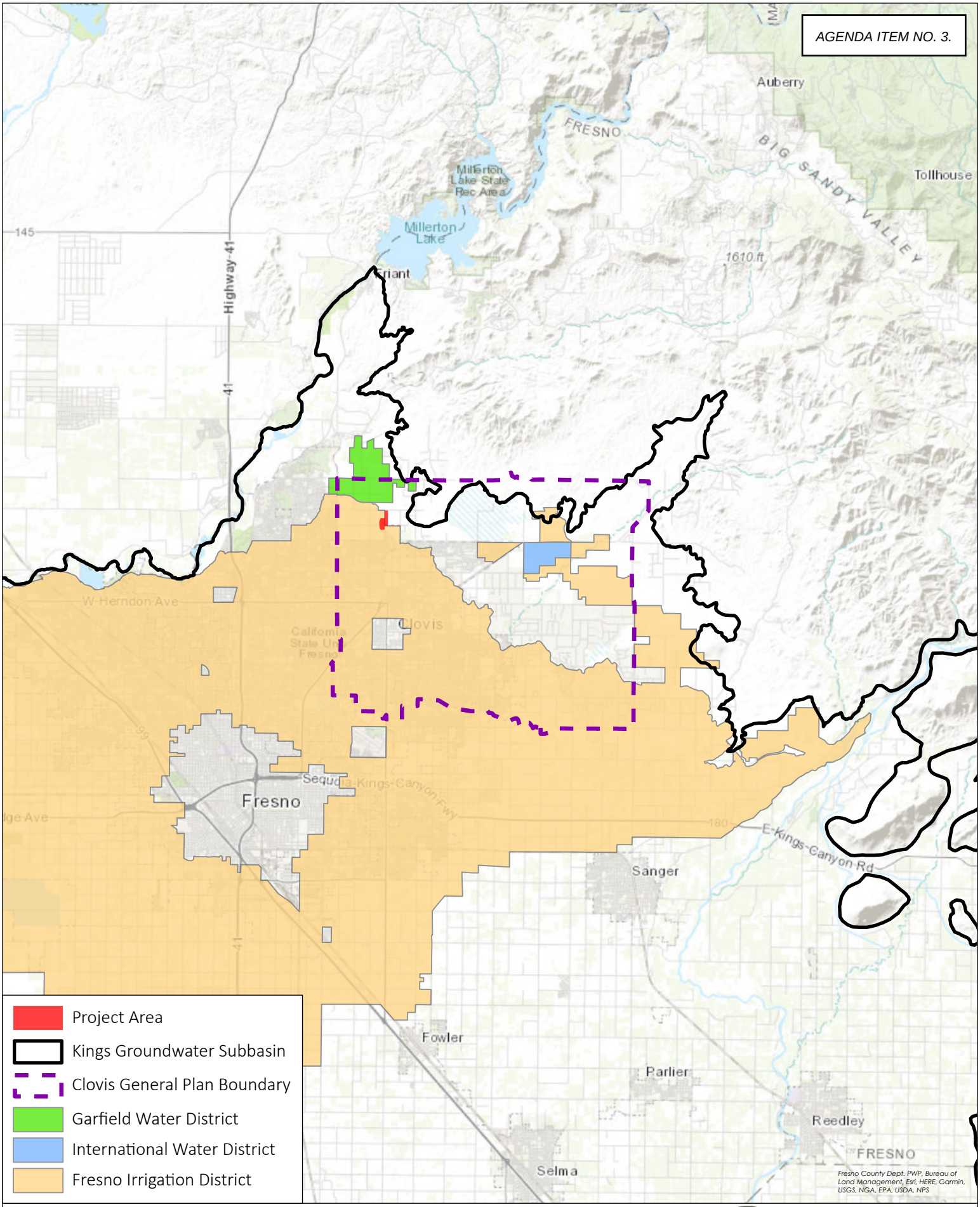


Figure 4-2: Irrigation and Water Districts

Water Supply Assessment

PROVOST & PRITCHA

12/12/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

4.4 Recycled Water

Most of the City's wastewater flow is treated at the Regional Water Reclamation Facility (RWRF), located southwest of the City of Fresno on Jensen Avenue. In 2009, the City of Clovis completed a new Water Reclamation Facility (WRF). In 2020, the WRF produced approximately 2,496 AFY. Of that total, 28 percent was recycled for mostly landscape and agricultural irrigation, with the remainder being discharged to FID's Fancher Creek for agricultural irrigation.

Ultimately the WRF will be expanded to be able to treat 8.4 MGD, or 9,400 AF per year, and will make a substantial contribution to the City's overall water resources. According to the 2020 UWMP, recycled water is used for irrigation of public and private landscape within the service area. Areas receiving or planned to receive recycled water include the Freeway 168 corridor between Shepherd and Sierra Avenues, the existing Clovis Community Medical Center campus, and multiple City parks and landscape areas.

Landscape irrigation will continue to be the main use of recycled water in the future. All public landscape areas within three-quarters of a mile of the distribution system are considered potential recycled water use areas. Clovis Unified School District is evaluating the use of recycled water for its landscape areas. Caltrans has expanded their use of recycled water along State Route 168 from Armstrong Avenue west to Sierra Avenue. Concurrent with the Project's development, the City will expand its use of recycled water and broaden its range of beneficial uses to potentially include irrigating the public landscape space to be developed with the Project.

To affect that increase in use, the City now requires all new development of public landscape near recycled water transmission lines to use recycled water. Additional actions include extending the recycled water distribution system to discharge at groundwater recharge facilities and reducing the cost of recycled water. The UWMP indicates planned use of recycled water supply will be 9,400 AFY by 2040 (UWMP Table 6-13). With a planned[3] recycled water transmission main in Shepherd Avenue, it is possible this Project may use recycled water for landscape irrigation, but the City will make final determination of that at a later date.

4.5 Exchanges

Water exchanges, transfers, and water banking allow purveyors to manage demand and supply variability by ensuring water will be available for the near future. The majority of the City's wastewater is treated at the RWRF. Under an agreement with FID, the City of Fresno receives 0.92 AF of Kings River surface water in exchange for each two AF of reclaimed water produced by the RWRF (46 percent exchange). Clovis is in discussions with the City of Fresno and FID on documenting its pro-rata share of RWRF effluent and the most efficient recover and beneficial use of that effluent. This will require a new effluent exchange agreement with FID, and potentially the City Fresno, to appropriately allocate Clovis' pro-rata share of the treated water. This water is limited by agreement to being used for groundwater recharge activities.

[3] As noted in the City's 2018 Recycled Water Master Plan

4.6 Water Supply Summary

The five sources discussed above make up the City's water resources. These are tabulated overall for 2025 and for each subsequent 5-year period through 2040 in **Table 4-1**.

The City's overall water resources are projected to increase from 50,739 AF per year in 2025 to 74,650 AF per year in 2040. Nearly all this increase will come from increasing surface water resources from 18,039 AF per year in 2020 to 39,400 AF per year in 2040. The mix of water supplies the City plans to use to meet these demands is changing over time and, while the surface water supplies will be the primary source, a mixture of groundwater and supply from storage will be used to meet demands.

Table 4-1. Water Supplies – Normal Year (UWMP Tables 6-12 and 6-13)

Water Supply	Projected Water Supply (AF)			
	2025	2030	2035	2040
Groundwater [1]	11,429	10,753	10,076	9,400
Surface Water [2]	22,160	27,584	32,508	39,400
Supply from Storage (Waldron and Boswell facilities)	13,500	13,500	13,500	13,500
Recycled Water	3,100	5,500	6,300	9,400
Transfers (GWD and IWD)	550	1,600	2,650	2,950
Total	**50,739**	**58,937**	**65,034**	**74,650**

Notes:

[1] Reasonably available volume shows a steady reduction in reliance on groundwater supply, as planned, to the sustainable yield volume in 2040; discussed in greater detail in the UWMP.

[2] Surface water quantities shown in greater detail in the UWMP.

5 Normal Year Water Operations

This section evaluates the ability of the City to meet the overall water demands during normal water years. A normal year is a year, or averaged range of years, that most closely represents the average water supply available to the City. In this case, the normal year reflects the overall water supply summary discussed in Section 4.

This Chapter relies on information taken from Sections 6 and 7 of the UWMP. **Table 5-1** compares the City's water demands and compares them with the normal year water supplies (see **Table 4-1**) for the 5-year increments the Project is anticipated to be constructed, and through 2040, as shown in the UWMP. As shown, total supplies would exceed total demands. Adequate supplies are available to serve the City and its water customers in normal rainfall years such as those discussed in this section. The excess water supply is more than adequate to meet the estimated Project water demands.

Table 5-1. Comparison of Normal Year Supplies and Demands

Condition	Water Supply (AFY)			
	2025	2030	2035	2040
Water Demand	39,737	42,824	46,422	52,598
Water Supply	50,739	58,937	65,034	74,650
Excess/Shortage	**11,002**	**16,113**	**18,612**	**22,052**

6 Single-Dry and Multiple-Dry Year Water Supplies

This section evaluates the availability of City water supplies during single-dry and multiple-dry water years, based on Project buildout in 2030. Numerous factors will work to change the relative quantities of water the City receives from its several water sources. Since each of these has a different reliability in dry years, the overall water supply reliability will change over time. The following sections discuss how this will occur.

During a single-dry year, surface water allotments are anticipated to be reduced by as much as 66 percent for Kings River surface water supplies, and CVP Class II supplies are eliminated completely in dry years. In the future, as the City becomes more reliant on surface water supplies, the impact of surface water reductions in dry years will be more significant.

A multiple-dry year period represents the lowest average supply available to the Project for a consecutive five-year period. This analysis is referred to as a "multi-dry" condition in the UWMP. The WSA analysis is based on the five consecutive driest years of record for the Project's surface water supplies, which were water years 2011/12 through 2015/16.

6.1 Water Year Effects on Water Sources

6.1.1 Kings River Surface Water

Both the single-dry and multiple-dry analyses are most affected by the variations in Kings River entitlement in dry years. FID's entitlement does not vary directly in proportion to overall annual runoff; rather it favors FID versus all the other Kings River diverters. When river flows are low due to slow runoff, low annual precipitation or both, FID's proportional share of the daily river flow increases.

The effect of this is that FID's entitlement, as a percentage of its average entitlement, is higher than the overall water year percentage flow, for virtually any below-average water year. As noted in the UWMP, the anticipated share of Kings River water is shown as 32,100 AFY (UWMP Table 6-4) in 2040 for an average water year. As discussed in the UWMP, the City has recently executed a contract with FID for development of a new firm water supply starting at 1,000 AFY in 2020 and increasing to a maximum of 7,000 AFY by 2045 and thereafter. This new supply will not have the variability of the existing supply based on water year type.

6.1.2 Friant CVP Surface Water

Over the period of 1986 through 2016, the average Class II allocation has been 38 percent of contracted amount. However, Class II supplies are particularly subject to the water year type. However, these supplies are relatively small and would not have significant impact on the total supply.

While Class I entitlements do not currently affect the City's FID supplies, they will affect the future-year GWD and IWD entitlements. Class I allocations in the five multiple-dry years were 0 percent of the contracted amount for all five years.

6.1.3 Supply from Storage

The contract for the Waldron facility allows annual withdrawals of up to approximately 9,000 AFY, while the Boswell Facility allows up to 4,500 AFY. According to the UWMP, the combined withdrawal limit from the two facilities is 13,500 AFY. In any year where surface water deliveries are substantially limited, the City would want to use these resources to the limit.

A related matter is how contributions are made to supply storage. Whereas in normal years the City is making deposits to both facilities, in a drier year those contributions would be reduced or halted since the surface supplies necessary for the deposits would not be available. Since the deposits come from surface water resources not counted in the City's water balance, being acquired under separate FID agreements, the curtailment of deposits does not reduce the City's water demand.

6.1.4 Groundwater

As of the preparation of the 2020 UWMP, the City of Clovis obtains groundwater from more than 30 wells, located throughout the service area. The total well production is estimated at 37,290 gallons per minute (gpm).

According to the UWMP, the City aims to reduce its direct groundwater consumption whenever possible. Most the City's water demands will be met by a combination of surface water and supplies from storage, in water years when those two resources are sufficient to meet demands. In drier years, when surface water supplies are limited, the City will pump groundwater, potentially beyond the 9,400 AFY accounted for in a normal year, to make up the shortfall but not to an unsustainable level as discussed in the NKGSP. The City will also recharge surface waters when available to allow for additional groundwater pumping when needed.

Planning to make that objective possible is very important, as Chapter 6 of the UWMP states that the sustainable groundwater supply in the City service area is 9,400 AF per year, for normal, dry, and multi-dry years. For the time being, there is no restriction against pumping groundwater above the sustainable aquifer yield; however, the NKGSP indicates the City must sustainably use groundwater.

This WSA uses 9,400 AF per year as the sustainable groundwater pumping amount, as stated in the UWMP. Due to the very large size of the aquifer underlying the City, available groundwater is not quickly affected by the type of water year. Anticipating a mix of wet and dry years similar to what has been historically seen, this WSA does not reduce available groundwater in dry or multiple-dry years; however, the City will be prioritizing use of other supplies over groundwater when possible.

6.1.5 Recycled Water

Recycled water production, being tied directly to indoor water use, does not vary significantly with the water year type, and is not adjusted from normal for this analysis.

6.2 Changes in Water Source Reliability Over the Planning Horizon

In 2020, surface water made up 58 percent of the City's direct water supply. In 2030, the surface water supply is planned to be 53 percent of the total while the supply from storage will have increased to 18 percent in a normal year. Groundwater will remain an important component of the water supply in the near future.

This means the City's reliance on surface water supplies, either directly used or pumped from subsurface storage, will have increased to 71 percent of the total. While there is a margin of normal year supply available over planned demand over the entire planning horizon, some provision may have to be made for additional reliable storage to account for such a large portion of surface water being subject to water year variability. See the reliability analysis in Section 6.3 following.

6.3 Summary of Single-Dry and Multiple-Dry Year Reliability Over the Planning Horizon

Supply for dry years would be drawn from a combination of Kings River surface water, supply from storage, groundwater, and recycled water. As shown in the UWMP, it is anticipated that surface water supplies from the FID Firm Water Agreement would still be available during drought years. Other firm water supply sources are groundwater, banked water, and recycled water, all of which are considered resilient against drought compared to surface water supplies. Groundwater banking activities would decrease to accommodate the decreased surface water supplies while still being able to use previously banked groundwater supplies from the Waldron and Boswell facilities. Project demand was assumed to be constant across all water years.

The supplies that would be available during single-dry and multiple-dry years in 2030 (at assumed Project buildout) are summarized in **Table 6-1**. As shown, adequate supplies would be available to supply the City and along with the estimated Project demand of 236 AFY, under all studied conditions. Further, the excess demand associated with the Project (78.7 AFY), over the originally planned land use, accounts for 10.3 percent of the excess supply without conservation and 1.3 percent of excess supply with conservation in the most critical year analyzed – the Single Dry Year. The City has a Water Shortage Contingency Plan (WSCP) (Provost & Pritchard Consulting Group 2021) in place that could be partially or fully implemented if needed or mandated. The 'demand with conservation' values are reduced to reflect implementation of various stages of the WSCP, as discussed in the UWMP.

Table 6-1. Dry Year Supply and Demand Comparison in 2030 (UWMP Tables 7-2, 7-3, and 7-4)

Scenario	Single-Dry Year [1]	Multiple-Dry Year [2]				
		Year 1	Year 2	Year 3	Year 4	Year 5
Baseline demand	42,824	42,824	42,824	42,824	42,824	42,824
Demand with Conservation as shown in UWMP	37,359	39,422	36,962	33,969	30,474	40,757
Total Supply	43,587	54,607	52,576	48,310	43,586	57,992
Excess/<Deficit> in Supply	**763**	**11,783**	**9,752**	**5,486**	**762**	**15,168**
Excess/<Deficit> in Supply with Conservation	**6,228**	**15,185**	**15,614**	**14,341**	**13,112**	**17,235**

Note: Refer to the 2020 UWMP for details on how these values were calculated.

6.4 Climate-Based Reliability Factors

This WSA defers to the UWMP for consideration of the overall effects of climate change upon supply reliability. Climate change has been considered in the preparation of the UWMP.

7 Operational Reliability

The City's surface water entitlement does not accrue all at once during a given water year. Rather, the Kings River entitlement accrues daily throughout the year based on actual river runoff and the Kings River Water Association (KRWA) entitlement schedule. The daily nature of the Kings River supply is especially important early in the water year, which begins October 1. The very low river flows in October and November mean that supply is low, and the City must rely on other water supplies during those months. The relatively large supplies available from storage help mitigate the seasonal nature of the surface water supply, and these are further backed up by groundwater supplies equivalent to almost half the City's total annual demand.

The City has not had any issue with temporary water shortages to date. The City's WMP and UWMP indicates a need to increase their surface water and groundwater supplies to meet future demands and provides detail on how much of each supply is needed compared to the existing supplies. The WMP also includes a Capital Improvements Program identifying capital projects that are necessary to acquire and facilitate the movement of current and future water supplies throughout the City's system in a reliable manner. The City's adherence to their planning documents and consistent development of these water supplies and infrastructure is critical for the City's continued growth and development and will provide operational reliability into the future.

8 Conclusions

As summarized in **Table 8-1**, the City has adequate supplies to meet the needs of all the City's water customers including the Project, in normal water years, over the 20-year planning horizon.

In the buildout year, if demand is as projected, the City will have sufficient water to meet dry year demands of all dry year event types. Conservation measures, detailed in the Water Shortage Contingency Plan, have been developed that would mitigate possible shortfalls by reducing demand approximately 15 percent. Evidence from the 2013 to 2015 drought suggests that those results, and more, are achievable. Additionally, as the City has surplus water supplies in normal years, short-term additional groundwater extraction in the single-dry and multiple-dry years is also planned as part of their water portfolio.

As discussed in Section 7, the City has plans to continue to acquire water supplies and construct infrastructure to supply current and future water users. Therefore, we conclude the City of Clovis has adequate water supplies to meet the needs of the City including additional demands associated with this Project in normal, dry, and multi-dry years given the previously discussed potential demand reductions and supply augmentations.

8.1 Conclusions Including Additional WSAs

Since the 2020 UWMP was adopted, three WSAs have been prepared for the City, including this one. It is important to understand the cumulative impact of the additional demands associated with WSAs over and beyond the demands analyzed in the 2020 UWMP.

Table 8-1. Summary of Project Water Supplies and Demands including WSAs

2020 UWMP Supply and Demand Comparison Results	Normal Year (2030)	Single-Dry Year	Multiple-Dry Year				
			Year 1	Year 2	Year 3	Year 4	Year 5
Excess/<Deficit> in Supply	16,113	763	11,783	9,752	5,486	763	15,168
Excess/<Deficit> in Supply with Conservation	--	6,228	15,185	15,614	14,341	13,112	17,235
Additional Demands Associated with WSAs prepared since 2020 UWMP							
Home Place Master Plan (Approved March 2021)	No Additional Demands Associated with Home Place Master Plan WSA						
Tract 6205 SOI Expansion (Estimated Approval 2022)	256	256	256	256	256	256	256
Tract 6343 (Estimated Approval 2022)	79	79	79	79	79	79	79
Excess/<Deficit> in Supply including Additional Demands from WSAs	**15,779**	**429**	**11,449**	**9,418**	**5,152**	**428**	**14,834**
Excess/<Deficit> in Supply with Conservation including Additional Demands from WSAs	**--**	**5,944**	**14,901**	**15,330**	**14,057**	**12,828**	**16,950**

The demands in **Table 8-1** include those demands noted in the UWMP, the additional demands associated with the Project evaluated in this WSA (78.7 AFY), as discussed in Section 2.2, and the additional demands discussed in the previously prepared WSAs. Similarly, the noted Excess/Deficit reflects the difference between these summated demands and the total supply noted in the UWMP. This approach accounts for the additional demands associated with the proposed land use type above the demands associated with the originally planned land use type. There is still an excess of supply in all conditions, even with the additional demands.

As noted above, additional groundwater supplies may not be necessary in the critical year or multiple year drought depending on operational decisions regarding conservation; however, the City's UWMP notes additional groundwater supplies would be available on a short-term basis during a drought condition.

9 References

Provost & Pritchard Consulting Group (2021). *City of Clovis, 2020 Urban Water Management Plan Update.* Clovis.

Placeworks. (2014). *General Plan, City of Clovis.* Clovis.

Department of Water Resources. (2003). *Bulletin 118 - California's Groundwater.* Sacramento.

Provost & Pritchard Consulting Group. (2018). *City of Clovis, Water Master Plan Update, Phase III.* Clovis.

Provost & Pritchard Consulting Group (2021). *City of Clovis 2021 Water Shortage Contingency Plan*. Clovis.

PUBLIC REVIEW DRAFT

ENVIRONMENTAL IMPACT REPORT

TRACT MAP 6343

CLOVIS, CALIFORNIA

LSA

January 2024

Attachment 11

This page intentionally left blank

Notice of Availability
Tract Map 6343
Draft Environmental Impact Report

DATE: January 19, 2024

TO: Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

SUBJECT: Notice of Availability of a Draft Environmental Impact Report for Tract Map 6343

LEAD AGENCY:
City of Clovis
Lily Cha-Haydostian, MPA | Senior Planner
City of Clovis | Planning Division
1033 Fifth Street
Clovis, CA 93612
559.324.2335
lilyc@ci.clovis.ca.us

COMMENT PERIOD: January 19, 2024 to March 4, 2024

Notice is hereby given that the City of Clovis (City), as the Lead Agency, has completed the Draft Environmental Impact Report (EIR) for Tract Map 6343, which is being distributed for public review pursuant to the California Environmental Quality Act (CEQA) and the California Public Resources Code.

The City has sent a copy of this Draft EIR to the State Clearinghouse and to those who requested a copy by responding to the Notice of Preparation (NOP). The City has also posted a copy of this Notice of Availability at Clovis City Hall and posted in The Business Jourrnal.

PROJECT LOCATION

The Tract Map 6343 Project (Project) site is located directly north of the City of Clovis limit line at the southwest corner of the East Behymer Avenue and North Sunnyside Avenue intersection. The Project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The Project site is in the northwest quadrant of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian (MDBM).

PROJECT DESCRIPTION

The proposed Tract Map 6343 would consist of the annexation of 246 acres from Fresno County to the City of Clovis, and the development of 590 residential lots within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces would be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. Associated entitlements include Annexation to the City of Clovis and a Planned Development Permit, General Plan Amendment, Prezone, and Tract Map approval to allow for 590 single-family residences. To facilitate the future development of the subject property, the proposed project will also require dedications and/or acquisitions for public street rights-of-way and utility easements, as well as the construction of public facilities and infrastructure. A detailed project description is provided in the Draft EIR.

SIGNIFICANT ENVIRONMENTAL EFFECTS

The Draft EIR has identified the following environmental issue areas as having significant and unavoidable environmental impacts from implementation of the project: Greenhouse Gas Emissions, Transportation and Cumulative Impacts. All other environmental issues were determined to have no impact, less than significant impacts, or less than significant impacts with mitigation measures incorporated into the Project.

Public Review Period

A 45-day public review period for the Draft EIR will commence on January 19, 2024 and end on March 4, 2024. Any written comments on the Draft EIR must be received at the above address within the public review period. Copies of the Draft EIR are available for review at the Attn: Lily Cha-Haydostian, MPA, Senior Planner at the City of Clovis, Planning Division, 1033 Fifth Street, Clovis, CA 93612.The Draft EIR also may be reviewed at the City of Clovis' web site https://cityofclovis.com/planning-and-development/ceqa/. If we do not receive a response from your agency or organization, we will presume that your agency or organization has no response to make.

PUBLIC REVIEW DRAFT

ENVIRONMENTAL IMPACT REPORT

TRACT MAP 6343

CLOVIS, CALIFORNIA

Submitted to:

City of Clovis
Planning Division
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
2565 Alluvial Avenue, Suite 172
Clovis, California 93611
(559) 490-1210

Project No. CIT2201

LSA

January 2024

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS i
FIGURES AND TABLES iii
1.0 EXECUTIVE SUMMARY 1-1
1.1 PURPOSE 1-1
1.2 PROJECT SUMMARY 1-1
1.3 AREAS OF CONTROVERSY 1-4
1.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES 1-5
1.5 EXECUTIVE SUMMARY MATRIX 1-7
2.0 INTRODUCTION 2-1
2.1 PURPOSE OF THIS EIR 2-1
2.2 ENVIRONMENTAL REVIEW PROCESS 2-1
2.3 INTENDED USES OF THIS EIR 2-2
2.4 PROPOSED PROJECT 2-3
2.5 EIR SCOPE 2-3
2.6 REPORT ORGANIZATION 2-4
2.7 PUBLIC PARTICIPATION 2-5
3.0 PROJECT DESCRIPTION 3-1
3.1 PROJECT AREA LOCATION AND SETTING 3-1
3.2 PROJECT OBJECTIVES 3-9
3.3 PROPOSED PROJECT 3-9
3.4 DISCRETIONARY ACTIONS AND USES OF THIS EIR 3-23
4.0 EVALUATION OF ENVIRONMENTAL IMPACTS 4-1
4.1 AGRICULTURAL RESOURCES 4.1-1
4.2 AIR QUALITY 4.2-1
4.3 GREENHOUSE GAS EMISSIONS 4.3-1
4.4 NOISE 4.4-1
4.5 TRANSPORTATION 4.5-1
5.0 ALTERNATIVES 5-1
5.1 SELECTION OF ALTERNATIVES 5-1
5.2 PROPOSED PROJECT 5-2
5.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL 5-4
5.4 ALTERNATIVE 1: NO PROJECT ALTERNATIVE 5-4
5.5 ALTERNATIVE 2: REDUCED PROJECT ALTERNATIVE 5-9
5.6 ALTERNATIVE 3: INCREASED PHASE DENSITY ALTERNATIVE 5-14
5.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE 5-19
6.0 CEQA-REQUIRED ASSESSMENT CONCLUSIONS 6-1
6.1 GROWTH INDUCEMENT 6-1
6.2 SIGNIFICANT IRREVERSIBLE CHANGES 6-2
6.3 SIGNIFICANT UNAVOIDABLE IMPACTS 6-4

7.0 REPORT PREPARATION 7-1

7.1 REPORT PREPARERS 7-1

8.0 REFERENCES 8-1

APPENDICES

A: NOTICE OF PREPARATION AND INITIAL STUDY
B: PUBLIC COMMENTS ON THE NOP
C: LESA MODEL
D: CALEEMOD OUTPUT SHEETS
E: HEALTH RISK ASSESSMENT
F: NOISE IMPACT ANALYSIS MEMORANDUM
G: TRAFFIC IMPACT ANALYSIS

FIGURES AND TABLES

FIGURES

Figure 3-1: Regional and Local Context 3-3
Figure 3-2: Aerial Photograph of the Project Site and Surrounding Land Uses 3-7
Figure 3-3: General Site Plan 3-11
Figure 3-4: Site Plan – South 3-15
Figure 3-5: Site Plan – Central 3-17
Figure 3-6: Site Plan – North 3-19
Figure 4.2-1: California Population, Gross State Product (GSP), Diesel Cancer Risk, and Diesel Vehicle Miles Traveled (VMT) Regulatory Context 4.2-13
Figure 4.4-1: Typical A-Weighted Sound Levels 4.4-4

TABLES

Table 1.A: Executive Summary Matrix 1-8
Table 3.A: Required Permits and Approvals 3-23
Table 4.1.A: USDA Land Capability Classifications 4.1-3
Table 4.1.B: Land Capability Subclass Units 4.1-3
Table 4.1.C: City of Clovis General Plan Policies Related to Agricultural Resources 4.1-7
Table 4.1.D: Farmland Mapping and Monitoring Program Farmland Designations in the Heritage Grove Study Area 4.1-8
Table 4.1.E: Land Evaluation and Site Assessment Scoring for TM 6343 Project 4.1-9
Table 4.2.A: Sources and Health Effects of Air Pollutants 4.2-3
Table 4.2.B: Federal and State Ambient Air Quality Standards 4.2-7
Table 4.2.C: San Joaquin Valley Air Basin Air Quality Attainment Status 4.2-11
Table 4.2.D: Ambient Air Quality at Nearby Monitoring Stations 4.2-12
Table 4.2.E: Screening Levels for Potential Odor Sources 4.2-20
Table 4.2.F: City of Clovis General Plan Policies Related to Air Quality 4.2-21
Table 4.2.G: SJVAPCD Construction and Operation Thresholds of Significance (Tons per Year) 4.2-22
Table 4.2.H: Project Construction Emissions (Tons Per Year) 4.2-27
Table 4.2.I: Project Operation Emissions (Tons Per Year) 4.2-28
Table 4.2.J: Inhalation Health Risks from Project Construction to Off-Site Receptors 4.2-31
Table 4.3.A: Global Warming Potential of Greenhouse Gases 4.3-2
Table 4.3.B: Potential Impacts of Global Warming and Expected Consequences for California 4.3-6
Table 4.3.C: 2012 City of Clovis Community-Wide GHG Emissions Inventory by Sector 4.3-8
Table 4.3.D: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets 4.3-13
Table 4.3.E: City of Clovis General Plan Policies Related to Greenhouse Gas Emissions 4.3-18
Table 4.3.F: Construction Greenhouse Gas Emissions 4.3-20
Table 4.3.G: Operational Greenhouse Gas Emissions 4.3-21
Table 4.4.A: Definitions of Acoustical Terms 4.4-3
Table 4.4.B: Human Response to Different Levels of Ground-Borne Noise and Vibration 4.4-6
Table 4.4.C: Existing Traffic Noise Levels 4.4-8

Table 4.4.D: Interpretation of Vibration Criteria for Detailed Analysis 4.4-10
Table 4.4.E: Construction Vibration Damage Criteria 4.4-10
Table 4.4.F: City of Clovis General Plan Policies Related to Noise 4.4-11
Table 4.4.G: Land Use and Noise Compatibility Matrix 4.4-12
Table 4.4.H: City of Clovis Maximum Exterior Noise Standards 4.4-12
Table 4.4.I: City of Clovis Maximum Interior Noise Standards 4.4-13
Table 4.4.J: Typical Construction Equipment Noise Levels 4.4-15
Table 4.4.K: Traffic Noise Levels Without and With Proposed Project 4.4-17
Table 4.4.L: Vibration Source Amplitudes for Construction Equipment 4.4-23
Table 4.4.M: Summary of Construction Equipment and Activity Vibration 4.4-24
Table 4.5.A: City of Clovis General Plan Policies Related to Transportation 4.5-8
Table 4.5.B: Recommended Improvements for Intersections 4.5-14
Table 4.5.C: Recommended Improvements for Roadway Segments 4.5-15
Table 5.A: Comparison of the Environmental Impacts of the Proposed Project to the Project Alternatives 5-20

1.0 EXECUTIVE SUMMARY

This chapter provides an overview of the purpose of this Environmental Impact Report (EIR), proposed project and its environmental impacts based on the analysis included in this EIR, including a discussion of alternatives and cumulative project impacts. As required under CEQA, this chapter also includes potential areas of public controversy known to the City of Clovis, the lead agency for the proposed project.

1.1 PURPOSE

This Draft Environmental Impact Report (Draft EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the proposed Tract Map 6343. This EIR has been prepared in conformance with CEQA, California Public Resources Code Section 21000 et seq; the California *CEQA Guidelines* (California Code of Regulations, Title 14, Section 15000 et seq); and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Clovis (herein referred to as the City).

This EIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the potential environmental impacts associated with the construction of the proposed project. In addition to identifying potential environmental impacts, this EIR also identifies potential mitigation measures and alternatives to reduce potential significant environmental impacts.

Environmental impacts cannot always be mitigated to a level that is considered less than significant. In accordance with Section 15093(b) of the *State CEQA Guidelines*, if a lead agency, such as the City of Clovis, approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the lead agency shall state in writing the specific reasons for approving the project, based on the final CEQA documents and any other information in the public record for the project. This is identified in Section 15093 of the *State CEQA Guidelines*, "a statement of overriding considerations". These potential impacts are discussed in more detail throughout Chapter 4.0 of this EIR.

1.2 PROJECT SUMMARY

The following provides a summary of the project location, project description, project objectives, potential significant and unavoidable impacts that could result from the proposed project, and a list of the agencies responsible for implementation of the proposed project and approvals required for the project.

1.2.1 Project Location

The City of Clovis is in the central portion of Fresno County, approximately 6.5 miles northeast of the City of Fresno downtown area. The project site is in an unincorporated area of Fresno County. The project site is within the Sphere of Influence of the City of Clovis, and within the Northwest Urban Center area identified in the City's General Plan, now referred to as Heritage Grove. The project site

is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, FMFCD ponding basin, and Tract Map 6200 to the east.

1.2.2 Project Description

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. The project site would also include 66 outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. The proposed project would be developed in three phases, as described below.

1.2.2.1 Phase 1

Phase 1 would include the development of approximately 136 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress street and one egress street located on Perrin Avenue. Phase 1 would include the construction of approximately 44 parking spaces, an approximately 8,745 square-foot community pool and recreation area, an approximately 13,930 square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

1.2.2.2 Phase 2

Phase 2 would include the development of approximately 214 single-family residential units with an average size of approximately 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress street located along the future southern extension of Baron Avenue, and one gated ingress and egress street along Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

1.2.2.3 Phase 3

Phase 3 of the proposed project would include the development of approximately 240 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress streets along the future southern extension of Baron Avenue, and through one gated egress street access along the future northern extension of Hammel Avenue. Phase 3 would

include the construction of approximately 91 parking spaces, an approximately 9,985 square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue.

In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot-long extension of Baron Avenue south of East Behymer Avenue.

1.2.3 Project Objectives

The following is a list of objectives for the proposed project:

- Provide residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis.
- Establish a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand.
- Implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land.
- Provide infrastructure that meets City standards and is integrated with existing and planned facilities and connections.
- Develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

1.2.4 Significant Unavoidable Adverse Impacts

The proposed project would result in the following significant unavoidable impacts:

- Transportation – potentially exceed thresholds of levels of service on roadways in conflict with approved General Plan and increase in VMT.

1.2.5 Lead Agency and Trustee Agencies

The lead agency for the proposed project is the City of Clovis. The City is the public agency that has the principal responsibility for certifying the EIR, approving or carrying out the project, or disapproving the project.

The responsible agencies are State and local public agencies other than the lead agency that have authority to carry out or approve a project or that are required to approve a portion of a project for which the lead agency is preparing or has prepared an EIR or Negative Declaration. There are no agencies other than the City of Clovis that have approval or permitting authority for the adoption of the proposed project.

In addition, implementation of the proposed project would involve many responsible agencies depending upon the specifics of the subsequent projects. Following are some of the agencies that could be required to act as responsible agencies for the project:

- County of Fresno/City of Clovis – Williamson Act Contract Cancellation
- Fresno Local Agency Formation Commission – Annexation
- State Water Resources Control Board – National Pollutant Discharge Elimination System (NPDES) General Permit (with requisite Storm Water Pollution Prevention Plan, Conceptual Storm Water Pollution Prevention Plan, and Permanent Control Measures)

1.3 AREAS OF CONTROVERSY

A total of seven written comment letters were submitted in response to the Notice of Preparation (NOP) and are included in Appendix B of this EIR. Four verbal comments were received at the public scoping session held on January 13, 2023. Comments in response to the NOP generally identified the following areas of potential concern:

- Acceptance of proposed annexation with residents in the vicinity of project area
- The project's potential to result in traffic impacts on the existing bridge across Enterprise Canal on Behymer Avenue
- The project's potential to result in traffic impacts on the Behymer/Fowler and Behymer/ Minnewawa intersections
- The impact of the proposed extension of Baron Avenue on existing traffic operational deficiencies in the project area
- The timing of the Transportation analysis prepared for the project and whether it accounted for school-related traffic
- The project's potential long-term impacts to water supplies, the water table and existing wells in the vicinity of the project area
- The project's potential impacts to biological resources, particularly the California tiger salamander
- The timing of the biological analysis prepared for the project, and its influence on the presence of special status species in the project area during field surveys
- The "less than significant" determination for impacts on agricultural resources in the Initial Study

- The project's LESA model prepared to assess impacts to agricultural land, and whether it is reviewed and approved by a monitoring agency.
- The project's potential to expose nearby residents to elevated noise levels.
- Evaluation of project construction and operational emissions.
- Evaluation of potential health risk impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) and mitigation of any potentially significant risk to help limit exposure of sensitive receptors to emissions.
- Direct and indirect environmental impacts of VMT associated with the project, including impacts to air quality, pedestrian, cyclist, and public transit user safety, ambient noise levels, aesthetics, and road quality.
- Evaluation of cumulative impacts and existing environmental conditions of the area.

The analyses included in the EIR are based on current regulatory requirements, including the current *State CEQA Guidelines*. Comments related to impacts to special status species were considered and addressed in the Section 3.4, Biological Resources, of the Initial Study prepared for this EIR. Comments pertaining to potential impacts to agricultural resources were addressed in Section 4.1, Agricultural Resources, of this EIR. An evaluation of the project's construction and operational emissions and health risk impacts were considered and addressed in Section 4.2, Air Quality. Potential noise impacts were considered and addressed in Section 4.4, Noise. Potential VMT impacts were considered and addressed in Section 4.5, Transportation. Evaluation of cumulative impacts and existing environmental conditions were considered and addressed throughout the EIR and finally, comments related to alternatives to the project were considered and addressed in Chapter 5.0, Alternatives.

1.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in Chapter 4.0, Evaluation of Environmental Impacts, and Chapter 6.0, Other CEQA Considerations, of this EIR. In determining that an EIR was the appropriate environmental document, the City also determined that the following environmental resource topics would be analyzed in detail for the proposed project: Agricultural Resources, Air Quality, Greenhouse Gas Emissions, Noise and Transportation. Other environmental resource topics not included in Chapter 4.0 of the EIR are analyzed in the Initial Study. The environmental resource topics discussed in the Initial Study include Aesthetics, Biological Resources, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Utilities and Service Systems and Wildfire.

1.4.1 Significant Impacts

CEQA defines a significant impact on the environment as "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic

significance." As discussed in more detail in Chapter 4.0, Evaluation of Environmental Impacts, impacts in the following areas would be potentially significant without the implementation of mitigation measures but would be reduced to a less than significant level if the mitigation measures recommended in this report are implemented: Section 4.1 Agricultural Resources; Section 4.2 Air Quality; Section 4.3 Greenhouse Gas Emissions; and Section 4.4 Noise. Additionally, as discussed in the Initial Study prepared for the project (Appendix A), the following areas would be potentially significant without the implementation of mitigation measures but would be reduced to a less than significant level if the mitigation measures recommended in the Initial Study are implemented: Biological Resources, Cultural Resources, Geology and Soils and Tribal Cultural Resources.

1.4.2 Significant Unavoidable Impacts

The proposed project would result in significant and unavoidable impacts to the following environmental resource topic areas:

- Transportation – potentially exceed thresholds of levels of service on roadways in conflict with approved General Plan and increase in VMT.

1.4.3 Cumulative Impacts

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the *State CEQA Guidelines* requires that an EIR evaluate potential environmental impacts that are individually limited, but cumulatively significant. These impacts can result from the proposed project when combined with other past, present, or reasonably foreseeable future projects. As described in Chapter 4.0 of this EIR, the cumulative impacts analysis in this EIR is based on information provided by the City on currently planned, approved, or proposed projects and regional projections for the project area.

1.4.4 Alternatives to the Project

In accordance with CEQA and the *State CEQA Guidelines* (Section 15126.6), an EIR must describe a reasonable range of alternatives to the project, or to the project's location, that could attain most of the project's basic objectives while avoiding or substantially lessening any of the significant adverse environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives that are feasible and necessary to permit a reasoned choice. *State CEQA Guidelines* state that an EIR should not consider alternatives "whose effect cannot be ascertained and whose implementation is remote and speculative."

The alternatives to the proposed project that are discussed and analyzed in Chapter 5.0, Alternatives, of this EIR are:

- **No Project Alternative**: Under the No Project Alternative, the project site would not be developed, and existing land uses would remain. No modifications to existing site access or infrastructure would occur.

- **Reduced Project Alternative:** Under the Reduced Project Alternative, the proposed project would reduce the proposed density of 8.25 dwelling units per acre for (DU/acre) to 4.12 DU/acre, for a total of 295 residential units. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project.

- **Increased Phase Density Alternative:** Under the Increased Phase Density Alternative 590 residential units would be constructed within the 71.54-acre project site, but the residential units would be constructed on approximately 24 acres on northern portion of the project site and 24 acres on the southern portion of the project site to reduce the overall construction period. The remaining approximately 23 acres of the project would be developed as public open space. Overall density of the project site would remain the same as the proposed project (8.25 DU/acre), but each 24-acre development area would have density of 12.3 DU/acre. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project.

Each alternative is compared to the proposed project and discussed in terms of its various mitigating or adverse effects on the environment. Analysis of the alternatives focuses on those topics for which significant adverse impacts would result from the proposed project.

1.5 EXECUTIVE SUMMARY MATRIX

Table 1.A, below, summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental issue areas evaluated in the Initial Study document (Appendix B) prepared for this EIR, and in this Draft EIR. Table 1.A is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding sections of this Draft EIR. Table 1.A is included in the Draft EIR pursuant to *State CEQA Guidelines* Section 15123(b)(1).

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Environmental Impact Report			
4.1: AGRICULTURAL RESOURCES			
Impact AG-1: The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact AG-2: The project would conflict with existing zoning for agricultural use or a Williamson Act contract.	Potentially Significant Impact.	**Mitigation Measure AG-2:** Prior to issuance of building permits, the Project Applicant would need to petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County of Fresno determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the County of Fresno Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.	Less than Significant Impact.
Impact AG-3: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	Less than Significant Impact.	**Regulatory Compliance Measure AG-3:** Pursuant to California Civil Code 3482.5 and Fresno County Ordinance Code §17.04.100, prior approval of building occupancy permits, the Project Applicant shall provide residents of the project site Right-To-Farm notifications. The Right-To-Farm notification would advise future occupants of the project site that they are residing adjacent to agricultural land that has been active for 3 or more years and that they should expect continued activities associated with agricultural production. The Right-to-Farm	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		notice shall include the following: • It is the declared policy of Fresno County to preserve, protect, and encourage development of its agricultural land and industries for the production of food and other agricultural products. Residents of property in or near agricultural districts or agriculturally zoned land or active agricultural land should be prepared to accept the inconveniences and discomfort associated with normal farm activities. Such inconveniences and discomfort could include but is not limited to the following: Dust generation, heavy equipment operation, noise from heavy equipment operation, dust cropping activity using aircraft, insecticide/ pesticide application, no trespassing signage posted on active agricultural land, and the use of crop warmers during cold nights. Consistent with California Civil Code 3482.5 (right-to-farm law), this Right-To- Farm notification provides that an agricultural pursuit, as defined, maintained for commercial uses shall not be or become a nuisance to adjacent land occupied by non-agricultural uses due to a changed condition in a locality after such agricultural pursuit has been in operation for three years.	
Impact AG-4: The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to agricultural resources.	Potentially Significant Impact	Refer to Mitigation Measure AG-2 and Regulatory Compliance Measure AG-3, above.	Less than Significant Impact
4.2: AIR QUALITY			
Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan	Less than Significant.	Refer to Regulatory Compliance Measure AIR-2, below.	Less than Significant.
Impact AIR-2: Implementation of the proposed project would not result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or State ambient air quality standards.	Less than Significant	**Regulatory Compliance Measure AIR-2:** Consistent with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site: • All disturbed areas, including storage piles, which are not	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. • All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. • When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.	
Impact AIR-3: Implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact AIR-4: The project would not result in significant odors that could adversely affect a substantial number of people.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact AIR-5: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not contribute to a significant cumulative impact with respect to air quality.	Less than Significant impact.	Refer to Regulatory Compliance Measure AIR-2, above.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.3: GREENHOUSE GAS EMISSIONS			
Impact GHG-1: The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially Significant Impact.	**Mitigation Measure GHG-1:** In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs.	Less than Significant Impact.
Impact GHG-2: The project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Potentially Significant Impact.	Refer to Mitigation Measure GHG-1 above.	Less than Significant Impact.
Impact GHG-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not contribute to a significant cumulative impact with respect to greenhouse gas emissions.	Potentially Significant Impact.	Refer to Mitigation Measure GHG-1 above.	Less than Significant Impact.
4.4: NOISE			
Impact NOI-1: The project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially Significant Impact.	**Mitigation Measure NOI-1.1:** The project contractor shall implement the following measures during construction of the proposed project: • Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. • Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site. • Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities. • Ensure that all general construction related activities are restricted to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday,	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		consistent with the City's Noise Ordinance. • Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.	
		Mitigation Measure NOI-1.2: The project contractor shall implement the following measures during construction of the proposed project: • In order for windows and doors to remain closed, mechanical ventilation such as air conditioning shall be provided for all units. • All windows and glass doors shall be rated STC 26 or higher such that the noise reduction provided will satisfy the interior noise standard of 45 dBA CNEL.	
Impact NOI-2: The project would not generate excessive groundborne vibration or groundborne noise levels.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact NOI-4: The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to noise.	Potentially Significant Impact.	Refer to Mitigation Measures NOI-1.1 and NOI-1.2 above.	Less than Significant Impact.
4.5: TRANSPORTATION			
Impact TRA-1: The project would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Potentially Significant Impact.	No feasible mitigation measures are available.	Significant and Unavoidable.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact TRA-2: The proposed project would conflict or be inconsistent with *State CEQA Guidelines* section 15064.3, subdivision (b).	Potentially Significant Impact.	No feasible mitigation measures are available.	Significant and Unavoidable.
Impact TRA-3: The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact TRA-4: The project would not result in inadequate emergency access.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impact TRA-5: The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to transportation.	Potentially Significant Impact.	No feasible mitigation measures are available.	Significant and Unavoidable.
Initial Study			
AESTHETICS			
The proposed project would not have a substantial adverse effect on a scenic vista.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact.	No mitigation is required.	No Impact.
The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point), and due to the location of the project in an urbanized area, the project would conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
BIOLOGICAL RESOURCES			
Impact BIO-1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially Significant Impact.	**Mitigation Measure BIO-1: Nesting Bird Surveys and Active Nest Avoidance.** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 15 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist. **Mitigation Measure BIO-2: Conduct Surveys for Swainson's Hawk Nests and Implement** **Avoidance and Minimization Measures.** The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct preconstruction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		will be used to support the survey. Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW). If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated. **Mitigation Measure BIO-3: Conduct Pre-construction Clearance Surveys for Burrowing Owl.** A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate	

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site. **Mitigation Measure BIO-4: Passive Relocation Measures for Burrowing Owl.** If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993). If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone	

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.	
The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Potentially Significant Impact.	**Regulatory Compliance Measure BIO-1: Agency Coordination for Enterprise No. 109 Canal.** Prior to any modifications to Enterprise No. 109 Canal, it is recommended to consult with the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). If direct modifications to the canal are proposed, a notification of streambed alteration shall be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE shall be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Enterprise No. 109 Canal modifications.	Less than Significant Impact.
The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
migratory wildlife corridors, or impede the use of native wildlife nursery sites.			
The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan	No Impact.	No mitigation is required.	No Impact.
CULTURAL RESOURCES			
Impact CUL-1: The project would cause substantial adverse change in the significance of a historical resource pursuant to §15064.5	Potentially Significant Impact.	**Mitigation Measure CUL-1: Consultation with Qualified Historical Specialist for Resources Found During Project Construction.** If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the *State CEQA Guidelines*. If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the *State CEQA Guidelines*, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study. A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center.	
The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5	Potentially Significant Impact.	Refer to Mitigation Measure CUL-1 above.	Less than Significant Impact.
Impact CUL-2: The project would disturb any human remains, including those interred outside of formal cemeteries	Potentially Significant Impact.	**Mitigation Measure CUL-2** In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Project Applicant shall discuss and confer with the	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		descendants all reasonable options regarding the descendants' preferences for treatment.	
ENERGY			
The project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
GEOLOGY AND SOILS			
Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Strong seismic ground shaking.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Seismic-related ground failure, including liquefaction.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Landslides.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Result in substantial soil erosion or the loss of topsoil.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water	No Impact.	No mitigation is required.	No Impact.
Impact GEO-1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant Impact.	**Mitigation Measure GEO-1:** If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource. If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.	Less than Significant Impact.
HAZARDS AND HAZARDOUS MATERIALS			
The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
HYDROLOGY AND WATER QUALITY			
The project would violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			
Result in substantial erosion or siltation on or off site	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Impede or redirect flood flows.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
LAND USE AND PLANNING			
The project would physically divide an established community.	No Impact.	No mitigation is required.	No Impact.
The project would cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
MINERAL RESOURCES			
The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
POPULATION AND HOUSING			
The project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses or indirectly (for example, through extension of roads or other infrastructure)	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
PUBLIC SERVICES			
The project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for the following public services:			
Fire protection	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Police protection	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Schools	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Parks	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Other Public Facilities	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
RECREATION			
The project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
TRIBAL CULTURAL RESOURCES			
The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural			

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
value to a California Native American tribe, and that is:			
Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).	Potentially Significant Impact.	Refer to Mitigation Measure CUL-1 and CUL-2, above.	Less than Significant Impact.
A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Potentially Significant Impact.	Refer to Mitigation Measure CUL-1 and CUL-2, above.	Less than Significant Impact.
UTILITY AND SERVICE SYSTEMS			
The project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
The project would comply with federal, state, and local management and reduction statutes and regulations	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

Table 1.A: Executive Summary Matrix

Potential Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
related to solid waste.			
WILDFIRE			
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the project would:			
Substantially impair an adopted emergency response plan or emergency evacuation plan.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.
Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Less than Significant Impact.	No mitigation is required.	Less than Significant Impact.

APN = Assessor's Parcel Number
CEQA = California Environmental Quality Act
CNEL = Community Noise Equivalent Level
dBA = A=weighted decibels
PM_{10} = particulate matter 10 microns or less in diameter
RWQCB = Regional Water Quality Control Board
SJVAPCD = San Joaquin Valley Air Pollution Control District
STC = sound transmission class
USACE = United States Army Corps of Engineers

2.0 INTRODUCTION

2.1 PURPOSE OF THIS EIR

The California Environmental Quality Act (CEQA) requires that all State and local government agencies consider the environmental consequences of programs and projects over which they have discretionary authority before taking action on them. This Environmental Impact Report (EIR) has been prepared in accordance with CEQA to evaluate the potential environmental impacts associated with implementation of Tract Map 6343 (herein referred to as the proposed project) for the City of Clovis. This EIR has been prepared in conformance with CEQA, California Public Resources Code Section 21000 et seq; the California CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq); and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Clovis (herein referred to as the City).

This EIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the potential environmental impacts associated with the construction the proposed project. This EIR identifies potential environmental impacts resulting from the proposed project, and identifies potential mitigation measures and alternatives to reduce potential environmental impacts.

Environmental impacts cannot always be mitigated to a level that is considered less than significant. In accordance with Section 15093(b) of the State CEQA Guidelines, if a lead agency, such as the City of Clovis, approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the lead agency shall state in writing the specific reasons for approving the project, based on the final CEQA documents and any other information in the public record for the project. This is identified in Section 15093 of the State of CEQA Guidelines, “a statement of overriding considerations.” These potential impacts are discussed in more detail throughout Chapter 4.0 of this EIR.

2.2 ENVIRONMENTAL REVIEW PROCESS

The City of Clovis, serving as Lead Agency responsible for administering the environmental review for the proposed project, determined that preparation of an EIR was required for the proposed project.

CEQA requires that, before a decision can be made to approve a project that could result in adverse physical effects, an EIR must be prepared that fully describes the environmental effects of the project. The EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental impacts of a project, to recommend mitigation measures to lessen or eliminate significant adverse impacts, and to examine feasible alternatives to the project. The information contained in the EIR must be reviewed and considered by the City of Clovis Planning Commission, City Council, and other approving bodies prior to a decision to approve, disapprove, or modify the project.

As part of the consideration of the proposed project, an agency must prepare findings that identifies that all environmental effects of the project are supported by substantial evidence in the record. CEQA requires that agencies shall neither approve nor implement a project unless the project's significant environmental effects have been reduced to a less-than-significant level, essentially "eliminating, avoiding, or substantially lessening" the potentially significant impacts, except when certain findings are made. If an agency approves a project that will result in the occurrence of significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must state the reasons for its action in writing, demonstrate that its action is based on the EIR or other information in the record, and adopt a Statement of Overriding Considerations.

2.3 INTENDED USES OF THIS EIR

As noted above and described in the CEQA Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects, where feasible. In undertaking this duty, a public agency has an obligation to balance a project's significant effects on the environment with its benefits, including economic, social, technological, legal, and other non-environmental characteristics.

This EIR is intended as an informational document to: evaluate the proposed project and the potential for significant impacts on the environment; examine methods of reducing adverse environmental impacts; identify any significant and unavoidable adverse impacts that cannot be mitigated; and identify reasonable and feasible alternatives to the proposed project that would eliminate any significant adverse environmental effects or reduce the impacts to a less-than-significant level. The Lead Agency is required to consider the information in the EIR, along with any other relevant information, in making its decisions on the proposed project. This analysis, in and of itself, does not determine whether a project will be approved, but aids the planning and decision-making process by disclosing the potential for significant and adverse impacts.

In conformance with CEQA and the CEQA Guidelines, this EIR provides objective information addressing the environmental consequences of the project and identifies possible means of reducing or avoiding significant impacts, either through mitigation measures or feasible project alternatives. The City of Clovis must certify the Final EIR prior to project approval and implementation. Under CEQA Guidelines Section 15168, this is a project-level EIR. This type of EIR examines a specific project and considers potential construction and operational impacts of implementing the project.

The CEQA Guidelines help define the role and standards of this EIR, as follows:

- **Information Document.** An EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effect(s) of a project, identify possible ways to minimize significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency (CEQA Guidelines Section 15121(a)).

- **Degree of Specificity.** The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. An EIR on a development project will necessarily be more detailed in its discussion of specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy (CEQA Guidelines Section 15146(a)).

- **Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information, which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure (CEQA Guidelines Section 15151).

Section 15382 of the CEQA Guidelines defines a significant effect on the environment as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…" Therefore, in identifying the significant impacts of the project, this EIR focuses on the substantial physical effects and mitigation measures to avoid, reduce, or otherwise alleviate those effects.

2.4 PROPOSED PROJECT

The proposed project would consist of the annexation of 246 acres by the City of Clovis and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. See Chapter 3.0, Project Description of this EIR for a more complete description of the proposed project.

2.5 EIR SCOPE

A Notice of Preparation (NOP) of the EIR and Initial Study was circulated for 30 days on December 19, 2022, to help identify the types of impacts that could result from implementation of the proposed project, as well as potential areas of controversy. The NOP was mailed to public agencies, organizations, and individuals likely to be interested in the project and its potential impacts. Additionally, a public scoping meeting to inform interested parties and the public about the proposed project was held on January 13, 2023. A total of seven written comment letters regarding the NOP were received, in addition to the four verbal comments provided at the scoping session.

The NOP and Initial Study are included in Appendix A, and copies of the public comment letters received in response to the NOP are included in Appendix B.

The Initial Study prepared for this EIR evaluated the environmental issue topics required by CEQA. The individual environmental topics evaluated in the Initial Study include the following:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The Initial Study identified potentially significant environmental issue topics that will be analyzed in more detail in this Draft EIR. The topics include:

- Agricultural Resources
- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation

2.6 REPORT ORGANIZATION

This EIR is organized into the following chapters:

- **Chapter 1.0 – Executive Summary**: Provides a summary of the impacts that would result from implementation of the proposed project, describes mitigation measures recommended to reduce or avoid significant impacts, and describes the alternatives to the proposed project.

- **Chapter 2.0 - Introduction**: Discusses the overall EIR purpose, provides a summary of the proposed project, describes the EIR scope, and summarizes the organization of the EIR.

- **Chapter 3.0 - Project Description**: Provides a description of the project site, the project objectives, the proposed project, and intended uses of this EIR.

- **Chapter 4.0 – Evaluation of Environmental Impacts**: Describes the following for each environmental technical topic: existing conditions (setting), potential environmental impacts and their level of significance, and mitigation measures recommended to mitigate identified impacts. Potential adverse impacts are identified by levels of significance, as follows: less-than-significant impact (LTS), significant impact (S), and significant and unavoidable impact (SU). The significance

of each impact is categorized before and after implementation of any recommended mitigation measures(s). Cumulative impacts are also addressed.

- **Chapter 5.0 - Alternatives**: Provides an evaluation of the alternatives to the proposed project in addition to the CEQA-required No Project alternative.

- **Chapter 6.0 – CEQA-Required Assessment Conclusions**: Provides an analysis of effects found not to be significant, growth-inducing impacts, unavoidable significant environmental impacts, and significant irreversible changes.

- **Chapter 7.0 - Report Preparation**: Identifies preparers of the EIR, and the persons and organizations contacted.

- **Chapter 8.0 - References:** Provides reference list of sources used for the preparation of this EIR.

- **Appendices***:* The appendices contain the NOP and Initial Study, comment letters on the NOP, technical calculations, and other documentation prepared in conjunction with this EIR.

2.7 PUBLIC PARTICIPATION

The CEQA Guidelines encourage public participation in the planning and environmental review processes. The City will provide opportunities for the public to present comments and concerns regarding the CEQA and planning processes. These opportunities will occur during the Draft EIR public review and comment period and public hearings before the City of Clovis Planning Commission and City Council.

This Draft EIR, in compliance with Section 15105 of the CEQA Guidelines, has been distributed to responsible and trustee agencies, and other interested organizations, agencies and individuals for review and comment on the adequacy of the environmental analysis.

The Draft EIR 46-day public review and comment period for this project began on January 12, 2024 and will end on February 26, 2024.

Written public comments may be submitted to the Planning and Development Department during the specified public review and comment period, and oral comments may be presented at the Draft EIR public hearing before the City of Clovis Planning Commission and City Council. Written comments should be delivered in person or by courier service, or be sent by mail or email to:

Lily Cha-Haydostian, Senior Planner
Planning Division
City of Clovis
1033 Fifth Street
Clovis, CA 93612
(559) 324-2335
lilyc@cityofclovis.com

This page intentionally left blank.

3.0 PROJECT DESCRIPTION

The following describes the proposed residential subdivision Tract Map 6343 (project), and associated entitlements proposed by Wilson Premier Homes, Inc. (Project Applicant). The proposed project would consist of developing a 71.54-acre project site into an approximately 590-lot single-family residential development, and the annexation of 246 acres by the City of Clovis. The City of Clovis (City) is the lead agency for review of the proposed project under the California Environmental Quality Act (CEQA).

3.1 PROJECT AREA LOCATION AND SETTING

The following section describes the location and characteristics of the project site and annexation area and provides a brief overview of the existing land uses within, and near, the proposed project.

3.1.1 Location

The project site is located on Assessor's Parcel Number (APNs) 556-040-07S, -08S, and 556-030-14S, within the Northwest Urban Center area identified in the 2014 City of Clovis General Plan, now referred to as Heritage Grove. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The annexation area encompasses the project site, as well as APNs 556-040-06S, - 09S, -13ST, -15S, -16S, -17ST, -18S, -20S, -22ST, -23S, -24S and 556-050-35S. The annexation area is located on the southwest quadrant of the intersection between East Behymer Avenue and North Sunnyside Avenue. Figure 3-1 shows the proposed project's regional and local context.

3.1.2 Project Site and Annexation Area Characteristics and Existing Conditions

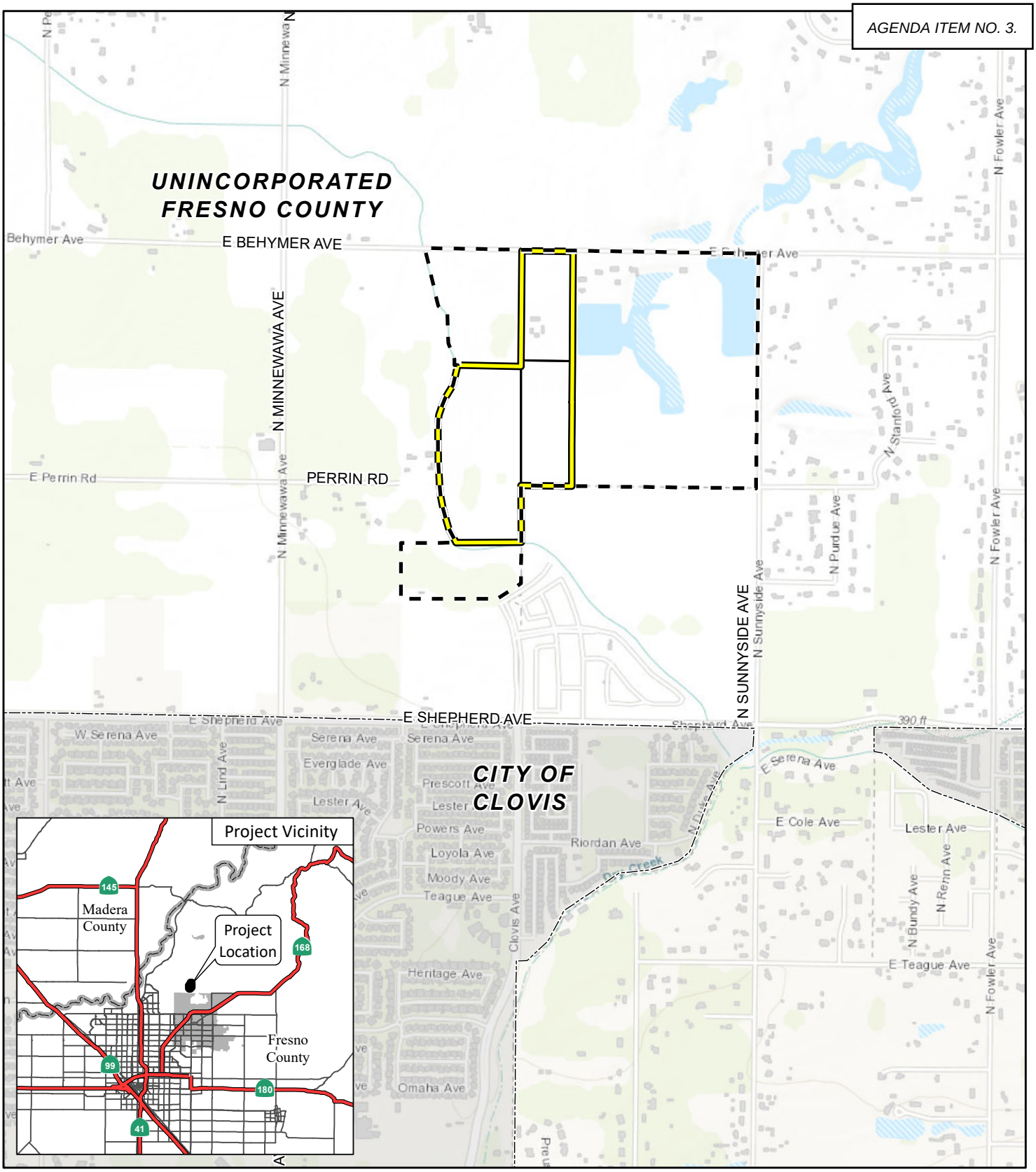
The project site is approximately 71.54 acres in size and is currently being used for agriculture and contains one rural residence. Parcel APN 556-030-14S is currently under a Williamson Act contract[1], while all other parcels within the project site are not under a Williamson Act contract. Agriculture crops that have been historically grown on the project site include pistachios, almonds, wheat, cotton, grapes, and oranges.[2] There is one existing dwelling unit in the project site, consisting of a single-family residence and three agriculture-related outbuilding structures.

The Enterprise Canal borders the project site's western and southern boundaries. The Enterprise Canal is owned and operated by the Fresno Irrigation District (FID) and serves to deliver water for irrigation, recharge, conveyance of stormwater flows, and municipal use for Fresno and Clovis. Within the annexation area and adjacent to the project site, the Enterprise Canal is approximately 4,300 feet in length, 30 feet wide, lined, and elevated above adjacent ground.

1 A petition for the cancellation of the Williamson Act Contract for APN 556-030-14S is currently in progress, pursuant to conditions set forth in Government Code (GC) § 51280 et seq.

2 United States Department of Agriculture. 2021. National Agriculture Statistics Service. CropScape-Cropland Data Layer. Website: https://nassgeodata.gmu.edu/CropScape/ (accessed May 26, 2022).

This page intentionally left blank



LSA

LEGEND

- Project Location
- Parcel Boundary
- Annexation Boundary
- Clovis City Limit

0 750 1500
FEET

SOURCE: Esri Streetmap (2021)

\\lsaazfiles.file.core.windows.net\images\CIT2201\GIS\MXD\Regional_Local_Context.mxd (12/6/2022)

FIGURE 3-1

Tract Map 6343

Regional and Local Context

This page intentionally left blank

The 246-acre annexation area of the proposed project includes existing rural residential and agricultural uses. Approximately 88 acres of the annexation area are currently used for agricultural production. The rural residential uses are located on the northern boundary of the annexation area and consist of five approximately 2.3-acre lots, and one 4.7-acre lot. The remaining 141.8 acres of the annexation area are not currently used in agricultural production or contain rural residential uses.

The proposed annexation boundary is located within the City of Clovis' Sphere of Influence (SOI) as established in the City's 2014 General Plan. Located in the Northwest Urban Center or Heritage Grove area for Clovis, the project area and surrounding properties to the north and west have been identified for future development. Heritage Grove is planned for more compact type development inclusive of residential and mixed-use land use designations. Lands within the project boundary have been designated for future residential development, exclusive of the water basin that will remain. The City has adopted design guidelines to direct future development and improvement of the Heritage Grove area.

Parcels 556-040-13ST, -17ST, and 22ST, east of the project site, are owned by the FMFCD and are the location of stormwater retention Basin BY. Basin BY retains stormwater in Drainage Area BY, an area bounded by East Copper Avenue to the north, North Sunnyside Avenue to the east, East Shepherd Avenue and the Enterprise Canal to the south, and North Minnewawa to the west.

3.1.3 Surrounding Land Uses

The project site and annexation area are surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north. The closest schools to the project site include Woods Elementary School, which is located approximately 0.75 mile south of the project, Buchanan High School is located approximately 1 mile southwest of the project site, and Alta Sierra Intermediate School is located approximately 1.2 miles from the project site. Figure 3-2 shows the project site, annexation area, and surrounding land uses.

3.1.4 Zoning

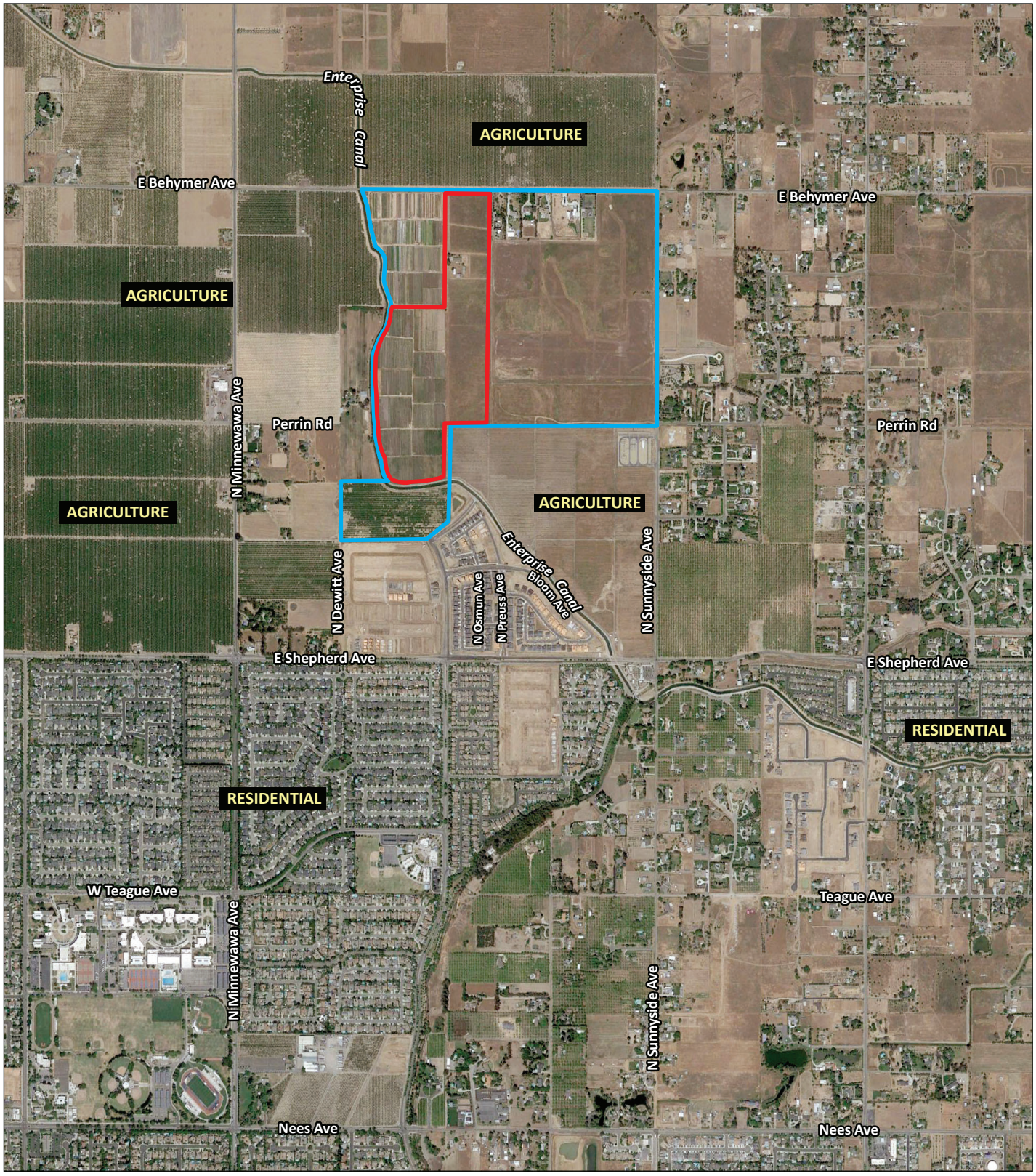
The project site and annexation area are located within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. According to the Fresno County Ordinance Code, this district is intended to protect the welfare of the agricultural community of the County from encroachment of non-related uses of the land that could be detrimental to the physical and economic well-being of the community. The project proposes to pre-zone the project site to the City of Clovis' R-1 Zone District (R-1-PRD).

3.1.5 General Plan Land Use

The designated land uses for the project site and annexation area, according to the City of Clovis General Plan, include Medium Density Residential, Very Low Density Residential, and Water. The land use of the project site would be amended to Medium High Density Residential.[3]

[3] City of Clovis, 2014. General Plan. Land Use Element. Figure LU-2: Land Use Diagram. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Figure-LU-2.pdf. (accessed April 19, 2022).

This page intentionally left blank



LSA

Project Site TM-6343 Boundary

Annexation Boundary

0 1000 2000

FEET

FIGURE 3-2

Tract Map 6343

Aerial Photograph of the Project Site and Surrounding Land U

SOURCES: Google Earth 4/21/2021; LSA, 2022

I:\CIT2201\G\Aerial Photo of Site&Surrounding LU.ai (12/6/2022)

This page intentionally left blank

3.2 PROJECT OBJECTIVES

The following is a list of project objectives of the proposed project:

- Provide residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis.
- Establish a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand.
- Implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land.
- Provide infrastructure that meets City Standards and is integrated with existing and planned facilities and connections.
- Develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

3.3 PROPOSED PROJECT

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over three phases, as described below. Additionally, sixty-six outlot spaces would be included within the project site. Although the project site plan does not provide details on what would be constructed in these spaces, potential uses would include private road, private parking, private pedestrian, private landscaping, public utility, and public park uses. The proposed project would include the removal of one existing 2,679 square-foot dwelling unit and garage, an existing propane tank, a 2,000 square-foot pole barn, two sheds totaling 1,785 square feet and 2,250 square feet, and an existing driveway on the project site. Figure 3-3 shows the proposed project's site plan.

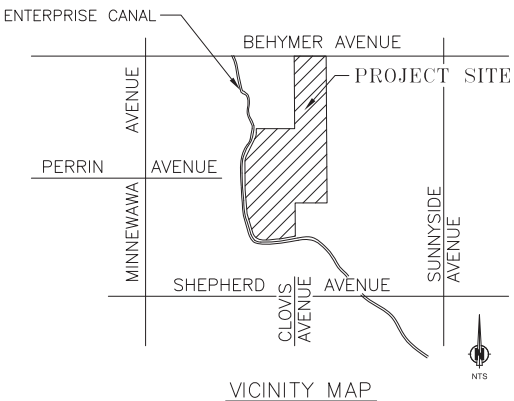
No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 174.46-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis.

3.3.1 Building Program

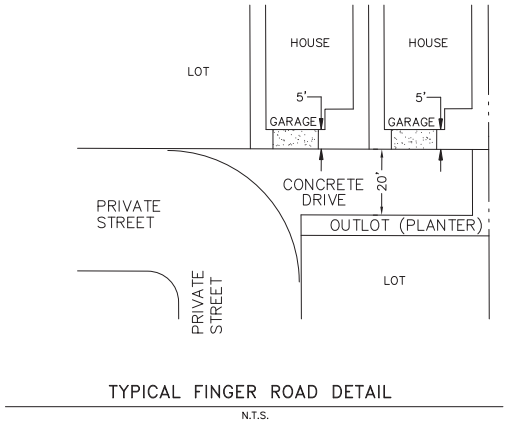
3.3.1.1 Phase 1

Phase 1 of the proposed project would include the development of approximately 136 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress street and one egress street on Perrin Avenue. Phase 1 would include the construction of

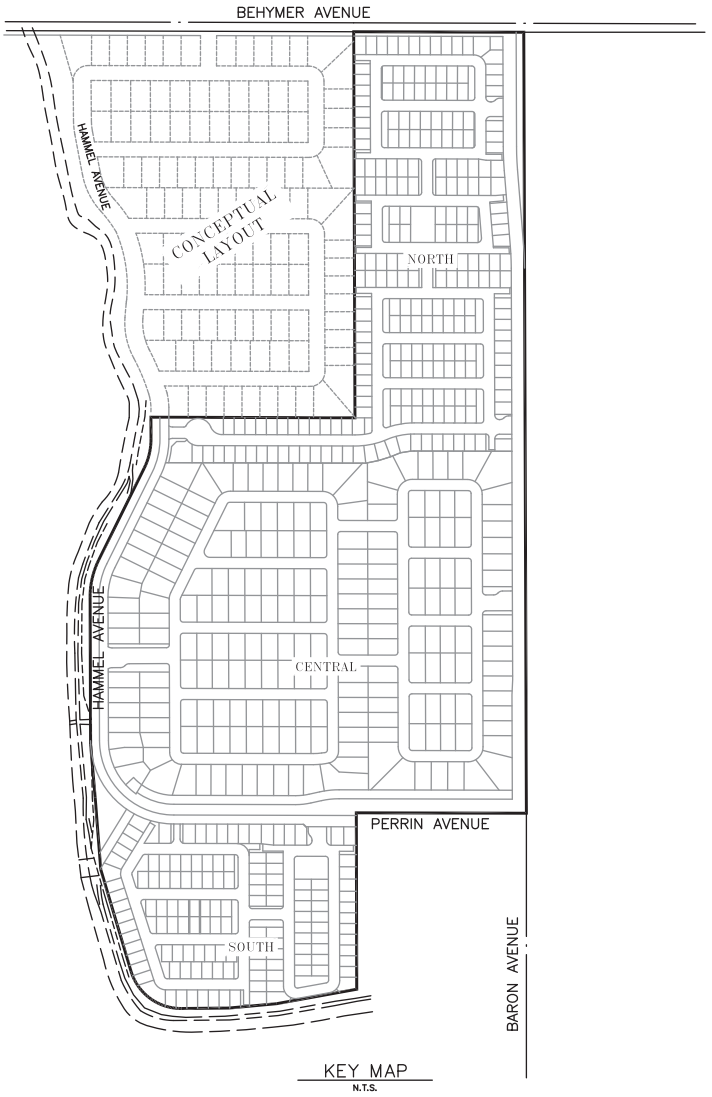
This page intentionally left blank



VICINITY MAP
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.



KEY MAP
N.T.S.

LSA

FIGURE 3-3

N

NOT TO SCALE

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\Fig 3-3_General Site Plan.ai (4/14/2022)

Tract Map 6343
General Site P

This page intentionally left blank

approximately 44 parking spaces, an approximately 8,745-square-foot community pool and recreation area, an approximately 13,930-square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue.

The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin Avenue and Hammel Avenue within the project site would be constructed during Phase 1. Figure 3-4 shows a site plan of Phase 1 of the proposed project.

3.3.1.2 Phase 2

Phase 2 of the proposed project would include the development of approximately 214 single-family residential units with an average size of approximately 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress street along the future southern extension of North Baron Avenue, and one gated ingress and egress street along Hammel Avenue. Phase 2 would include the construction of a 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, and storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue. Figure 3-5 shows a site plan of Phase 2 of the proposed project.

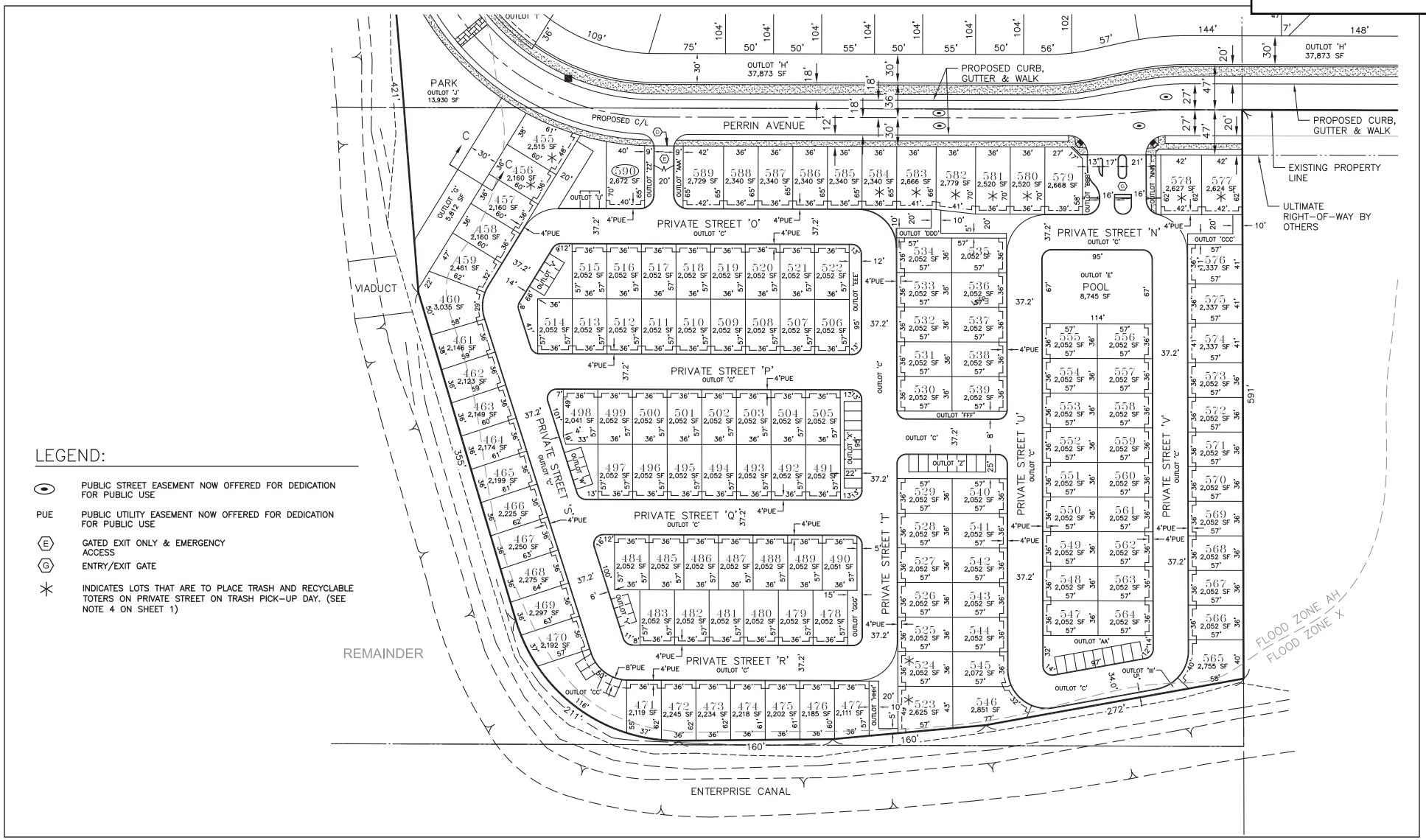
3.3.1.3 Phase 3

Phase 3 of the proposed project would include the development of approximately 240 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress streets located along the future southern extension of North Baron Avenue, and through one gated egress street access located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985-square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along North Baron Avenue Figure 3-6 shows a site plan of Phase 3 of the proposed project.

3.3.2 Landscaping

The proposed project would include the removal of eight existing trees in the project site, and the addition of approximately 1.51-acres of landscaped areas. The proposed project would include front yard landscaping for all the residential lots in the project site, as well as landscaping for the proposed recreation areas to be constructed on the project site. Landscaping would also be included along the project frontage with Behymer Avenue, Baron Avenue, Perrin Avenue and Hammel Avenue. All landscaping included in the proposed project would comply with landscaping and water efficiency standards and requirements of Chapter 6.5: Water System, Article 5: Water Efficient Landscape Requirements and Chapter 9.28: Landscaping Standards of the Clovis Municipal Code.

This page intentionally left blank



LEGEND:

- PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- PUE — PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- (E) — GATED EXIT ONLY & EMERGENCY ACCESS
- (G) — ENTRY/EXIT GATE
- ✳ — INDICATES LOTS THAT ARE TO PLACE TRASH AND RECYCLABLE TOTERS ON PRIVATE STREET ON TRASH PICK-UP DAY. (SEE NOTE 4 ON SHEET 1)

LSA

FIGURE 3-4

N

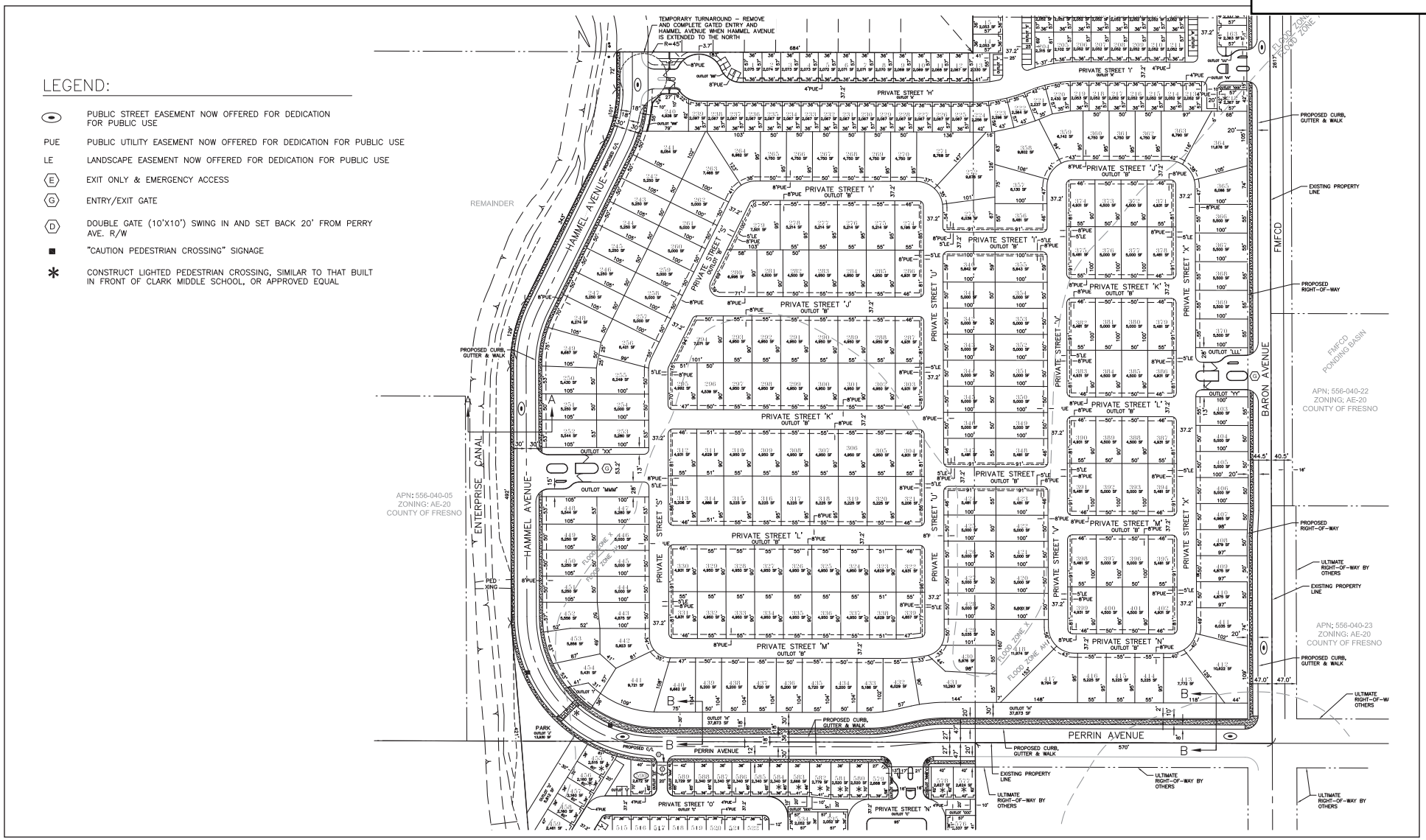
0 60 120
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\Fig 3-4_South-Phase 1.ai (4/22/2022)

Tract Map 6343
South: Pha

This page intentionally left blank



LSA

FIGURE 3-5

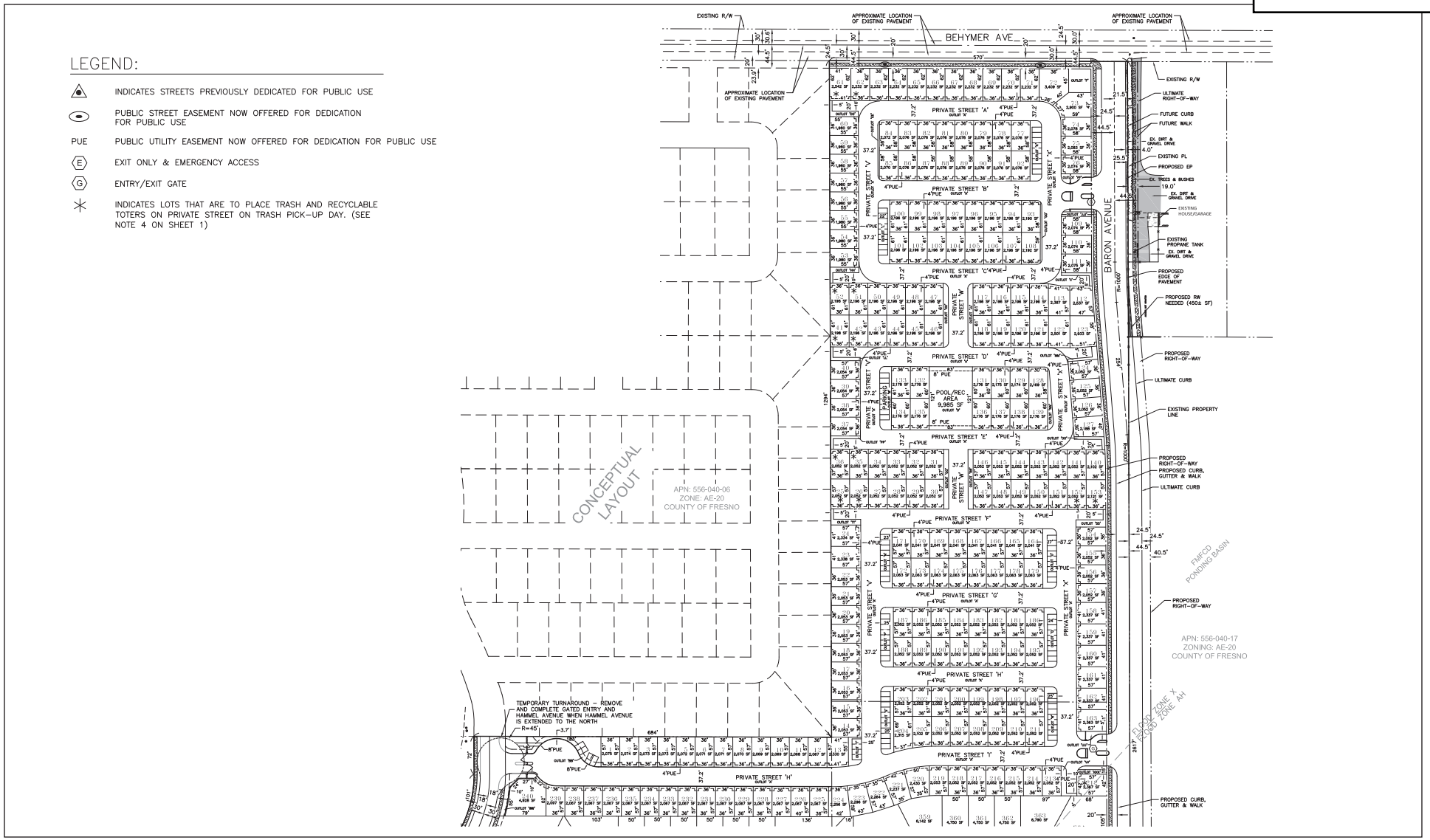
0 100 200
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\Fig 3-5_Central-Phase 2.ai (4/22/2022)

Tract Map 6343
Central: Pha

This page intentionally left blank



LSA

FIGURE 3-6

0 80 160
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\Fig 3-6_North-Phase 3.ai (4/22/2022)

Tract Map 6343
North: Pha

This page intentionally left blank

3.3.3 Open Space

As described above the proposed project would include the construction of an approximately 8,745 square-foot community pool and recreation area with concrete paving, restrooms, and a shade structure, and an approximately 13,930 square-foot community park with pedestrian pathways, outdoor benches, and shade trees within Phase 1. In addition, the proposed project would include the construction of an approximately 9,985 square-foot pool and recreation area with concrete paving, restrooms, and a shade structure within Phase 3.

3.3.4 Lighting

The proposed project would introduce new sources of light into the project site. All permanent street lights would be installed consistent with City standards.

3.3.5 Utilities and Infrastructure

3.3.5.1 Water

Water supply for the proposed project would be provided by the City of Clovis. The project would require the construction of a 24-inch water main along Behymer Avenue from the west limits of the Tract 6343 project site to Baron Avenue. Additionally, the project would construct a 24-inch main along Baron Avenue, from Behymer Avenue to Perrin Avenue. The proposed improvements would be consistent with the City's Water Master Plan and the City's specifications on materials, depth, and resurfacing.

3.3.5.2 Wastewater

Wastewater services for the proposed project would be provided by the City of Clovis. The proposed project would connect to an existing wastewater main within the right-of-way of North Baron Avenue.

3.3.5.3 Stormwater Management

The FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along Baron, Perrin and Hammel Avenues as well as along internal roadways in the project site and redirected towards FMFCD ponding Basin BY, which is adjacent to the project site's eastern boundary.[4]

In addition, a 1,300-foot long, 26-foot-wide drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows west from the project site, towards drainage infrastructure along the Enterprise Canal.

[4] Fresno Metropolitan Flood Control District. 2019. Storm Drainage and Flood Control Master Plan. Website: https://www.fresnofloodcontrol.org/wp-content/uploads/2021/03/exhibit-A-11x17-1.pdf (accessed April 19, 2022).

Storm drainage pipelines would be constructed along North Baron Avenue and along interior roadways in the project site to drain stormwater from the project site towards Basin BY. These storm drainage facilities would be constructed pursuant to requirements of the FMFCD Master Plan.

3.3.5.4 Solid Waste

Solid waste collection for the project site would be provided by the City of Clovis, and recycling and green waste collection would be provided by Republic Services.

3.3.5.5 Electricity and Telecommunication

Electricity for the proposed project would be supplied by the Pacific Gas and Electric Company (PG&E) through connections to existing service lines. The proposed project would rely on electricity for all power needs, and natural gas would not be provided to the project site. Telecommunication services to the project site would be provided by Comcast and AT&T.

3.3.6 Site Access and Circulation

Access to the project site would be provided by East Behymer Avenue and by a southern extension of North Baron Avenue, to be constructed during Phase 1 of the proposed project along the eastern boundary of the project site. The proposed project would construct approximately 2,650 feet of North Baron Avenue south of East Behymer to connect with the existing stretch of North Baron Avenue located southeast of the project site. This portion of North Baron Avenue would be approximately 49 feet wide and have two lanes, a turn lane, and one bike lane and shoulder along the east side.

An approximately 20-foot-wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and landscaped areas would be included along the western side of North Baron Avenue along the project site. An approximately 16-foot-wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and landscaped area that is reduced from the Heritage Grove Neighborhood Boulevard Street section would be included along the eastern side of North Baron Avenue, along the FMFCD Basin BY frontage. The eastern side of North Baron Avenue that is north of Basin BY will ultimately be built out with an approximately 20-foot-wide parkway, matching the Heritage Grove Neighborhood Boulevard Street section. However, this section of the parkway will not be constructed with Tract 6343 in order to minimize the impact on the adjacent rural residential property. The pedestrian walk and bike lane will continue north of Basin BY to East Behymer Avenue with Tract 6343, but the improvements will be temporary until the adjacent rural residential parcel on the east side of North Baron Avenue develops further, at which point they will be modified. The exact configuration will be approved by the City Engineer with the project design plans.

To access the project site, three gated ingress and egress streets would be constructed along the southern extension of North Baron Avenue. One gated ingress and egress driveway would also be constructed along Hammel Avenue. A temporary secondary access connecting Hammel Avenue to North Baron Avenue would be constructed along the northern end of Hammel Avenue during Phase 3. One gated ingress and egress street and one gated egress access street would be constructed along Perrin Avenue.

Vehicle circulation within the project site would be provided by a network of two-way, 37.2-foot-wide private streets. Internal roadways within the project site would include Hammel Avenue, which is located along the project site's western boundary, and Perrin Avenue, which crosses the project site west to east.

3.3.7 Construction

Construction of the proposed project is expected to take place in three phases over a period of 33 months starting in December 2023. Construction is expected to take place consecutively, with each phase constructed separately. Site preparation would include demolition of existing structures, and removal of rocks, debris, and vegetation from the project site. Grading would require the import of approximately 41,000 cubic yards of soil to level the project site.

3.4 DISCRETIONARY ACTIONS AND USES OF THIS EIR

A number of permits and approvals, including discretionary actions, are listed in Table 3.A and would be required prior to implementation of the proposed project. As lead agency for the proposed project, City of Clovis would be responsible for the majority of the approvals required for development. Other agencies may also have some authority related to the project and its approvals.

Table 3.A: Required Permits and Approvals

Agency	Permit/Approval
County of Fresno/City of Clovis	Williamson Act Contract Cancellation
Fresno Local Agency Formation Commission (LAFCo)	Annexation
State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) General Permit (with requisite Storm Water Pollution Prevention Plan, Conceptual Storm Water Pollution Prevention Plan, and Permanent Control Measures)

Source: Compiled by LSA (2023).

The proposed project would include annexation of approximately 246 acres, including the 71.54-project site. No development is proposed within the remaining approximately 174.46-acre annexation area surrounding the project site, and any future development occurring within the annexation area would require separate, project-specific analysis and approvals.

This page intentionally left blank

4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

This chapter contains an analysis of each potentially significant environmental issue that has been identified for Tract Map 6343 ("proposed project"). The following: (1) identifies how a determination of significance is made; (2) identifies the environmental issues addressed in this chapter; (3) describes the context for the evaluation of cumulative effects; (4) lists the format of the topical issue section; and (5) provides an evaluation of each potentially significant issue in Sections 4.1 through 4.5.

DETERMINATION OF SIGNIFICANCE

Under the California Environmental Quality Act (CEQA), a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment. The CEQA Guidelines direct that this determination be based on scientific and factual data. The impact evaluation in this chapter is prefaced by criteria of significance, which are the thresholds for determining whether an impact is significant. These criteria of significance are based on the CEQA Guidelines and applicable City policies.

ISSUES ADDRESSED IN THE DRAFT EIR

Sections 4.1 through 4.5 of this chapter describe the environmental setting of the project as evaluated in this Environmental Impact Report (EIR) and the impacts that are expected to result from implementation of the proposed project. Mitigation measures are proposed to reduce potential impacts, where appropriate.

4.1 Agricultural Resources
4.2 Air Quality
4.3 Greenhouse Gas Emissions
4.4 Noise
4.5 Transportation

ENVIRONMENTAL SETTING

This chapter has been prepared in accordance with CEQA Guidelines Section 15125, which states: "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. The environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the physical effects of the proposed project and its alternatives."

The Notice of Preparation (NOP) of an EIR for the proposed project was published on December 19, 2022. Thus, each of the environmental topical sections in this chapter includes a discussion of physical conditions in the vicinity of the project site on or around this date.

CUMULATIVE ANALYSIS CONTEXT

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound to increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of "reasonably foreseeable probable future" projects, per CEQA Section 15355. Cumulative impacts can result from a combination of the proposed project together with other closely related projects that cause an adverse change in the environment. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

The methodology used for assessing cumulative impacts typically varies depending on the specific topic being analyzed. CEQA requires that cumulative impacts be discussed using either a list of past, present, and probable future projects producing related or cumulative impacts, or a summary of projections contained in an adopted local, regional, or Statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. This EIR uses both approaches to evaluate cumulative impacts, and the particular approach used depends on the topical area under consideration. Refer to the cumulative discussion in the individual topic sections for further discussion and the identification of the cumulative study for each topic.

FORMAT OF ISSUE SECTIONS

The environmental topical section comprises two primary parts: (1) Environmental Setting, and (2) Impacts and Mitigation Measures. An overview of the general organization and the information provided in the two parts is provided below:

- **Environmental Setting.** The Environmental Setting section for the environmental topic generally provides a description of the applicable physical setting (e.g., existing land uses, existing traffic conditions) for the project site. An overview of regulatory considerations that are applicable to each specific environmental topic is also provided.

- **Impacts and Mitigation Measures.** The Impacts and Mitigation Measures section for the environmental topic presents a discussion of the impacts that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds to determine whether an impact is significant. The latter part of this section presents the impacts from the proposed project and mitigation measures, as appropriate. Cumulative impacts are also addressed.

Impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Impacts and mitigation measures are numbered consecutively and begin with an acronymic or abbreviated reference to the impact section (e.g., TRA for Transportation). The following symbols are used for individual topics:

AG	Agricultural Resources
AIR	Air Quality
GHG	Greenhouse Gas Emissions
NOI	Noise
TRA	Transportation

Impacts are also categorized by type of impact, as follows: No Impact, Less-Than-Significant, Less-Than-Significant with Mitigation Incorporated, and Potentially Significant.

ENVIRONMENTAL ISSUES

Sections 4.1 through 4.5 of this chapter describe the environmental setting of the project as it relates to each specific environmental topic evaluated in the EIR and the impacts that are expected to result from implementation of the proposed project. Mitigation measures are proposed to reduce potential impacts, where appropriate.

This page intentionally left blank

4.1 AGRICULTURAL RESOURCES

The analysis in this section is based on information from the Farmland Impact Assessment prepared for the Heritage Grove Senate Bill (SB) 2 Grant Technical Studies Project[1] (Farmland Impact Assessment), LESA model prepared for the proposed project site[2] (Appendix C) and the Agriculture and Forestry Resources section of the Clovis General Plan Environmental Impact Report (EIR).[3]

4.1.1 Environmental Setting

4.1.1.1 Project Area

The proposed project includes annexation of 246 acres by the City of Clovis, 71.54 acres of which is proposed to be developed as residential uses. The 71.54-acre project site is on Assessor's Parcel Numbers (APNs) 556-040-07S, -08S, and 556-030-14S, within the Northwest Urban Center area, now referred to as Heritage Grove, which has been identified for development in the 2014 City of Clovis General Plan. The project site is currently used for agriculture and contains one rural residence. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The project site and adjacent parcels would become urbanized as development of the Heritage Grove Specific Plan Area takes place.

Parcel APN 556-030-14S is currently under a Williamson Act contract[4], while all other parcels within the project site are not under a Williamson Act contract. Agriculture crops that have been historically grown on the project site include pistachios, almonds, wheat, cotton, grapes, and oranges.[5] There is one existing dwelling unit in the project site, consisting of a single-family residence and three agriculture-related outbuilding structures.

4.1.2 Regulatory Setting

The applicable federal, State, regional, and local regulatory framework is discussed below.

4.1.2.1 Federal Regulations

United States Department of Agriculture - Natural Resource Conservation Service. The United States Department of Agriculture's Natural Resource Conservation Service (NRCS) was originally established by Congress in 1935 as the Soil Conservation Service (SCS). In 1994, SCS's name was

1 LSA. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February.

2 LSA. 2023a. Land Evaluation and Site Assessment Model (LESA Model) for the Tract Map (TM) 6343 Project. August 22.

3 City of Clovis. 2014. General Plan and Development Code Update PEIR. Agriculture and Forestry Resources. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-02-Agriculture-and-Forestry-Resources.pdf (accessed April 2023).

4 A petition for the cancellation of the Williamson Act Contract for APN 556-030-14S is currently in progress, pursuant to conditions set forth in Government Code (GC) § 51280 et seq.

5 United States Department of Agriculture. 2021. National Agriculture Statistics Service. CropScape-Cropland Data Layer. Website: https://nassgeodata.gmu.edu/CropScape/ (accessed April 2023).

changed to the Natural Resources Conservation Service to better reflect the broadened scope of the agency's concerns.

The Natural Resources Conservation Service (NRCS) Soil Survey Division is the lead agency for the National Cooperative Soil Survey (NCSS), a joint effort of Federal and State agencies, universities, and professional societies. The NRCS Soil Survey Division maps and describes soils by land area, such as a City or county, which are compiled into a document called a "Soil Survey." The soil surveys contain information about each soil including the acreage and extent of each soil type in a given area, its classification, its physical and chemical properties, its land capability classification (LCC) and the Storie Index.

Land Capability Classification. The LCC indicates the suitability of soils for most kinds of crops. Groupings are made according to the limitations of the soils when used to grow crops and the risk of damage to soils when they are used in agriculture. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receive the highest rating (Class I) (refer to Table 4.1.A). Specific subclasses are also utilized to further characterize soils. Capability subclasses are designated by adding a letter (i.e., e, w, s or c) to the class number (refer to Table 4.1.B). For example, the letter e indicates that the main limitation of the soil being erosion unless close-growing plant cover is maintained; w indicates that water in or on the soil interferes with plant growth or cultivation; s indicates that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some part of the United States, indicates that the chief limitation is climate that is very cold or very dry.[6]

Storie Index. The Storie Index provides a numeric rating (based upon a 100 point scale) of the relative degree of suitability or value of a given soil for intensive agriculture. The rating is based upon soil characteristics only. Four factors that represent the inherent characteristics and qualities of the soil are considered in the index rating. The factors are profile characteristics, texture of the surface layer, slope, and other factors (e.g., drainage, salinity).[7] [8]

4.1.2.2 State Regulations

California Department of Conservation Farmland Mapping and Monitoring Program. In 1982, the Department of Conservation (DOC) began coordinating with the United States Department of Agriculture (USDA) Soil Conservation Service in the preparation and completion of Important Farmland mapping for California through the establishment of the Farmland Mapping and Monitoring Program (FMMP). The FMMP created a greater level of mapping compared to the USDA Soil Conservation Service by modifying the federal criteria for use in California and incorporating

---

6 Klingebiel, A.A. (Albert Arnold), and P.H. (Paul Hooper) Montgomery. 1961. Land-Capability Classification. *Agricultural Handbook No. 210*. Soil Conservation Service, U.S. Department of Agriculture. Website: https://naldc.nal.usda.gov/catalog/CAT10310193 (accessed May 2023).

7 Storie, R. 1932. *An index for rating the agricultural values of soils*. Bulletin 556. Berkeley: California Agricultural Experiment Station.

8 Storie, R. 1978. Storie index soil rating. Oakland: *University of California Division of Agricultural Sciences Special Publication* 3203.

Table 4.1.A: USDA Land Capability Classifications

United States Department of Agriculture Land Capability Classifications	
Class	**Definition**
Class I (1)	Soils have slight limitations that restrict their use.
Class II (2)	Soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.
Class III (3)	Soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.
Class IV (4)	Soils have very severe limitations that restrict the choice of plants or require very careful management, or both.
Class V (5)	Soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
Class VI (6)	Soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.
Class VII (7)	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.
Class VIII (8)	Soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for esthetic purposes.

Source: Soil Conservation Service, U.S. Department of Agriculture (1961).

Table 4.1.B: Land Capability Subclass Units

United States Department of Agriculture Land Capability Subclass Units	
Unit	**Definition**
e	Subclass e is made up of soils for which the susceptibility to erosion is the dominant problem or hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in this subclass.
w	Subclass w is made up of soils for which excess water is the dominant hazard or limitation affecting their use. Poor soil drainage, wetness, a high water table, and overflow are the factors that affect soils in this subclass
s	Subclass s is made up of soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content.
c	Subclass c is made up of soils for which the climate (the temperature or lack of moisture) is the major hazard or limitation affecting their use.

Source: Soil Conservation Service, U.S. Department of Agriculture (1961).

irrigation criteria for farmland significance. The primary purpose of the FMMP is to monitor the conversion of California's agricultural lands. The DOC Division of Land Resource Protection works with landowners, local governments, and researchers to conserve California's farmland and open space resources based on information provided in the FMMP.

The DOC FMMP produces maps and statistical data used for analyzing impacts on agricultural resources. Agricultural land is categorized according to soil quality and irrigation status. The maps are updated every 2 years through review of aerial photographs, a computer mapping system,

public review, and field reconnaissance. The latest countywide data available are for the period from 2014 to 2016. The FMMP categories are defined as follows:

- **Prime Farmland.** The best combination of physical and chemical features and able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Farmland of Statewide Importance.** Similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Unique Farmland.** Lesser-quality soils used for production of the state's leading agricultural crops. This land is usually irrigated but may include nonirrigated orchards or vineyards. Land must have been cultivated at some time during the four years prior to the mapping date.

- **Farmland of Local Importance.** Land of importance to the local economy, as defined by each county's local advisory committee and adopted by its board of supervisors. In Fresno County, this refers to all farmable lands in the county that do not meet the definitions of Prime, Statewide, or Unique. This includes land that is or has been used for irrigated pasture, dryland farming, confined livestock and dairy, poultry facilities, aquaculture, and grazing land.

- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

- **Urban and Built Up Land.** Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

- **Other Land.** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation (Williamson) Act. The California Land Conservation Act, better known as the Williamson Act, has been the State's most important agricultural land protection program since its enactment in 1965. Fundamentally, the Williamson Act is a State policy administered by local governments. Local governments are not mandated to administer the act, but those that do have some latitude to tailor the program to suit local goals and objectives.

Williamson Act contracts have a minimum term of 10 years, with renewal occurring automatically each year (local governments can establish initial contract terms for longer periods of time). The contracts run with the land and are binding on all successors in interest of the landowner. Only land located within an agricultural preserve is eligible for Williamson Act contracts. An agricultural preserve defines the boundary of an area within which a city or county would enter into contracts with landowners. The boundary is designated by resolution of the board of supervisors or city council having jurisdiction. The rules of each agricultural preserve specify the uses allowed. Generally, any commercial agricultural uses would be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted with a use permit.

California Environmental Quality Act. The California State Legislature adopted CEQA in 1970 to identify, protect, and minimize impacts to the State's environmental resources. CEQA is codified as Section 21000 of the State's Public Resources Code. CEQA vests the primary responsibility of carrying out its objectives to local municipalities. In determining whether a proposed project may have a significant effect on agricultural resources, the City of Clovis uses the thresholds provided in Appendix G of the CEQA Guidelines. **Public Resources Code 21095 - California Agricultural Land Evaluation and Site Assessment Model.** LESA is a term used to define an approach for rating the relative quality of agricultural land based upon specific measurable features. The formulation of a California LESA Model is the result of Senate Bill 850 (Chapter 812/1993), which charges the Resource Agency (in consultation with the Governor's Office of Planning and Research) with developing an amendment to Appendix G of the *State CEQA Guidelines* concerning agricultural lands. Such an amendment is intended "to provide lead agencies with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process" (Public Resources Code Section 21095).

A LESA analysis is based on the following definition of agricultural land contained in CEQA, Public Resources Code Section 21060.1:

> *21060.1 (a) "Agricultural land" means prime farmland, farmland of statewide importance, or unique farmlands, as defined by the United States Department of Agriculture land inventory and monitoring criteria as modified for California.*
>
> *21060.1 (b) In those areas of the state where lands have not been surveyed for the classifications specific in subdivision (a), "agricultural land" means land that meets the requirement of "prime agricultural land" as defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code [the Williamson Act].*

Public Resources Code 12220 (g) – Forest Land. "Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Public Resources Code 4526 - Timberland. "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and

other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

Public Resources Code 51104 (g) – Timberland Production Zone. "Timberland production zone" or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

California Civil Code 3482.5 – "Right-to-Farm" Law. No agricultural activity, operation, or facility, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after it has been in operation for more than three years if it was not a nuisance at the time it began.

4.1.2.3 Regional Regulations

Fresno County Ordinance Code §17.04.100 – Right-to-farm notice. If a subdivision is at any point within three hundred feet of an AE (Exclusive Agriculture), AL (Limited Agriculture), TPZ (Timberland Preserve) or RC (Resource Conservation) Zone District, the approval of the tentative and final subdivision map shall be conditional upon the recordation with the Fresno County recorder of a notice in substantially the following form:

> *FRESNO COUNTY RIGHT-TO-FARM NOTICE*
>
> *It is the declared policy of Fresno County to preserve, protect, and encourage development of its agricultural land and industries for the production of food and other agricultural products. Residents of property in or near agricultural districts should be prepared to accept the inconveniences and discomfort associated with normal farm activities. Consistent with this policy, California Civil Code 3482.5 (right-to-fate law) provides that an agricultural pursuit, as defined, maintained for commercial uses shall not be or become a nuisance due to a changed condition in a locality after such agricultural pursuit has been in operation for three years.*

4.1.2.4 Local Regulations

City of Clovis General Plan. The City of Clovis General Plan is the official policy statement of the City Council to guide private and public development of the City, as well as the City's own operations and decisions. The General Plan helps to ensure that land use decisions are in conformance with the long-range program designed to protect and further the public interest related to the City of Clovis' growth and development. Table 4.1.C lists the City of Clovis General Plan policies related to agricultural resources.

Table 4.1.C: City of Clovis General Plan Policies Related to Agricultural Resources

Policy/Action Item Number	Policy/Action Item
Open Space and Conservation Element	
Policy 2.1	**Stewardship.** Promote responsible planning and management of land and resources among property owners.
Policy 2.4	**Agricultural lands.** Preserve the city's agricultural legacy through the Agricultural land use designation, memorialize agricultural history and culture, and facilitate thoughtful conversion of lands to development.
Policy 2.5	**Right to farm.** Support, encourage, and protect agricultural operations within Clovis and recognize their right to farm.
Policy 2.8	**Urban forest.** Maintain and enhance a diverse and healthy urban forest on public and private lands.

Source: City of Clovis General Plan (August 2014).

4.1.3 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to agricultural resources that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds to determine if an impact is significant. The latter part of this section presents the impacts associated with implementation of the proposed project and the recommended mitigation measures. Mitigation measures are recommended, as appropriate, for significant impacts to eliminate or reduce them to a less-than-significant level. Cumulative impacts are also addressed. A brief discussion about why a detailed analysis of potential impacts to forestry resources is not included in this section is also included below.

4.1.3.1 Significance Criteria

Based on *State CEQA Guidelines* Appendix G, the proposed project would have a significant impact on agricultural resources if it would:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract; or

c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

4.1.3.2 Project Impacts

The following discussion describes the potential impacts related to agricultural resources that could result from implementation of the proposed project.

a. **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use**

The project site is approximately 71.54 acres in size, contains one rural residence that occupies approximately 1.6 acres, and is being used for agriculture. The agricultural crops that have been historically grown on the project site include pistachios, almonds, wheat, cotton, grapes, and oranges.[9] In 2022, a Farmland Impact Assessment was prepared for the Heritage Grove SB 2 Grant Technical Studies Project[10] and potential impacts to Important Farmland in the Heritage Grove area of Clovis were assessed. The Heritage Grove Farmland Impact Assessment included the TM 6343 project site. Table 4.1.D contains the total acreage of Farmland as designated by the FMMP that would be directly impacted by the development of the Heritage Grove Study Area, as assessed by the Farmland Impact Assessment.

Table 4.1.D: Farmland Mapping and Monitoring Program Farmland Designations in the Heritage Grove Study Area

FMMP Designations	Acres in Heritage Grove Study Area
Prime Farmland	745.0
Farmland of Statewide Importance	84.6
Unique Farmland	252.7
Farmland of Local Importance	352.0
Total	**1,434.2**

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2018 Fresno County. Website: https://gis.conservation.ca.gov/portal/home/group.html?id=b1494c705cb34d01acf78f4927a75b8f#overview (accessed October 26, 2021).
FMMP = Farmland Mapping and Monitoring Program

As shown in Table 4.1.D, The FMMP identifies approximately 1,434.2 acres of farmland within the Heritage Grove Study Area. Additionally, the Heritage Grove Farmland Impact Assessment confirmed through the preparation of a LESA Model that conversion of farmland in the Heritage Grove Area would be a significant impact.

According to the FMMP, 1.15 acres of the project site is designated as Prime Farmland, 3.41 acres is designated as Farmland of Statewide Importance, 35.40 acres is designated as Unique Farmland, and 31.56 acres is designated as Farmland of Local Importance.[11] To narrow down potential project-level impacts to agricultural resources, comply with General Plan resource evaluation requirements for projects that would convert farmland, and determine the significance of conversion of Important Farmland (i.e., prime farmland, farmland of statewide importance, or unique farmlands) within the

[9] United States Department of Agriculture. 2021. National Agriculture Statistics Service. CropScape-Cropland Data Layer. Website: https://nassgeodata.gmu.edu/CropScape/ (accessed April 2023).

[10] LSA. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February.

[11] LSA. 2023a. Land Evaluation and Site Assessment Model (LESA Model) for the Tract Map (TM) 6343 Project. August 22.

project site boundaries to non-agricultural uses, a California LESA Model was prepared for the project site.

The LESA Model is composed of a Land Evaluation (LE) portion, which measures soil quality, and the Site Assessment (SA) portion, which evaluates other factors that contribute to the project site's agricultural importance (e.g., parcel size and on-farm investments). The final LESA score for the project site is provided below in Table 4.1.E.

Table 4.1.E: Land Evaluation and Site Assessment Scoring for TM 6343 Project

Factor Name	Factor Rating (0-100 Points)	×	Factor Weighting (Total = 1.00)	=	Weighted Factor Rating
Land Evaluation					
1. Land Capability Classification	40	×	0.25	=	10
2. Storie Index Rating	61.09	×	0.25	=	15.27
Land Evaluation (LE) Subscore					**25.27**
Site Assessment					
1. Project Size	20	×	0.15	=	3
2. Water Resource Availability	20	×	0.15	=	3
3. Surrounding Agricultural Land	90	×	0.15	=	13.5
4. Protected Resource Lands	0	×	0.05	=	0
Site Assessment (SA) Subscore					**19.5**
Total LESA Score (LE + SA)					**44.77**

Source: Land Evaluation and Site Assessment Model (LESA Model) for the Tract Map (TM) 6343 Project (LSA. 2023a).

A Final LESA Score of 0 to 39 points is not considered significant. A final score between 40 to 59 points is considered significant only if the LE and SA subscores are each greater than or equal to 20 points. A final score between 60 to 79 points is considered significant unless either the LE or SA subscores is less than 20 points. A final score between 80 to 100 points is considered significant.

The proposed project achieved a Final LESA Score of 44.77 points, with an LE subscore of 25.27 points, and SA subscore of 19.5 points. Because the SA subscore was below 20 points, the LESA Model concluded that the conversion of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance associated with implementation of the proposed project would not be considered significant and would not represent a significant impact to agricultural resources under CEQA.

The City's General Plan EIR included Mitigation Measure 2-3, described below, to address the conversion of agricultural land in the City:

Mitigation Measure 2-3 Pending adoption of a regional agricultural preservation program or local FFP, or if a regional agricultural preservation program or local FFP is not in place by June 25, 2017, the following requirements shall apply:

1) Project applicants for properties that include more than 20 acres designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland shall prepare or fund an agricultural resource evaluation prior to project approval.

2) The resource evaluation shall use generally accepted methodologies (such as the Land Evaluation and Site Assessment Model) to identify the potentially significant impact of the loss of agricultural land.

3) If the loss of agricultural land is determined to be a potentially significant impact, the resource evaluation shall consider the economic viability of future agricultural use of the property.

4) If the agricultural resource is considered significant (based on LESA or other accepted methodology) and future agricultural use is considered economically viable, the conversion will be deemed significant, the City shall require mitigation by one of the following methods:

    a) Mitigation at a 1:1 ratio of converted to preserved acreage through a regional conservation easement, or payment of its valuation equivalent if a fee mitigation program is established. If 1:1 mitigation is determined to be economically infeasible, based upon all of the evidence, the ratio may be reduced to an economically feasible ratio or no further mitigation shall be required. This determination shall be made by the City's Director of Planning and Development Services based upon substantial evidence in the record; or

    b) Other potential mitigation which achieves the same mitigating effect as the measures identified above, consistent with the CEQA Statutes and Guidelines. This determination shall be made by the City's Director of Planning and Development Services based upon substantial evidence in the record.

Development of the project site would result in the conversion of Important Farmland delineated on the latest California Department of Conservation maps[12] to non-agricultural uses. Pursuant to the General Plan Mitigation Measure 2-3, the project site has been evaluated through the preparation of a site specific LESA that identified that conversion of farmland associated with the project would

[12] LSA. 2023a. Land Evaluation and Site Assessment Model (LESA Model) for the Tract Map (TM) 6343 Project. August 22.

not result in a significant impact. As such, General Plan Mitigation Measure 2-3 requirements have been fulfilled. Impacts associated with future development of the project site and the conversion of Important Farmland to non-agricultural use would be less than significant.

Impact AG-1: The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Level of Significance Without Mitigation: Less Than Significant Impact.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is currently zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. This district is intended to protect the welfare of the agricultural community of the county from encroachment of non-related uses of the land that could be detrimental to the agricultural community's physical and economic well-being. As previously discussed, the project site is located within the Heritage Grove Area. The City of Clovis has identified Heritage Grove for development, and as such plans on annexing land within Heritage Grove into the City of Clovis. Once annexation has been completed, the parcels within the Heritage Grove Area will be zoned in accordance with the Chapter 9.08, Zoning District, of the Municipal Code and designated land uses for the Heritage Grove parcels will be established as outlined in the City's General Plan. The designated land use for the project site, according to the City of Clovis General Plan, includes Medium Density Residential.[13] Once the project site and the remaining Heritage Grove Area are annexed to the City, there will be no parcels zoned for agricultural use at the project site and vicinity. As such, future development occurring in the project site would not conflict with agricultural zoning. This impact would be less than significant.

Assessor's Parcel Number 556-030-014S on the project site is currently under a Williamson Act contract. The proposed project would include the construction of a 590-unit residential development, which is not a compatible use for land under a Williamson Act contract.[14][15] As APN 556-030-014S is identified for development pursuant to the General Plan, a Williamson Act cancellation process for the parcel would take place prior to issuance of building permits for the proposed project. As such, Mitigation Measure AG-2 would be implemented to ensure compliance with the required procedure for cancellation of the Williamson Act contract at APN 556-030-014S. With implementation of Mitigation Measure AG-2, by the time project development begins at the project site, there would be no parcels within the project site under a Williamson Act contract. Therefore, the proposed project would not conflict with zoning for agriculture or a Williamson Act contract, and the impact would be less than significant with mitigation.

---

13 City of Clovis. 2014. General Plan. Land Use Element. Figure LU-2: Land Use Diagram. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Figure-LU-2.pdf. (accessed April 2023).

14 California Government Code of the State of California Sections 51201, 51231, 51238 or 51238.1.

15 County of Fresno. 2013. Board Briefing Report, *Status Report Regarding Administration of the Williamson Act Program*, Alan Weaver, Director Department of Public Works and Planning. February 21, 2013.

Impact AG-2: The project would conflict with existing zoning for agricultural use or a Williamson Act contract.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measure AG-2 Prior to issuance of building permits, the Project Applicant would need to petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the Fresno County Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.

Level of Significance With Mitigation**:** Less than Significant with implementation of Mitigation Measure AG-2.

c. **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

The proposed project would result in the construction of 590 residential units in the project site. Currently, there are some parcels directly west and south of the project site, across the Enterprise Canal, and north of the project site, across East Behymer Avenue, that have existing agricultural operations. As such, development of the proposed project could result in land use compatibility issues with adjacent uses. However, as discussed in the Farmland Impact Assessment[16], the project site and these adjacent parcels are located within the Heritage Grove area, and are anticipated to be annexed into the City and converted to non-agricultural land as the City of Clovis builds out pursuant to the General Plan. Such conversion would not be driven by development within the project site. Furthermore, the City would require a separate environmental review for other projects considering such actions. Therefore, incompatibility between agricultural designations and surrounding designations would not drive the conversion of farmland to non-agricultural use.

[16] LSA. 2022. Farmland Impact Assessment Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February.

However, given that development within the Heritage Grove area would be phased over time, it is possible that once the proposed project is constructed, some adjacent agricultural uses would continue to operate until other projects occupying these parcels are approved. Agricultural operations adjacent to residential uses could be subject to nuisance complaints from neighboring residents and, if escalation to nuisance lawsuits occur, this would create conflict that would hinder continuing agricultural operations at these locations. The City's General Plan contains policies to aid in the preservation of agricultural land, including Policies 2.4 and 2.5 of the General Plan's Open Space and Conservation Element, pursuant to Fresno County Ordinance Code §17.04.100 and the California Civil Code 3482.5. Regulatory Compliance Measure AG-3 would be implemented to ensure notification of Right-To Farm to future residents of the project site, such that residents would be prepared to accept inconveniences and discomfort associated with normal farm activities in parcels adjacent to the project site. Issuance of Right-to-Farm notifications would prevent agricultural operations from being the subject of nuisance complaints and being forced to cease or curtail operations. As such, implementation of the proposed project would not influence the conversion of farmland to non-agricultural uses and impacts associated with changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use would be less than significant.

Impact AG-3: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Level of Significance Without Mitigation: Less Than Significant Impact. No mitigation is required. The following regulatory compliance measure pertaining to issuance of Right-to-Farm notifications is applicable to the proposed project.

Regulatory Compliance Measure AG-3 Pursuant to California Civil Code 3482.5 and Fresno County Ordinance Code §17.04.100, prior approval of building occupancy permits, the Project Applicant shall provide residents of the project site Right-To-Farm notifications. The Right-To-Farm notification would advise future occupants of the project site that they are residing adjacent to agricultural land that has been active for 3 or more years and that they should expect continued activities associated with agricultural production. The Right-to-Farm notice shall include the following:

- *It is the declared policy of Fresno County to preserve, protect, and encourage development of its agricultural land and industries for the production of food and other agricultural products. Residents of property in or near agricultural districts or agriculturally zoned land or active agricultural land should be prepared to accept the inconveniences and discomfort associated with normal farm activities. Such inconveniences and*

discomfort could include but is not limited to the following: Dust generation, heavy equipment operation, noise from heavy equipment operation, dust cropping activity using aircraft, insecticide/pesticide application, no trespassing signage posted on active agricultural land, and the use of crop warmers during cold nights. Consistent with California Civil Code 3482.5 (right-to-farm law), this Right-To- Farm notification provides that an agricultural pursuit, as defined, maintained for commercial uses shall not be or become a nuisance to adjacent land occupied by non-agricultural uses due to a changed condition in a locality after such agricultural pursuit has been in operation for three years.

Level of Significance With Mitigation: Less Than Significant Impact. Implementation of Regulatory Compliance Measure AG-3 would further reduce project-related impacts to a less than significant level.

4.1.3.3 Forestry Resources.

Appendix G of the *State CEQA Guidelines* usually groups analysis for agricultural and forestry resources. However, the Initial Study (included in Appendix A) prepared for this EIR discussed potential impacts on forestry resources resulting from the proposed project. Significance criteria used to evaluate impacts on forestry resources was based on *State CEQA Guidelines* Appendix G and determined that the proposed project would have a significant impact on forestry resources if it would:

a. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))

b. Result in the loss of forest land or conversion of forest land to non-forest use

c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

As described in the Initial Study, the project site is not currently used for timberland production, nor is it zoned for forest land or timberland or is in the vicinity of forest lands or timberland. Additionally, the project site is zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. Therefore, the proposed project would have no impact on forest land or timberland. As such, this topic will not be further discussed in this section of the EIR.

4.1.3.4 Cumulative Impacts

The proposed project would have a significant effect on the environment if – in combination with other projects – it would contribute to a significant cumulative impact related to agriculture. The cumulative impact area is the County of Fresno, which contains lands identified as Important Farmland.

Development of the proposed project would result in the construction of approximately 590 residential units in the project site, which would convert an existing agricultural use to a non-agricultural use. As discussed above, the proposed project is within the Heritage Grove Area, formerly known as Northwest Urban Center, which has been designated for development in the City's General Plan. Although the proposed project would result in the conversion of agricultural resources to non-agricultural uses, because the General Plan has identified that buildout of the General Plan would result in the conversion of agricultural uses to non-agricultural uses, the project would not result in additional impacts that were not previously identified in the General Plan. Additionally, pursuant to Mitigation Measure 2-3 from the General Plan EIR, a site-specific LESA Model was prepared for the project. The site-specific LESA Model determined that conversion of agricultural land associated with the project would be a less than significant impact. As such, requirements of Mitigation Measure 2-3 were fulfilled and the proposed project would not result in new impacts related to the conversion of agricultural land that had not been identified in a previous environmental assessment document.

The City's General Plan EIR identifies that buildout of the General Plan would result in cancellation and nonrenewal of contracts on Prime Agricultural Lands where the land use designation is changed to a nonagricultural or agriculture-incompatible use. Given that the public policy of protecting farmland is embodied in the Williamson Act, the nonrenewal or cancellation of additional lands bearing these contracts to nonagricultural or incompatible uses would be a significant impact. The project site contains APN 556-030-014S, which is currently under a Williamson Act contract. Although the proposed project includes uses not compatible with land under a Williamson Act contract, as the project site is designated for development in the General Plan, cancellation of the contract would take place prior to building permits for the project. Mitigation Measure AG-2 would be implemented to ensure compliance with the required procedure for cancellation of the Williamson Act contract at APN 556-030-014S. Although the cancellation of the Williamson Act contract at APN 556-030-014S would contribute to a significant cumulative impact related to conversion of agricultural land to non-agricultural uses, this impact has already been identified as significant and unavoidable in the General Plan EIR. As such, the proposed project would not result in new impacts related to the conversion of agricultural land that had not been identified in a previous environmental assessment document.

Finally, the project is within the Heritage Grove area, which is marked for development in the City's General Plan. As such, development within the project site would not directly drive the conversion of adjacent agricultural operations to non-agricultural uses. Furthermore, to avoid conflicts between adjacent agricultural operations and residents of the project site throughout the phased buildout of the Heritage Grove area, the project would implement Regulatory Compliance Measure AG-3, which requires notification of Right-to-Farm to future residents of the site to prevent agricultural operations from being the subject of nuisance complaints and being forced to cease or curtail

operations. Therefore, implementation of the proposed project would not drive the conversion of farmland to non-agricultural uses.

Cumulative development located within the City of Clovis and immediately adjacent jurisdictions, such as development that would occur within the City of Fresno and Fresno County, is anticipated to convert agricultural uses to non-agricultural uses, as well as conflict with existing agricultural zoning and Williamson Act contracts. The General Plan EIR has identified that planned development pursuant to the General Plan, which includes the proposed project, would contribute to significant and unavoidable impacts related to conversion of farmland and cancellation of Williamson Act contracts. As a result, the project would not result in new contributions to significant cumulative impacts to agricultural resources.

Impact AG-4: The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to agricultural resources.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measures: Refer to Mitigation Measure AG-2 and Regulatory Compliance Measure AG-3 above.

Level of Significance With Mitigation: Less Than Significant Impact. The project would contribute to cumulative impacts related to conversion of farmland through development of agricultural land uses to non-agricultural uses and cancellation of a Williamson Act contract, which is a public policy meant to protect farmland from conversion. However, the City of Clovis General Plan EIR previously identified that conversion of farmland and cancellation of Williamson Act contracts resulting from development of the General Plan would result in significant and unavoidable impacts. As such, the project would not result in new significant impacts that would contribute to cumulative impacts to agricultural resources.

4.2 AIR QUALITY

This section has been prepared using the methodologies and assumptions contained in the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). This section describes existing air quality and the regulatory framework for air quality. The section also describes the potential air quality effects of the proposed project, including the effects of construction and operational traffic on regional pollutant levels and health risks. The analysis in this section is based on the California Emissions Estimator Model version 2022.1 (CalEEMod) and the findings of a construction health risk assessment (Appendix D and E, respectively).

4.2.1 Environmental Setting

The following discussion provides an overview of existing air quality conditions in the region and in the City of Clovis. Ambient air quality standards and the regulatory framework are summarized and climate, air quality conditions, and typical air pollutant types and sources are also described.

4.2.1.1 Project Area

The project site is located on the City of Clovis, in the San Joaquin Valley Air Basin (SJVAB). The SJVAB consists of Tulare, Kings, Madera, San Joaquin, Merced, Stanislaus, and Fresno counties, as well as a portion of Kern County. The local agency with jurisdiction over air quality in the SJVAB is the San Joaquin Valley Air Pollution Control District (SJVAPCD). Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season.

4.2.1.2 Air Pollutants and Health Effects

Both State and federal governments have established health-based ambient air quality standards for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and Pb are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the City are O_3, CO, and suspended particulate matter. Significance thresholds established by an air quality district are used to manage total regional and local emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual development projects that would contribute to regional and local emissions and could adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

Because of the conservative nature of the significance thresholds, and the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds

are those with regional effects, such as ozone precursors like nitrogen oxides (NO_X) and reactive organic gases (ROG).

Further, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, the air quality districts have considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

Air pollutants and their health effects, and other air pollution-related considerations are summarized in Table 4.2.A and are described in more detail below.

Ozone. Ozone (O_3) is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_X. The main sources of ROG and NO_x, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are typically the largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide. CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO transport is limited – it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

Table 4.2.A: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	● Precursor sources:[1] motor vehicles, industrial emissions, and consumer products.	● Respiratory symptoms. ● Worsening of lung disease leading to premature death. ● Damage to lung tissue. ● Crop, forest, and ecosystem damage. ● Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.
Particulate Matter Less than 2.5 Microns in Diameter ($PM_{2.5}$)	● Cars and trucks (especially diesels). ● Fireplaces, woodstoves. ● Windblown dust from roadways, agriculture, and construction.	● Premature death. ● Hospitalization for worsening of cardiovascular disease. ● Hospitalization for respiratory disease. ● Asthma-related emergency room visits. ● Increased symptoms, increased inhaler usage.
Particulate Matter Less than 10 Microns in Diameter (PM_{10})	● Cars and trucks (especially diesels). ● Fireplaces, woodstoves. ● Windblown dust from roadways, agriculture, and construction.	● Premature death and hospitalization, primarily for worsening of respiratory disease. ● Reduced visibility and material soiling.
Nitrogen Oxides (NO_X)	● Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	● Lung irritation. ● Enhanced allergic responses.
Carbon Monoxide (CO)	● Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	● Chest pain in patients with heart disease. ● Headache. ● Light-headedness. ● Reduced mental alertness.
Sulfur Oxides (SO_X)	● Combustion of sulfur-containing fossil fuels. ● Smelting of sulfur-bearing metal ores. ● Industrial processes.	● Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits.
Lead (Pb)	● Contaminated soil.	● Impaired mental functioning in children. ● Learning disabilities in children. ● Brain and kidney damage.
Toxic Air Contaminants (TACs)	● Cars and trucks (especially diesels). ● Industrial sources, such as chrome platers. ● Neighborhood businesses, such as dry cleaners and service stations. ● Building materials and products.	● Cancer. ● Reproductive and developmental effects. ● Neurological effects.

Source: California Air Resources Board (2018).

[1] Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

Particulate Matter. Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from human-made and natural sources. Particulate matter is categorized in two size ranges: PM_{10}, for particles less than 10 microns in diameter, and $PM_{2.5}$, for particles less than 2.5 microns in diameter. Motor vehicles are the primary generators of particulates, through tailpipe emissions as well as brake pad, tire wear, and entrained road dust. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According

to the California Air Resources Board (CARB), studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks, and studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function growth in children.[1] Statewide attainment of particulate matter standards could reduce premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

Nitrogen Dioxide. NO_2 is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide. SO_2 is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO_2 also reduces visibility and the level of sunlight at the ground surface.

Lead. Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the United States Environmental Protection Agency (USEPA) established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of USEPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

Toxic Air Contaminants. In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. Some examples of TACs include: benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

TACs do not have ambient air quality standards, but are regulated by the USEPA, CARB, and the SJVAPCD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The

[1] California Air Resources Board (CARB). 2020. *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10})*. Website: ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health (accessed September 2022).

CARB has completed a risk management process that identified potential cancer risks for a range of activities and land uses that are characterized by use of diesel-fueled engines.[2] High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily "off-road" sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways.

The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel—a step already implemented—and cleaner-burning diesel engines.[3] The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions.

High Volume Roadways. Air pollutant exposures and their associated health burdens vary considerably within places in relation to sources of air pollution. Motor vehicle traffic is perhaps the most important source of intra-urban spatial variation in air pollution concentrations. Air quality research consistently demonstrates that pollutant levels are substantially higher near freeways and busy roadways, and human health studies have consistently demonstrated that children living within 100 to 200 meters (328 to 656 feet) of freeways or busy roadways have reduced lung function and higher rates of respiratory disease. At present, it is not possible to attribute the effects of roadway proximity on non-cancer health effects to one or more specific vehicle types or vehicle pollutants. Engine exhaust, from diesel, gasoline, and other combustion engines, is a complex mixture of particles and gases, with collective and individual toxicological characteristics.

Valley Fever. Valley fever is a fungal infection caused by coccidioides organisms. It can cause fever, chest pain and coughing, among other signs and symptoms. The coccidioides species of fungi that cause valley fever are commonly found in the soil in certain areas. These fungi can be stirred into the air by anything that disrupts the soil, such as farming, construction and wind. The fungi can then be breathed into the lungs and cause valley fever, also known as acute coccidioidomycosis. A mild case of valley fever usually goes away on its own. In more severe cases of valley fever, doctors prescribe antifungal medications that can treat the underlying infection. Valley Fever is not contagious and therefore does not spread from person to person. Most cases (approximately 60

[2] CARB. 2000a. *Fact Sheet – California's Plan to Reduce Diesel Particulate Matter Emissions*. October. Website: www.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf (accessed September 2022).

[3] CARB. 2000b. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website: www.arb.ca.gov/diesel/documents/rrpFinal.pdf (accessed September 2022).

percent) have no symptoms or only very mild flu-like symptoms and do not see a doctor. When symptoms are present, the most common are fatigue, cough, fever, profuse sweating at night, loss of appetite, chest pain, generalized muscle and joint aches particularly of the ankles and knees. There may also be a rash that resembles measles or hives but develops more often as tender red bumps on the shins or forearms.

4.2.1.3 National and State Ambient Air Quality Standards

Both State and federal governments have established health-based ambient air quality standards for criteria air pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both the USEPA and the CARB have established ambient air quality standards for the following common pollutants: CO, O_3, NO_2, SO_2, Pb, and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. These ambient air quality standards are levels of contaminants that avoid specific adverse health effects associated with each pollutant.

Federal standards include both primary and secondary standards. Primary standards establish limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings. State and federal standards for the criteria air pollutants are listed in Table 4.2.B.

4.2.1.4 Existing Climate and Air Quality

The following provides a discussion of the local and regional air quality and climate in the project area.

Regional and Local Air Quality. Air quality is a function of both local climate and local sources of air pollution. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunshine.

The project site is located within the SJVAB and is under the jurisdiction of the SJVAPCD. A region's topographic features have a direct correlation with air pollution flow and therefore are used to determine the boundary of air basins. The SJVAB is comprised of approximately 25,000 square miles and covers of eight counties including Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare, and the western portion of Kern. The SJVAB is defined by the Sierra Nevada mountains in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay.

Table 4.2.B: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]		Federal Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary[c,f]	Method[g]
Ozone (O3)[h]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[i]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter (PM2.5)[i]	24-Hour	-		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m³)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO2)[j]	Annual Arithmetic Mean	0.03 ppm (57 µg/m³)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m³)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m³)		100 ppb (188 µg/m³)	-	
Lead (Pb)[l,m]	30-Day Average	1.5 µg/m³	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³ (for certain areas)[l]	Same as Primary Standard	
	Rolling 3-Month Average[i]	–		0.15 µg/m³		
Sulfur Dioxide (SO2)[k]	24-Hour	0.04 ppm (105 µg/m³)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m³)	
	1-Hour	0.25 ppm (655 µg/m³)		75 ppb (196 µg/m³)[k]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[k]	–	
Visibility-Reducing Particles[l]	8-Hour	See footnote n	Beta Attenuation and Transmittance through Filter Tape.	No Federal Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[j]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: California Air Resources Board (2016).
Footnotes are provided on the following page.

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[j] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[k] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[l] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, the CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
µg/m^3 = micrograms per cubic meter
CARB = California Air Resources Board
mg/m^3 = milligrams per cubic meter
ppb = parts per billion
ppm = parts per million
USEPA = United States Environmental Protection Agency

An aerial view of the SJVAB would simulate a "bowl" opening only to the north. These topographic features restrict air movement through and out of the basin.

Although marine air generally flows into the basin from the San Joaquin River Delta, the Coast Range hinders wind access into the SJVAB from the west, the Tehachapi Mountains prevent southerly passage of air flow, and the high Sierra Nevada range is a significant barrier to the east. These topographic features result in weak air flow which becomes blocked vertically by high barometric pressure over the SJVAB. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Most of the surrounding mountains are above the normal height of summer inversion layers (1,500 to 3,000 feet).

Local climatological effects, including wind speed and direction, temperature, inversion layers, precipitation and fog, can exacerbate the air quality in the SJVAB. Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing vertically and by transporting it to other locations. For example, in the summer, wind usually originates at the north end of the SJVAB and flows in a south-southeasterly direction through the SJVAB, through Tehachapi pass, into the Southeast Desert Air Basin. In the winter, wind direction is reversed and flows in a north-northwesterly direction. In addition to the seasonal wind flow, a sea breeze flows into SJVAB during the day and a land breeze flowing out of the SJVAB at night. The diversified wind flow enhances the pollutant transport capability within SJVAB.

The annual average temperature varies throughout the SJVAB, ranging from the low 40s to high 90s, measured in degrees Fahrenheit (°F). With a more pronounced valley influence, inland areas show more variability in annual minimum and maximum temperatures than coastal areas. The climatological station closest to the site is the Fresno Yosemite International Airport Station (043257). The monthly average maximum temperature recorded at this station from January 1948 to June 2016 ranged from 54.6°F in January to 98.3°F in July, with an annual average maximum of 76.5°F. The monthly average minimum temperature recorded at this station ranged from 35.3°F in December to 65.7°F in July, with an annual average minimum of 50.4F.[4] These levels are still representative of the project area. January and December are typically the coldest months and July is typically the warmest month in this area of the SJVAB.

The majority of annual rainfall in the SJVAB occurs between November and March. Summer rainfall is minimal and is generally limited to scattered thundershowers in desert regions and slightly heavier showers near the lower portion of the Basin and along the Sierra Nevada mountains to the east. Average monthly rainfall during that period varied from 0.01 inches in July and August to 2.09 inches in January, with an annual total of 10.89 inches.[5] Patterns in monthly and yearly rainfall totals are predictable due to the recognizable differences in seasons within the valley.

[4] Western Regional Climate Center. n.d. Fresno Yosemite International Airport (043257), Period of Record Monthly Climate Summary. Website: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3257 (accessed January 2023).

[5] Ibid.

The vertical dispersion of air pollutants in the SJVAB is limited by the presence of persistent temperature inversions. Because of cooling of the atmosphere, air temperature usually decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface, or at any height above the ground. The height of the base of the inversion is known as the "mixing height." This is the level within which pollutants can mix vertically. Air above and below the inversion base does not mix because of the differences in air density. Semi-permanent systems of high barometric pressure fronts frequently establish themselves over the SJVAB, preventing low pressure systems that might otherwise bring rain and winds that clean the air.

Inversion layers are significant in determining ozone formation, and CO and PM_{10} concentrations. Ozone and its precursors will mix and react to produce higher ozone concentrations under an inversion. The inversion will also simultaneously trap and hold directly emitted pollutants such as carbon monoxide. PM_{10} is both directly emitted and created in the atmosphere as a chemical reaction. Concentration levels of pollutants are directly related to inversion layers due to the limitation of mixing space.

Surface or radiation inversions are formed when the ground surface becomes cooler than the air above it during the night. The earth's surface goes through a radiative process on clear nights, where heat energy is transferred from the ground to a cooler night sky. As the earth's surface cools during the evening hours, the air directly above it also cools, while air higher up remains relatively warm. The inversion is destroyed when heat from the sun warms the ground, which in turn heats the lower layers of air; this heating stimulates the ground level air to float up through the inversion layer.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. Periods of low inversions and low wind speeds are conditions favorable to high concentrations of CO and PM_{10}. In the winter, the greatest pollution problems are CO and NO_x because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form photochemical smog.

Attainment Status. The USEPA and the CARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified."

National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or "form" of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring value exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the 3-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard. The current attainment designations for the basin are shown in Table 4.2.C.

Table 4.2.C: San Joaquin Valley Air Basin Air Quality Attainment Status

Pollutant	State	Federal
Ozone (1-hour)	Severe/Nonattainment	Not Applicable
Ozone (8-hour)	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard

Source: California Air Resources Board and USEPA (2023).

Air Quality Monitoring Results. Air quality monitoring stations are located throughout the nation and maintained by the local air pollution control district and state air quality regulating agencies. Ambient air data collected at permanent monitoring stations are used by the USEPA to identify regions as attainment or nonattainment depending on whether the regions met the requirements stated in the primary National Ambient Air Quality Standards (NAAQS). Attainment areas are required to maintain their status through moderate, yet effective air quality maintenance plans. Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment such as marginal, moderate, serious, severe, and extreme are used to classify each air basin in the state on a pollutant-by-pollutant basis. Different classifications have different mandated attainment dates and are used as guidelines to create air quality management strategies to improve air quality and comply with the NAAQS by the attainment date. A region is determined to be unclassified when the data collected from the air quality monitoring stations do not support a designation of attainment or nonattainment, due to lack of information, or a conclusion cannot be made with the available data.

The SJVAPCD, together with CARB, maintains ambient air quality monitoring stations in the SJVAB. The air quality monitoring stations closest to the project area are 908 N. Villa Avenue in Clovis and 3727 N. First Street in Fresno, California.

Pollutant monitoring results for years 2019 to 2021 at the Clovis and Fresno monitoring stations, shown in Table 4.2.D indicate that air quality in the vicinity of the City has generally been moderate.

As indicated in the monitoring results, the federal PM_{10} standard was exceeded one time in 2020 only. The State PM_{10} standard was exceeded 11 times in 2019, 114 times in 2020, and 111 times in 2021. $PM_{2.5}$ levels exceeded the federal standard 1 time in 2019, 40 times in 2020, and 22 times in 2021. The State 1-hour ozone standards were exceeded 6 times in 2019, 12 times in 2020, and 9 times in 2021. The State 8-hour ozone standards were exceeded 30 times in 2019, 41 times in 2020, and 37 times in 2021. The federal 8-hour standards were exceeded 27 times in 2019, 36 times in 2020, and 34 times in 2021. The CO, SO_2, and NO_2 standards were also not exceeded in this area during the 3-year period.

Table 4.2.D: Ambient Air Quality at Nearby Monitoring Stations

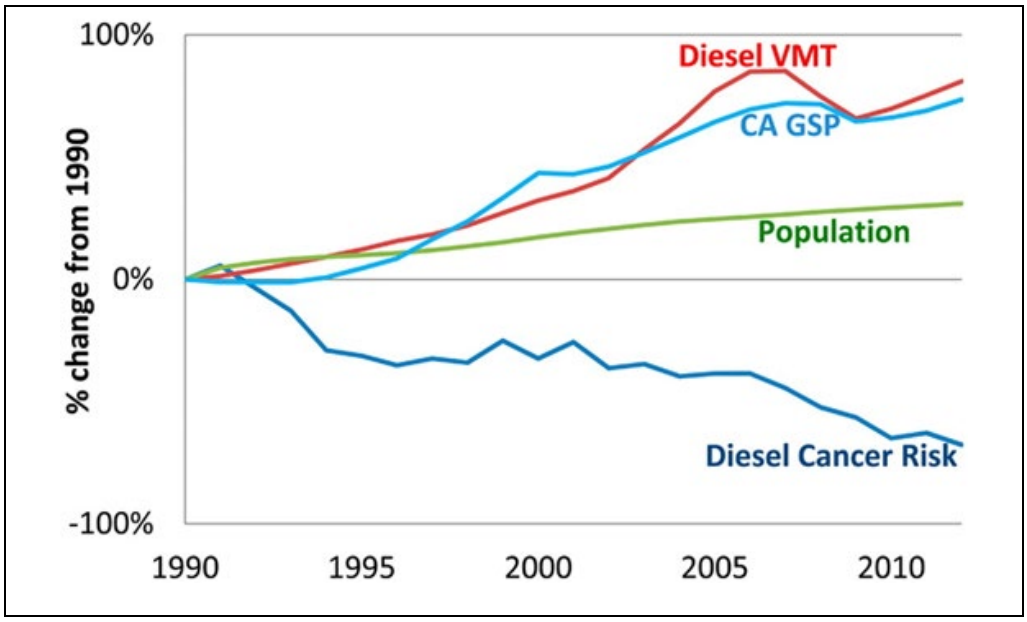
Pollutant	Standard	2019	2020	2021
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		10.0	2.9	1.3
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		2.0	2.6	1.2
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)		0.103	0.142	0.123
Number of days exceeded:	State: > 0.09 ppm	6	12	9
Maximum 8-hour concentration (ppm)		0.080	0.108	0.100
Number of days exceeded:	State: > 0.07 ppm	30	41	37
	Federal: > 0.07 ppm	27	36	34
Coarse Particulates (PM_{10})				
Maximum 24-hour concentration (µg/m^3)		155.7	296.0	208.8
Number of days exceeded:	State: > 50 µg/m^3	11	114	111
	Federal: > 150 µg/m^3	0	1	0
Annual arithmetic average concentration (µg/m^3)		32.6	50.8	43.2
Exceeded for the year:	State: > 20 µg/m^3	Yes	Yes	Yes
	Federal: > 50 µg/m^3	No	No	No
Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration (µg/m^3)		39.1	193.7	104.6
Number of days exceeded:	Federal: > 35 µg/m^3	1	40	22
Annual arithmetic average concentration (µg/m^3)		10.2	18.4	18.0
Exceeded for the year:	State: > 12 µg/m^3	No	Yes	Yes
	Federal: > 15 µg/m^3	No	Yes	Yes
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppm)		0.057	0.054	0.049
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.008	0.009	0.007
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)[1]				
Maximum 1-hour concentration (ppm)		0.0089	0.0162	0.0075
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Maximum 24-hour concentration (ppm)		0.0021	0.0022	0.0027
Number of days exceeded:	State: > 0.04 ppm	0	0	0
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.00042	0.00046	0.00043
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No

Sources: CARB (2022) and USEPA (2022).

[1] Data for SO_2 was taken from 3727 N. First Street, Fresno monitoring station. All other data was taken from 908 N. Villa Avenue, Clovis Monitoring Station.

CARB = California Air Resources Board
ND = No data. There were insufficient (or no) data to determine the value.
ppm = parts per million
USEPA = United States Environmental Protection Agency

Toxic Air Contaminant Trends. In 1984, the CARB adopted regulations to reduce TAC emissions from mobile and stationary sources, as well as consumer products. A CARB study showed that ambient concentrations and emissions of the seven TACs responsible for the most cancer risk from airborne exposure declined by 76 percent between 1990 and 2012.[6] Concentrations of diesel particulate matter, a key TAC, declined by 68 percent between 1990 and 2012, despite a 31 percent increase in State population and an 81 percent increase in diesel vehicle miles traveled (VMT), as shown on Figure 4.2-1, below. The study also found that the significant reductions in cancer risk to California residents from the implementation of air toxics controls are likely to continue.



Source: Ambient and Emission Trends of Toxic Air Contaminants in California (Propper, Ralph, et al. 2015).

Figure 4.2-1: California Population, Gross State Product (GSP), Diesel Cancer Risk, and Diesel Vehicle Miles Traveled (VMT) Regulatory Context

The USEPA and the CARB regulate direct emissions from motor vehicles. The SJVAPCD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

4.2.2 Regulatory Setting

The USEPA and CARB regulate direct emissions from motor vehicles. The SJVAPCD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g.,

[6] Propper, Ralph, Patrick Wong, Son Bui, Jeff Austin, William Vance, Álvaro Alvarado, Bart Croes, and Dongmin Luo. 2015. Ambient and Emission Trends of Toxic Air Contaminants in California. *American Chemical Society: Environmental Science & Technology*. Website: pubs.acs.org/doi/full/10.1021/acs.est.5b02766 (accessed January 2023).

factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

The applicable federal, State, regional, and local regulatory framework is discussed below.

4.2.2.1 Federal Regulations

Federal Clean Air Act. At the federal level, the USEPA has been charged with implementing national air quality programs. The USEPA air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required the USEPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The USEPA has responsibility to review all state SIPs to determine conformity with the mandates of the FCAA and determine if implementation will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area, which imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions on transportation funding and stationary air pollution sources in the air basin.

The USEPA is also required to develop National Emission Standards for Hazardous Air Pollutants, which are defined as those which may reasonably be anticipated to result in increased deaths or serious illness, and which are not already regulated. An independent science advisory board reviews the health and exposure analyses conducted by the USEPA on suspected hazardous pollutants prior to regulatory development.

4.2.2.2 State Regulations

The CARB is the lead agency for implementing air quality regulations in the State. Key efforts by the State are described below.

California Clean Air Act. In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California ambient air quality standards (CAAQS) for carbon monoxide, ozone, sulfur dioxide and nitrogen dioxide by the earliest practical date. The California Clean Air Act provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

Legal authority for California to regulate sources of air pollution is found in federal and State law. The CARB is charged with coordinating regional and local efforts to attain and maintain State and nation air quality standards. The CARB has been given authority to regulate many sources that would normally be pre-empted by federal regulations through the issuance of waivers.

Pursuant to these authorities, CARB has adopted the world's most stringent standards for passenger cars, light-duty trucks, and medium-duty vehicles. CARB has also adopted regulations establishing standards for heavy-duty vehicles, offroad vehicles and engines, offroad recreational vehicles, off road diesel engines and equipment, offroad gasoline and liquefied petroleum gas (LPG) engines and equipment, and marine pleasure craft. Descriptions of these regulations are provided below.

Low-Emission Vehicle Program. The CARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan (SIP). In 2012, CARB adopted the LEV III amendments to California's Low- Emission Vehicle (LEV) regulations. These amendments include more stringent emission standards for both criteria pollutants and greenhouse gases for new passenger vehicles.

Air Quality Land Use Handbook. The CARB has developed an Air Quality and Land Use Handbook[7] which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;

[7] California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet); and
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site specific meteorology, freeway truck percentages or other factors that influence risk for a particular project site. The purpose of the land use compatibility analysis is to further examine the project site for actual health risk associated with the location of new housing on the project site.

4.2.2.3 Regional Regulations

San Joaquin Valley Air Pollution Control District. The SJVAPCD is responsible for controlling emissions primarily from stationary sources. The SJVAPCD maintains air quality monitoring stations throughout the basin. The SJVAPCD, in coordination with the eight county transportation agencies, is also responsible for developing, updating, and implementing air quality attainment plans for the Air Basin. The SJVAPCD also has roles under CEQA.

Guide for Assessing and Mitigating Air Quality Impacts. The SJVAPCD provides guidance and thresholds for CEQA air quality and greenhouse gas analyses. The result of this guidance as well as State regulations to control air pollution is an overall improvement in the Basin. In particular, the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) states the following:

The SJVAPCD's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary means of reducing indirect emissions such as those from land use development projects. The approved General Plan is the primary long range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals. Section 65302.1 of the California Government Code requires cities and counties in the San Joaquin Valley to amend appropriate elements of their general plans to include data, analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality in their next housing element revisions.

The SJVAB is classified nonattainment for ozone, PM_{10}, and $PM_{2.5}$. The SJVAPCD had adopted project level thresholds based on a cumulative contribution of ozone precursors ROG and NO_x of 10 tons per year and thresholds for PM_{10} and $PM_{2.5}$ of 15 tons per year.

Current Air Quality Plans. The SJVAPCD is responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. The SJVAPCD does not have one single AQMP for criteria pollutants, rather the SJVAPCD address each criteria pollutant with its own Plan. The SJVAPCD has the following AQMPs:

- 2022 Plan for the 2015 8-Hour Ozone Standard
- 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards
- 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ standard
- 2016 Plan for the 2008 8-Hour Ozone Standard
- 2013 Plan for the Revoked 1-Hour Ozone Standard
- 2007 PM_{10} Maintenance Plan
- 2004 Revision to the California State Implementation Plan for Carbon Monoxide

The SJVAPCD's AQMPs incorporate the latest scientific and technological information and planning assumptions, including updated emission inventory methodologies for various source categories. The SJVAPCD's AQMPs included the integrated strategies and measures needed to meet the national ambient air quality standards (NAAQS), implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour ozone NAAQS as well as the latest 24-hour and annual $PM_{2.5}$ standards.

The SJVAPCD's current air quality plans are discussed below.

Ozone Plans. The SJVAPCD's Governing Board approved the 2022 Plan for the 2015 8-hour ozone standard on December 15, 2022. The comprehensive strategy in this plan will reduce NO_x emissions by 72 percent by 2037 and will bring the San Joaquin Valley into attainment of USEPA's 2015 8-hour ozone standard as expeditiously as practicable by the 2037 attainment deadline.

Particulate Matter Plans. The SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007 to assure the SJVAB's continued attainment of the USEPA's PM_{10} standard. The USEPA designated the valley as an attainment/maintenance area for PM_{10}.

The 2008 $PM_{2.5}$ Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the Basin into attainment of the 1997 national standards for $PM_{2.5}$. The USEPA has identified NO_x and SO_2 as precursors that must be addressed in air quality plans for the 1997 $PM_{2.5}$ standards. The 2008 $PM_{2.5}$ Plan is a continuation of the SJVACPD's strategy to improve the air quality in the SJVAB.

The SJVAPCD prepared the 2012 $PM_{2.5}$ Plan to bring the San Joaquin Valley into attainment of the USEPA's most recent 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$. The CARB approved the SJVAPCD's 2012 $PM_{2.5}$ Plan at a public hearing on January 24, 2013. The plan, approved by the SJVAPCD Governing Board on December 20, 2012, will bring the Valley into attainment of USEPA's 1997 $PM_{2.5}$ standard as expeditiously as practicable, but no later than, December 31, 2020.

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards on November 15, 2018. This plan addresses the USEPA federal 1997 annual $PM_{2.5}$ standard of 15 µg/m³ and 24-hour $PM_{2.5}$ standard of 65 µg/m³; the 2006 24-hour $PM_{2.5}$ standard of 35 µg/m³; and the 2012 annual $PM_{2.5}$ standard of 12 µg/m³. This plan demonstrates attainment of the federal $PM_{2.5}$ standards as expeditiously as practicable.

Rules and Regulations. The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the Plan Area include but are not limited to the following:

- Rule 2280—Portable Equipment Registration. Portable equipment used at project sites for less than six consecutive months must be registered with the SJVAPCD. The SJVAPCD will issue the registrations 30 days after receipt of the application.

- Rule 2303-Mobile Source Emission Reduction Credits. A project may qualify for SJVAPCD vehicle emission reduction credits if it meets the specific requirements of Rule 2303 for any of the following categories:

    - Low-Emission Transit Buses
    - Zero-Emission Vehicles
    - Retrofit Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles
    - Retrofit Heavy-Duty Vehicles

- Rule 4102 – Nuisance. The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials.

- Rule 4601 – Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.

- Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. The paving operations for new development and existing paved surfaces will be subject to Rule 4641.

- Rule 8011—General Requirements: Fugitive Dust Emission Sources. Fugitive dust regulations are applicable to outdoor fugitive dust sources. Operations, including construction operations, must control fugitive dust emissions in accordance with SJVAPCD Regulation VIII. According to Rule 8011, the SJVAPCD requires the implementation of control measures for fugitive dust emission sources. For projects in which construction-related activities would disturb equal to or greater than 1 acre of surface area, the SJVAPCD recommends that demonstration of receipt of an SJVAPCD-approved Dust Control Plan or Construction Notification Form, before issuance of the first grading permit, be made a condition of approval.

- Regulation VIII – Fugitive PM_{10} Prohibitions. Rules 8011-8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

- Rule 9410 – Employer Based Trip Reduction. The purpose of this rule is to reduce vehicle miles traveled (VMT) from private vehicles used by employees to commute to and from their worksites in order to reduce emissions of NO_x, VOC and PM. The rule requires larger employers (those with 100 or more eligible employees) to establish employee trip reduction programs to reduce VMT, reducing emissions associated with work commutes. The rule uses a menu-based Employer Trip Reduction Implementation Plan and periodic reporting requirements to evaluate performance on a phased-in compliance schedule.

- Rule 9510 – Indirect Source Review. This rule reduces the impact of NO_x and PM_{10} emissions from new development projects. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through onsite mitigation, offsite SJVAPCD-administered projects, or a combination of the two. Compliance with SJVAPCD Rule 9510 reduces emissions impacts through incorporation of onsite measures as well as payment of an offsite fee that funds emission reduction projects in the Air Basin. The emissions analysis for Rule 9510 is detailed and is dependent on the exact project design that is expected to be constructed or installed. Compliance with Rule 9510 is separate from the CEQA process, though the control measures used to comply with Rule 9510 may be used to mitigate significant air quality impacts.

- Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration could also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD.

  Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The SJVAPCD has determined the common land use types that are known to produce odors in the Basin. These types are shown in Table 4.2.E.

Table 4.2.E: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

Source: San Joaquin Valley Air Pollution Control District (2015b).

Fresno Council of Governments. Fresno Council of Governments (FCOG) is responsible for regional transportation planning in Fresno county and participates in developing mobile source emission inventories used in air quality attainment plans.

Regional Transportation Plan/Sustainable Communities Strategy. Regional Transportation Plans (RTPs) are State-mandated plans that identify long-term transportation needs for a region's transportation network. Fresno Council of Governments' (FCOG) 2018 RTP charts the long-range vision of regional transportation in Fresno county through the year 2042. The RTP identifies existing and future transportation related needs, while considering all modes of travel, analyzing alternative solutions, and identifying priorities for the anticipated available funding for the 1,100 projects and multiple programs included within it. Senate Bill 375 (SB 375), which went into effect in 2009, added statutes to the California Government Code to encourage planning practices that create sustainable communities. It calls for each metropolitan planning organization to prepare a Sustainable Communities Strategy (SCS) as an integrated element of the RTP that is to be updated every four years. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas (GHG) emissions from autos and light trucks. Fresno COG has included the SCS in its 2018 RTP.

Transportation Conformity. FCOG must ensure that transportation plans and projects comply with Federal Transportation Conformity. Transportation conformity is a way to ensure that Federal funding and approval are given to those transportation activities that are consistent with air quality goals. It ensures that these transportation activities do not worsen air quality or interfere with the "purpose" of the State Implementation Plan, which is to meet the NAAQS. Meeting the NAAQS often requires emissions reductions from mobile sources. According to the Clean Air Act, transportation plans, programs, and projects cannot:

- Create new NAAQS violations;
- Increase the frequency or severity of existing NAAQS violations; or
- Delay attainment of the NAAQS.

In practice, air quality plans include criteria pollutant emission budgets required for attainment of air quality standards by mandated deadlines. The budgets must not be exceeded considering projected growth in mobile source activity. The FCOG 2019 Conformity Analysis determined that the conformity tests for ozone, PM10 and PM2.5 revealed that all years are projected to be less than the approved emissions budgets and, as such, the conformity tests are satisfied.

4.2.2.4 Local Regulations

City of Clovis General Plan. The City of Clovis addresses air quality in the Air Quality Element of the General Plan. The Air Quality Element provides goals, policies, and action items that work to meet or exceed all State and federal air quality standards. Applicable air quality policies and action items from the Air Quality Element are listed in Table 4.2.F below.

Table 4.2.F: City of Clovis General Plan Policies Related to Air Quality

Policy/Action Item Number	Policy/Action Item
Air Quality Element	
Policy 1.1	**Land use and transportation.** Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
Policy 1.3	**Construction activities.** Encourage the use of best management practices during construction activities to reduce emissions of criteria pollutants as outlined by the San Joaquin Valley Air Pollution Control District (SJVAPCD).
Policy 1.6	**Alternative fuel infrastructure.** Encourage public and private activity and employment centers to incorporate electric charging and alternative fuel stations.
Policy 1.8	**Trees.** Maintain or plant trees where appropriate to provide shade, absorb carbon, improve oxygenation, slow stormwater runoff, and reduce the heat island effect.
Policy 2.1	**Regional coordination.** Support regional efforts to reduce air pollution (criteria air pollutants and greenhouse gas emissions) and collaborate with other agencies to improve air quality at the emission source and reduce vehicle miles traveled.
Policy 2.6	**Innovative mitigation.** Encourage innovative mitigation measures to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties.

Source: City of Clovis General Plan (August 2014).

4.2.3 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to air quality that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds to determine if an impact is significant. The latter part of this section presents the impacts associated with implementation of the proposed project and the recommended mitigation measures. Mitigation measures are recommended, as appropriate, for

significant impacts to eliminate or reduce them to a less-than-significant level. Cumulative impacts are also addressed.

4.2.3.1 Significance Criteria

Based on CEQA Guidelines Appendix G, the proposed project would have a significant impact on air quality if it would:

a. Conflict with or obstruct implementation of the applicable air quality plan;

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under an applicable federal or state ambient air quality standard;

c. Expose sensitive receptors to substantial pollutant concentrations; or

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

4.2.3.2 Regional Emissions Thresholds

A threshold of significance is defined by the SJVAPCD in its GAMAQI[8] as an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Non-compliance with a threshold of significance means the effect will normally be determined to be significant. Compliance with a threshold of significance means the effect normally will be determined to be less than significant. The SJVAPCD has established thresholds of significance for criteria pollutant emissions generated during construction and operation of projects as shown in Table 4.2.G below.

Table 4.2.G: SJVAPCD Construction and Operation Thresholds of Significance (Tons per Year)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015a).

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

[8] San Joaquin Valley Air Pollution Control District. 2015a. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF (accessed January 2023.

4.2.3.3 Health Risk Thresholds

Both the State and federal governments have established health-based ambient air quality standards (AAQS) for seven air pollutants. For other air pollutants without defined significance standards, the definition of substantial pollutant concentrations varies. For TACs, "substantial" is taken to mean that the individual health risk exceeds a threshold considered to be a prudent risk management level.

The following limits for maximum individual cancer risk (MICR) and noncancer acute and chronic Hazard Index (HI) from project emissions of TACs are considered appropriate for use in determining the health risk for projects in the Basin:

- **MICR:** MICR is the estimated probability of a maximum exposed individual (MEI) contracting cancer as a result of exposure to TACs over a period of 70 years for adults and 9 years for children in residential locations, 350 days per year. The SJVAPCD's *Update to the District's Risk Management Policy to Address the OEHHA Revised Risk Assessment Guidance Document* states that emissions of TACs are considered significant if an HRA shows an increased risk of greater than 20 in 1 million.

- **Chronic HI:** Chronic HI is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multi-pathway consideration when applicable. The project would be considered significant if the cumulative increase in total chronic HI for any target organ system would exceed 1.0 at any receptor location.

- **Acute HI:** Acute HI is the ratio of the estimated maximum 1-hour concentration of a TAC for a potential MEI to its acute reference exposure level. The project would be considered significant if the cumulative increase in total acute HI for any target organ system would exceed 1.0 at any receptor location.

4.2.3.4 Project Impacts

The following discussion describes the potential impacts related to air quality that could result from implementation of the proposed project.

a. **Would the project conflict with or obstruct implementation of the applicable air quality plan?**

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a nonattainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley into attainment, the SJVAPCD adopted the 2022 Plan for the 2015 8-hour

ozone standard in December 2022 to satisfy Clean Air Act requirements and ensure attainment of the 70 parts per billion (ppb) 8-hour ozone standard.[9]

To ensure the SJVAB's continued attainment of the USEPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007.[10] The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards in November 2018 to address the USEPA 1997 annual $PM_{2.5}$ standard of 15 micrograms per cubic meter ($\mu g/m^3$) and 24-hour $PM_{2.5}$ standard of 65 $\mu g/m^3$, the 2006 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$, and the 2012 annual $PM_{2.5}$ standard of 12 $\mu g/m^3$.[11]

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan as it relates to a region's non-attainment status. An air quality plan describes air pollution control strategies to be implemented in a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. As discussed above, the SJVAB is designated as non-attainment for O_3 and $PM_{2.5}$ for federal standards and non-attainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards. Therefore, to bring the SJVAB into attainment, the SJVAPCD adopted the 2022 Plan for the 2015 8-Hour Ozone Standard in December 2022 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.

To assure the SJVAB's continued attainment of the USEPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007. SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) is designed to reduce PM_{10} emissions generated by human activity. The SJVAPCD adopted the 2018 plan for the 1997, 2006, and 2012 $PM_{2.5}$ standards to address the USEPA federal annual $PM_{2.5}$ standard of 12 $\mu g/m^3$, established in 2012.

For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. As discussed below, construction of the proposed project is anticipated to occur in three consecutive phases occurring over a total 33-month period starting in December 2023 and would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. These control measures are intended to reduce the amount of PM_{10} emissions during the construction period. Implementation of the fugitive dust control measures outlined in

[9] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2022. *2022 Plan for the 2015 8-Hour Ozone Standard*. December 15. Website: https://ww2.valleyair.org/media/q55posm0/0000-2022-plan-for-the-2015-8-hour-ozone-standard.pdf (accessed February 2023).

[10] San Joaquin Valley Air Pollution Control District. 2007. *2007 PM_{10} Maintenance Plan and Request for Redesignation*. Available online at: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf (accessed September 2022).

[11] San Joaquin Valley Air Pollution Control District. 2018. *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards*. November 15. Website: http://valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf (accessed September 2022).

Regulatory Compliance Measure AIR-2, would ensure that the proposed project complies with Regulation VIII, further reduces the short-term construction period air quality impacts, and ensures compliance with air quality plans. In addition, as discussed below and shown in Table 4.2.I, long-term operational emissions associated with the proposed project, including area, energy, and mobile source emissions, would also not exceed SJVAPCD established significance thresholds. Therefore, impacts related to the proposed project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

The proposed project's potential air quality impacts from construction and operation would not exceed any applicable threshold of significance and would not conflict with or obstruct the applicable clean air plan. Therefore, the proposed project's potential impacts on the applicable air quality plan are less than significant.

Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.

Level of Significance Without Mitigation: Less than Significant. No mitigation is required.

b. **Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under an applicable federal or state ambient air quality standard?**

The SJVAB is designated as non-attainment for O_3 and $PM_{2.5}$ for federal standards and non-attainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards. The SJVAPCD's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots, averaging 3,329 square feet within the 71.54-acre project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 174.46-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. The following analysis assesses the potential project-level construction- and operation-related air quality impacts.

Short-Term Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Construction activities associated with implementation of the proposed project would include demolition, site preparation, grading, paving, and building activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SJVAPCD has implemented Regulation VIII measures for reducing fugitive dust emissions (PM_{10}). With the implementation of Regulation VIII measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, ROG, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions for the proposed project were analyzed using CalEEMod. Construction of the proposed project is anticipated to occur in three phases over a 33-month period starting in December 2023 and ending in September 2026. Construction phases are expected to occur consecutively; therefore, this analysis evaluates construction emissions as a whole and not per phase. Site preparation would include demolition of existing structures, and removal of rocks, debris, and vegetation from the project site and grading would require the import of approximately 41,000 cubic yards of soil to level the project site, which was included in CalEEMod. In addition, this analysis assumes that the proposed project would be constructed using Tier 2 construction equipment, which was included in CalEEMod. Other precise details of construction activities are unknown at this time; therefore, default assumptions (e.g., construction worker and truck trips and construction fleet activities) from CalEEMod were used. Construction-related emissions are presented in Table 4.2.H. CalEEMod output sheets are included in Appendix D.

As described in a) above, for a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant

impact on air quality, and a project should comply with applicable offset requirements that reduce project emissions pursuant to goals of SJVAPCD air quality plans.

As shown in Table 4.2.H, construction emissions for the proposed project would not exceed the SJVAPCD annual threshold for construction emissions. In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. These control measures are intended to reduce the amount of PM_{10} emissions during the construction period. Implementation of the fugitive dust control measures outlined in Regulatory Compliance Measure AIR-2, would ensure that the proposed project complies with Regulation VIII, further reduces the short-term construction period air quality impacts and ensures compliance with air quality plans.

Table 4.2.H: Project Construction Emissions (Tons Per Year)

Project Construction	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
2023	<0.1	0.3	0.2	<0.1	<0.1	<0.1
2024	0.2	4.7	3.6	<0.1	1.0	0.4
2025	0.2	2.7	2.8	<0.1	0.2	0.1
2026	0.1	1.8	1.9	<0.1	0.1	<0.1
Maximum Annual Construction Emissions	**0.2**	**4.7**	**3.6**	**<0.1**	**1.0**	**0.4**
SJVAPCD Thresholds	**10.0**	**10.0**	**100.0**	**27.0**	**15.0**	**15.0**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (February 2023).

CO = carbon monoxide
NO_X = nitrous oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic compounds
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_2 = sulfur dioxide

Therefore, with compliance with regulatory requirements (as specified in Regulatory Compliance Measure AIR-2), construction of the proposed project would result in a less than significant impact related to a cumulative considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

Long-Term Operational Emissions. Long-term air pollutant emission impacts associated with the proposed project are those related to mobile sources (e.g., vehicle trips), energy sources (e.g., natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment). The proposed project would not include natural gas.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement, and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles. Trip generation rates for the proposed project were based on the project's trip generation estimate, as identified in Section 4.5, Transportation. As discussed in Section 4.5, Transportation, the proposed project would generate approximately 5,564 average daily trips.

Energy source emissions result from activities in buildings for which natural gas is used. As identified above, the proposed project would not include natural gas; therefore, the proposed project would not result in energy source emissions.

Area source emissions associated with the proposed project would include emissions from the use of architectural coatings, consumer products, and landscaping equipment.

Emission estimates for operation of the project were calculated using CalEEMod. The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project, emissions are released in other areas of the SJVAB. The annual emissions associated with project operational trip generation, energy, and area sources are identified in Table 4.2.I for ROG, NO_x, CO, sulfur oxide (SO_x), PM_{10}, and $PM_{2.5}$. CalEEMod output sheets are included in Appendix D.

Table 4.2.I: Project Operation Emissions (Tons Per Year)

	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile source Emissions	3.4	3.3	22.7	0.1	2.0	0.4
Area Source Emissions	5.1	0.3	5.6	<0.1	0.8	0.8
Energy Source Emissions	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Operation Emissions	**8.5**	**3.6**	**28.3**	**0.1**	**2.8**	**1.2**
SJVAPCD Significance Threshold	**10.0**	**10.0**	**100.0**	**27.0**	**15.0**	**15.0**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (February 2023).
Note: Some values may not appear to add up correctly due to rounding.
CO = carbon monoxide
NO_X = nitrous oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic compounds
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_X = sulfur oxide

The results in Table 4.2.I indicate the proposed project's operational emissions would not exceed the significance criteria for annual ROG, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would result in a less-than-significant impact related to a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is in nonattainment under an applicable federal or State ambient air quality standard.

Impact AIR-2: Implementation of the proposed project would not result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or State ambient air quality standards.

Level of Significance Without Mitigation: Less Than Significant. No mitigation is required. The following regulatory compliance measure pertaining to air quality is applicable to the proposed project.

Regulatory Compliance Measure AIR-2 Consistent with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be

included as specifications for the proposed project and implemented at the construction site:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.

With the implementation of Regulation VIII measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

Level of Significance With Mitigation**:** Implementation of Regulatory Compliance Measure AIR-2 would further reduce project-related air quality impacts to a less than significant level.

c. **Would the project expose sensitive receptors to substantial pollutant concentrations?**

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. The closest sensitive receptors include single-family residential uses located approximately 30 feet south of the project site along Baron Avenue and Heirloom Lane, approximately 100 feet east of the project site across Baron Avenue, and approximately 230 feet west of the project site.

Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms.

A construction HRA, which evaluates construction-period health risk to off-site receptors, was performed for the proposed project and is summarized below. The project site is located near existing residential uses that could be exposed to diesel emission exhaust during the construction period.

To estimate the potential cancer risk associated with equipment exhaust (including diesel particulate matter) released during construction of the proposed project, a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location of interest (i.e., a nearby residence and worksites). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using the CARB exposure methodology with the air dispersion modeling performed using the USEPA dispersion model AERMOD. The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance from the source to the receptor, and meteorological data.

Both the State and federal governments have established health-based AAQS for seven air pollutants. For other air pollutants without defined significance standards, the definition of substantial pollutant concentrations varies. For TACs, “substantial” is taken to mean that the individual health risk exceeds a threshold considered to be a prudent risk management level.

The following limits for maximum individual cancer risk (MICR) and noncancer acute and chronic Hazard Index (HI) from project emissions of TACs are considered appropriate for use in determining the health risk for projects in the Basin:

- **MICR:** MICR is the estimated probability of a maximum exposed individual (MEI) contracting cancer as a result of exposure to TACs over a period of 70 years for adults and 9 years for children in residential locations, 350 days per year. The SJVAPCD’s *Update to the District’s Risk Management Policy to Address the OEHHA Revised Risk Assessment Guidance Document* states that emissions of TACs are considered significant if an HRA shows an increased risk of greater than 20 in 1 million.

- **Chronic HI:** Chronic HI is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multi-pathway consideration when applicable. The project would be considered significant if the cumulative increase in total chronic HI for any target organ system would exceed 1.0 at any receptor location.

- **Acute HI:** Acute HI is the ratio of the estimated maximum 1-hour concentration of a TAC for a potential MEI to its acute reference exposure level. The project would be considered significant if the cumulative increase in total acute HI for any target organ system would exceed 1.0 at any receptor location.

Table 4.2.J, below, identifies the results of the analysis assuming the use of Tier 2 construction equipment, as proposed by the project, at the maximally exposed individual (MEI), which is the nearest sensitive receptor. Model images and details related to the modeled sources are shown in Appendix E of this EIR.

Table 4.2.J: Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index
Sensitive Receptor Risk	9.93	0.009	0.000
Worker Receptor Risk	0.06	0.009	0.000
Threshold	**20.0**	**1.0**	**1.0**
Exceed?	**No**	**No**	**No**

Source: LSA (February 2023)
$\mu g/m^3$ = micrograms per cubic meter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

As shown in Table 4.2.J, the maximum cancer risk for the sensitive receptor MEI would be 9.93 in one million, which would not exceed the SJVAPCD cancer risk threshold of 20 in one million. The worker receptor risk would be lower at 0.06 in one million, which would also not exceed the threshold. The total chronic hazard index would be 0.009 for both the sensitive receptor MEI and worker receptor MEI, which would be below the threshold of 1.0. In addition, the total acute hazard index would be nominal (0.000), which would also not exceed the threshold of 1.0. Therefore, construction of the proposed project would not exceed SJVAPCD thresholds and would not expose nearby sensitive receptors to substantial pollutant concentrations and this impact would be less than significant.

Once the proposed project is constructed, the proposed project would not be a source of substantial emissions. Therefore, implementation of the proposed project would not result in new sources of TACs. Therefore, the project would not expose sensitive receptors to substantial levels of TACs and this impact would be less than significant.

As such, the proposed project's potential air quality impacts from construction and operation would not expose sensitive receptors to substantial pollutant concentrations. The proposed project would

not result in any individual health risk in excess of the thresholds considered to be prudent risk management levels. Therefore, the proposed project's potential air quality impacts on sensitive receptors are less than significant.

Impact AIR-3: Implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Level of Significance Without Mitigation: Less than Significant. No mitigation is required.

d. **Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

During construction, the various diesel-powered vehicles and equipment in use on site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. Because the project's potential construction-related odor impacts are localized and temporary, they would not adversely affect a substantial number of people. Therefore, the project's potential construction-related odor impacts are less than significant.

The SJVAPCD addresses odor criteria within the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI)[12]. The district has not established a rule or standard regarding odor emissions, rather, the district has a nuisance rule: "Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact". After construction, the proposed land use of the project is not anticipated to emit any objectionable odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact AIR-4: The project would not result in significant odors that could adversely affect a substantial number of people.

Level of Significance Without Mitigation: Less than Significant. No mitigation is required.

4.2.3.5 Cumulative Impacts

According to the SJVAPCD, regional air pollution is largely a cumulative impact. No single project is sufficient in size to independently create regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

The SJVAPCD is currently designated as a nonattainment area for State and national ozone standards and national particulate matter ambient air quality standards. SJVAPCD nonattainment status is attributed to the region's development history. Past, present, and future development

[12] San Joaquin Valley Air Pollution Control District. 2015a. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF (accessed January 2023.

projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Therefore, if the proposed project's annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a considerable contribution to a cumulatively significant impact. As shown in Table 4.2.H and Table 4.2.I, the proposed project would not generate significant construction and operational emissions. Additionally, with implementation of Regulatory Compliance Measure AIR-2, the proposed project would further reduce short-term construction impacts and would be compliant with air quality plans. As shown in the project-specific air quality impacts discussion above, the proposed project would not result in individually significant impacts and therefore the proposed project would not result in a cumulatively considerable contribution to regional air quality impacts. Cumulative impacts would be considered less than significant.

In addition, as demonstrated in the analysis, the health risk levels to nearby residents from project construction- and operation-related emissions of TACs would be well below the SJVAPCD's HRA thresholds. Therefore, the proposed project would not result in any individual health risk in excess of the thresholds considered to be prudent risk management levels. Therefore, the proposed project's cumulative air quality impacts on sensitive receptors are less than significant.

Impact AIR-5: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not contribute to a less than significant cumulative impact with respect to air quality.

Level of Significance Without Mitigation: Less than Significant. No mitigation is required.

This page intentionally left blank

4.3 GREENHOUSE GAS EMISSIONS

This section summarizes existing greenhouse gas (GHG) emissions and discusses global climate change, its causes, and the contribution of human activities. This section also estimates the likely GHG emissions that would result from construction and operational activities associated with implementation of the proposed project, including vehicular traffic, energy consumption and other emission sources. Mitigation measures are recommended where appropriate to reduce impacts to a less-than-significant level. The analysis in this section is based on the California Emissions Estimator Model version 2022.1 (CalEEMod) (Appendix D).

4.3.1 Environmental Setting

The following discussion describes existing GHG emissions in the City of Clovis (City) and the and the San Joaquin Valley Air Basin (SJVAB), beginning with a discussion of typical GHG types and sources, impacts of global climate changes, the regulatory framework surrounding these issues, and current emission levels.

4.3.1.1 Background

The following section provides background information on GHGs and global climate change.

Greenhouse Gases. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are the following:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term “GHGs” will refer collectively to the six gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another

gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). Table 4.3.A shows the GWP for each type of GHG. For example, sulfur hexafluoride is 23,900 times more potent at contributing to global warming than carbon dioxide.

Table 4.3.A: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	310
HFC-23	270	11,700
HFC-134a	14	140
HFC-152a	1.4	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: *Second Update to the Climate Change Scoping Plan: Building on the Framework* (CARB 2017b). Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed February 2023).

The following discussion summarizes the characteristics of the six GHGs and black carbon. Black carbon also contributes to climate change and is therefore discussed below.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic out gassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of man-made emissions of CO_2 each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO_2, and consequently, the gas is building up in the atmosphere. In 2020, total annual CO_2 accounted for approximately 80.2 percent of California's overall GHG emissions.[1] Transportation is the single largest source of CO_2 in California, which is primarily comprised of on-road travel. Electricity production, industrial, and residential sources also make important contributions to CO_2 emissions in California.

[1] California Air Resources Board (CARB). 2022d. GHGs Descriptions & Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed January 2023).

Methane. Methane (CH_4) is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands and oceans. Decomposition occurring in landfills accounts for the majority of human generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation in dairy cows, manure management, and rice cultivation are also significant sources of CH_4 in California. Total annual emissions of CH_4 accounted for approximately 10.5 percent of GHG emissions in California in 2020.

Nitrous Oxide. Nitrous oxide (N_2O) is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for most natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human generated N_2O emissions in California. N_2O emissions in California. Nitrous oxide emissions accounted for approximately 3.5 percent of GHG emissions in California in 2020.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride.HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[2] PFCs and SF6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry has resulted in greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 5.8 percent of GHG emissions in California in 2020.[3]***Black Carbon.*** Black carbon is the most strongly light-absorbing component of particulate matter (PM) formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of particulate matter less than 2.5 microns in size ($PM_{2.5}$) and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb one million times more energy than CO_2.[4] Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global warming.

---

2 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

3 Ibid.

4 United States Environmental Protection Agency (USEPA). 2017. Black Carbon, Basic Information. February 14, 2017. Website: 19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html (accessed September 2022).

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel fueled vehicles.[5] The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. The CARB estimates that the annual black carbon emissions in California will be reduced approximately 50 percent below 2013 levels by 2030.[6]

Effects of Global Climate Change. Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global climate change may also contribute to air quality problems from increased frequency of smog and particulate air pollution.[7]

Additionally, according to the 2006 California Climate Action Team (CAT) Report,[8] the following climate change effects, which are based on trends established by the United Nations Intergovern-mental Panel on Climate Change (IPCC), can be expected in California over the course of the next century:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;[9]

- Rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets;[10]

- Changes in weather that include widespread changes in precipitation, ocean salinity, wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;[11]

---

5 United States Environmental Protection Agency (USEPA). 2017. Black Carbon, Basic Information. February 14, 2017. Website: 19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html (accessed September 2022).

6 CARB. 2017c. *Short-Lived Climate Pollutant Reduction Strategy.* March. Website: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf (accessed September 2022).

7 U.S. Environmental Protection Agency, 2016. Climate Impacts on Human Health. Website: 19january2017snapshot.epa.gov/climate-impacts/climate-impacts-human-health_.html (accessed March 7, 2022).

8 California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

9 Ibid.

10 Ibid.

- Decline of the Sierra snowpack, which accounts for approximately one-half of the surface water storage in California by 70 percent to as much as 90 percent over the next 100 years;[12]

- Increase in the number of days conducive to ozone (O_3) formation by 25–85 percent (depending on the future temperature scenario) in high O_3 areas of Los Angeles and the San Joaquin Valley by the end of the 21st century;[13] and

- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.[14]

A summary of these potential effects is provided in Table 4.3.B below.

Effects of Rising Ocean Levels in California. Rising ocean levels, more intense coastal storms, and warmer water temperatures may increasingly threaten the Long Beach coastal region. As previously described, global surface temperatures have increased by 1.5 degrees Fahrenheit (°F) during the period from 1880 to 2012, with temperatures anticipated to rise in California by 3 to 10.5°F by the end of the century.

Rising sea levels may affect the natural environment in the coming decades by eroding beaches, converting wetlands to open water, exacerbating coastal flooding, and increasing the salinity of estuaries and freshwater aquifers. Coastal headlands and beaches are expected to erode at a faster pace in response to future sea level rise. The California Coastal Commission estimates that 450,000 acres of wetlands exist along the California coast,[15] but additional work is needed to evaluate the extent to which these wetlands would be degraded over time, or to what extent new wetland habitat would be created if those lands are protected from further development. Cumulatively, the effects of sea level rise may be combined with other potential long-term factors such as changes in sediment input and nutrient runoff. The cumulative impacts of physical and biological change due to sea level rise on the quality and quantity of coastal habitats are not well understood. [16]

---

11 Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February.

12 California Environmental Protection Agency. 2006. op. cit.

13 California Environmental Protection Agency. 2006. op. cit.

14 Ibid.

15 California Coastal Commission (CCC). Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone. Website: http://www.coastal.ca.gov/wetrev/wetch4.html (accessed September 2022).

16 Climate Change Science Program (CCSP) 4.1. January 15, 2009, 1 of 784 Final Report, United States CCSP, Synthesis and Assessment Product 4.1. Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region. Lead Agency: U.S. Environmental Protection Agency, Other Key Participating Agencies: U.S. Geological Survey, National Oceanic and Atmospheric Administration. Contributing Agencies: Department of Transportation.

Table 4.3.B: Potential Impacts of Global Warming and Expected Consequences for California

Potential Water Resource Impacts	Anticipated Consequences Statewide
Reduction of the State's average annual snowpack	● Specifically, the decline of the Sierra snowpack, would lead to a loss in half of the surface water storage in California by 70% to 90% over the next 100 years ● Potential loss of 5 million acre-feet or more of average annual water storage in the State's snowpack ● Increased challenges for reservoir management and balancing the competing concerns of flood protection and water supply ● Higher surface evaporation rates with a corresponding increase in tropospheric water vapor
Rise in average sea level	● Potential economic impacts related to coastal tourism, commercial fisheries, coastal agriculture, and ports ● Increased risk of flooding, coastal erosion along the State's coastline, seawater intrusion into the Delta and levee systems
Changes in weather	● Changes in precipitation, ocean salinity, and wind patterns ● Increased likelihood for extreme weather events, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones
Changes in the timing, intensity, location, amount, and variability of precipitation	● Potential increased storm intensity and increased potential for flooding ● Possible increased potential for droughts ● Long-term changes in vegetation and increased incidence of wildfires ● Changes in the intensity and timing of runoff ● Possible increased incidence of flooding and increased sedimentation ● Sea level rise and inundation of coastal marshes and estuaries ● Increased salinity intrusion into the Sacramento-San Joaquin River Delta (Delta) ● Increased potential for Delta levee failure ● Increased potential for salinity intrusion into coastal aquifers (groundwater) ● Increased potential for flooding near the mouths of rivers due to backwater effects
Increased water temperatures	● Increased environmental water demand for temperature control ● Possible increased problems with foreign invasive species in aquatic ecosystems ● Potential adverse changes in water quality, including the reduction of dissolved oxygen levels ● Possible critical effects on listed and endangered aquatic species
Changes in urban and agricultural water demand	● Changes in demand patterns and evapotranspiration
Increase in the number of days conducive to O_3 formation	● Increased temperatures ● Potential health effects, including adverse impacts to respiratory systems

Source: U.S. Department of the Interior, *Environmental Water Account Draft Supplemental EIS/EIR to the Environmental Water Account Final EIS/EIR, Bureau of Reclamation Mid-Pacific Region*, Sacramento, California (October 2007).
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
O_3 = ozone

Sea level along the west coast of the United States is affected by a number of factors, including climate patterns such as El Niño, effects from the melting of modern and ancient ice sheets, and geologic processes such as plate tectonics. Regional projections for California, Oregon, and Washington show a sharp distinction at Cape Mendocino in northern California. South of that point, sea-level rise is expected to be very close to global projections. Projections are lower north of Cape

Mendocino because the land is being pushed upward as the ocean plate moves under the continental plate along the Cascadia Subduction Zone.

Emissions Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

Global Emissions. Worldwide emissions of GHGs in 2018 totaled 25.6 billion metric tons (MT) of CO_2e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.[17]

United States Emissions. In 2020, the year for which the most recent data are available, the United States emitted about 5,222 million metric tons of CO_2e (MMT CO_2e). Overall, emissions in 2020 decreased by 11 percent since 2019 and were 21 percent lower than 2005 levels. The primary driver for the decrease was an 11 percent decrease in CO_2 emissions from fossil fuel combustion. This decrease was primarily due to a 13 percent decrease in transportation emissions driven by decreased demand due to the ongoing COVID-19 pandemic. Electric power sector emissions also decreased 10 percent, reflecting both a slight decrease in demand from the COVID-19 pandemic and a continued shift from coal to less carbon intensive natural gas and renewables. Of the five major sectors – residential and commercial, agricultural, industry, transportation, and electricity generation – transportation accounted for the highest amount of GHG emissions in 2020 (approximately 27 percent), with electricity generation second at 27 percent and emissions from industry third at 24 percent.[18]

State of California Emissions. The State emitted approximately 369.2 MMT CO_2e emissions in 2020, 35.3 MMT CO_2e lower than 2019 levels and 61.8 MMT CO_2e below the 2020 GHG limit of 431 MMT CO_2e.[19] The California Air Resources Board (CARB) estimates that transportation was the source of approximately 37 percent of the State's GHG emissions in 2020, which is a smaller share than recent years, as the transportation sector saw a significant decrease of 26.6 MMT CO_2e in 2020, likely due in large part to the impact of the COVID-19 pandemic. The next largest sources included industrial sources at approximately 20 percent and electricity generation at 16 percent. The remaining sources of GHG emissions were commercial and residential activities at 10 percent, agriculture at 9 percent, high GWP at 6 percent, and waste at 2 percent.[20]

---

17 United Nations Framework Convention on Climate Change (UNFCCC). 2021. GHG Data from UNFCCC. Website: unfccc.int/process-and-meetings/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc/ghg-data-from-unfccc (accessed June 2022).

18 USEPA. 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019 (accessed September 2022).

19 CARB. 2022c. *California Greenhouse Gas Emissions for 2000 to 2020, Trends of Emissions and Other Indicators Report*. Website: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf (accessed January 2023).

20 Ibid.

City of Clovis. The City of Clovis prepared a Greenhouse Gas Emissions Inventory in 2012. The Inventory identifies the major sources and quantities of GHG emissions produced within the City of Clovis' jurisdictional boundaries in 2012 and forecasts emissions changes over time. Table 4.3.C shows the inventory.

Table 4.3.C: 2012 City of Clovis Community-Wide GHG Emissions Inventory by Sector

Sector	Description	GHG Emissions (Metric Tons CO_2e)	Percent of Total
Transportation	Emissions from vehicle trips beginning and ending in the City and from external/internal vehicle trips	370,517	63
Energy – Residential	Electricity and natural gas consumption in residential buildings.	81,758	14
Energy – Nonresidential	Electricity and natural gas consumption in non-residential buildings (employment buildings; commercial, industrial, etc.)	45,685	8
Waste	Solid waste generated and sent to landfills.	22,910	4
Water/Wastewater	Emissions from electricity used to supply, treat, and distribute water based on the overall water demand and wastewater generation of and within the City	23,649	4
Other – Off-road Equipment	Consists of landscaping, light commercial, construction, and agricultural equipment.	46,415	8
	Total	**590,935**	**100**

Source: City of Clovis General Plan and Development Code Update Program Environmental Impact Report (2014).

As shown in Table 4.3.C, in 2012, the City as a whole emitted approximately 590,935 metric tons of CO_2e from the residential energy, nonresidential energy, transportation, waste, water and wastewater sectors. As shown in Table 4.3.C, the largest contributors of GHG emissions were the transportation (63 percent), residential energy (14 percent and nonresidential energy (8 percent) sectors. The remainder of emissions resulted from the off-road equipment (8 percent), waste (4 percent), and water and wastewater (4 percent) sectors.

4.3.2 Regulatory Setting

4.3.2.1 Federal Regulations

Federal Clean Air Act. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the United States Environmental Protection Agency (USEPA) has the authority to regulate CO_2 emissions under the Federal Clean Air Act (FCCA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Federal Clean Air Act, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

In October 2012, the USEPA and the NHTSA, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* 62624). The NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 *Federal Register* 62630).

On March 31, 2022, the National Highway Traffic Safety Administration (NHTSA) finalized the Corporate Average Fuel Economy (CAFE) standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gas between model years 2030 to 2050.

4.3.2.2 State Regulations

The CARB is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 1493 (2002). In a response to the transportation sector's significant contribution to California CO_2 emissions, Assembly Bill (AB) 1493 was enacted on July 22, 2002. AB 1493 requires the CARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of Clean Air Act Preemption was not granted by the USEPA until June 30, 2009. CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025. The Trump administration revoked California's waiver in 2019, but the Biden administration restored California's waiver in 2021.

Executive Order S-3-05 (2005). Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05 on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California's GHG emissions reduction targets, which established the following goals: GHG emissions should be reduced to 2000 levels by 2010;

- GHG emissions should be reduced to 1990 levels by 2020; and
- GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various State agencies to collectively and efficiently reduce GHGs. A biannual progress report must be submitted to the Governor and State Legislature disclosing the progress made

toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of CalEPA leads this CAT made up of representatives from State agencies as well as numerous other boards and departments. The CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State's Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and the Legislature was released in March 2006, which it laid out 46 specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the Executive Order. The most recent report was released in December 2020.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards: Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);

- The Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO_2e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the

supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

CARB has not yet determined what amount of GHG reductions it recommends from local government operations and local land use decisions; however, the Scoping Plan states that land use planning and urban growth decisions will play an important role in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions (meanwhile, CARB is also developing an additional protocol for community emissions). CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined. With regard to land use planning, the Scoping Plan expects an approximately 5.0 MMT CO_2e reduction due to implementation of SB 375.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed the CARB and the CAT to identify a list of "discrete early action GHG reduction measures" that could be adopted and made enforceable by January 1, 2010. On January 18, 2007, Governor Schwarzenegger signed EO S-1-07, further solidifying California's dedication to reducing GHGs by setting a new Low Carbon Fuel Standard (LCFS). This executive order sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs the CARB to consider the LCFS as a discrete early action measure. In 2011, U.S. District Court Judge Lawrence O'Neil issued an injunction preventing implementation of the LCFS, ruling that it is unconstitutional. In 2012, the Ninth Circuit Court of Appeal stayed the District Court's injunction, allowing implementation of the LCFS. The Ninth Circuit decided to uphold the LCFS.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (LCFS, Restrictions on GWP Refrigerants, and Landfill CH_4 Capture).[21] Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code Section 38560.5. The CARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of PFCs from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and SF_6 reductions from the non-electricity sector. The combination of early action measures is estimated to reduce statewide GHG emissions by nearly 16 MMT.[22]

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and sets the groundwork to reach long-term goals

21 CARB. 2007b. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

22 CARB. 2007a. "ARB approves tripling of early action measures required under AB 32" News Release 07-46. October 25.

set forth in EOs S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[23] to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

The 2022 Scoping Plan[24] was approved in December 2022 and assesses progress toward achieving the SB 32 2030 target and laying out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Senate Bill 97 (2007). SB 97, signed by the Governor in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code [PRC], Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA. The California Natural Resources Agency adopted the amendments to the *State CEQA Guidelines* in November 2018, which went into effect in December 2018. The amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

Senate Bill 375 (2008). SB 375, the Sustainable Communities and Climate Protection Act, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. On September 23, 2010, the CARB adopted the vehicular GHG emissions reduction targets that had been developed in consultation with the Metropolitan Planning Organization (MPOs); the targets require a 6 to 15 percent reduction by 2020 and between 13 to 19 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs such as the Fresno Council of Governments will work with local jurisdictions in the development of Sustainable Communities Strategy (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. Pursuant to SB 375, the Central Valley/San Joaquin reduction

[23] CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November.

[24] CARB. 2022a. *2022 Scoping Plan*. November 16. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed January 2023).

targets for per capita vehicular emissions were 6 to 13 percent by 2020 and are 13 to 16 percent by 2035 as shown in Table 4.3.D.

Table 4.3.D: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets

Metropolitan Planning Organization	By 2020 (%)	By 2035 (%)
San Francisco Bay Area	10	19
San Diego	15	19
Sacramento	7	19
Central Valley/San Joaquin	6–13	13–16
Los Angeles/Southern California	8	19

Source: California Air Resources Board (2018).

Executive Order B-30-15 (2015). Governor Jerry Brown signed Executive Order B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. Senate Bill 350 (SB 350), signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the CEC for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved using existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The addition made by this legislation requires state energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016 the Legislature passed, and the Governor signed, SB 32, and Assembly Bill 197 (AB 197). SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward

achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100 (SB 100). On September 10, 2018, Governor Brown signed SB 100, which raises California's Renewables Portfolio Standard (RPS) requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

California Building Efficiency Standards (Title 24, Part 6). The California Building Standards Code, or Title 24 of the California Code of Regulations (CCR) contains the regulations that govern the construction of buildings in California. Within the Building Standards Code, two parts pertain to the incorporation of both energy efficient and green building elements into land use development. Part 6 is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen Code), which sets performance standards for residential and non-residential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The current set of standards were adopted in 2022 and will apply to projects seeking building permits on or after January 1, 2023. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

Cap and Trade. The development of a cap-and-trade program was included as a key reduction measure of the CARB AB 32 Climate Change Scoping Plan. The cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by 2020 and

ultimately achieving an 80 percent reduction from 1990 levels by 2050. The cap-and-trade emissions trading program developed by the CARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the State by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap was set in 2013 at approximately 2 percent below the emissions forecast for 2020. In 2014, the cap declined approximately 2 percent. Beginning in 2015 and continuing through 2020, the cap has been declining approximately 3 percent annually. The CARB administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agriculture and food industries, steel mills, cement companies, and universities. On January 1, 2015, compliance obligation began for distributors of transportation fuels, natural gas, and other fuels. The cap-and-trade program was initially slated to sunset in 2020 but the passage of SB 398 in 2017 extended the program through 2030.[25]

Executive Order N-79-20. EO N-79-20, which was signed by the Governor on September 23, 2020, sets the following goals for the State: 100 percent of in-state sales of new passenger cars and trucks shall be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment in the State shall be zero-emission by 2035, where feasible.

California Integrated Waste Management Act. To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. The resulting 2012 Mandatory Commercial Recycling Regulation requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act. In April 2016, AB 1826 further modified the California Integrated Waste Management Act, requiring businesses that generate a specified amount of organic waste per week to arrange for recycling services for that organic waste in a specified manner. If CalRecycle determines that statewide disposal of organic waste has not been reduced by 50 percent below 2014 levels by 2020, businesses generating more than two cubic yards of organic

[25] CARB. 2014. Cap-and-Trade Program. Website: www.arb.ca.gov/cc/capandtrade/capandtrade.htm (accessed September 2022).

waste per week would be subject to these waste collection requirements. CalRecycle plans to make this assessment in the fall of 2020. Diverting organic waste from landfills reduces emissions of CH_4. This is equivalent to reducing anaerobic decomposition of organic waste that would have otherwise occurred in landfills where organic waste is often buried with other inorganic waste.

Low Carbon Fuel Standard. In January 2007, EO S-01-07 established an LCFS. This executive order calls for a statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and that an LCFS for transportation fuels be established for California. The LCFS applies to all refiners, blenders, producers, or importers ("Providers") of transportation fuels in California, including fuels used by off-road construction equipment. In June 2007, CARB adopted the LCFS under AB 32 pursuant to Health and Safety Code Section 38560.5, and, in April 2009, CARB approved the new rules and carbon intensity reference values with new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels they provide and demonstrate they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher intensity fuels. In response to certain court rulings, CARB re-adopted the LCFS regulation in September 2015, and the LCFS went into effect on January 1, 2016. In 2018, CARB approved amendments to the regulation to readjust carbon intensity benchmarks to meet California's 2030 GHG reductions targets under SB 32. These amendments include opportunities to promote zero emission vehicle (ZEV) adoption, carbon capture and sequestration, and advanced technologies for decarbonization of the transportation sector.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of regulatory standards for vehicle model years 2017 through 2025. The new regulations strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's ZEVs regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the State. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 40 percent fewer GHGs and 75 percent fewer smog-forming emissions than 2012 model year vehicles.

Executive Order B-48-18. In January 2018, Governor Brown signed EO B-48-18 requiring all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025. It specifies that 10,000 of the electric vehicle charging stations should be direct current fast chargers. This order also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the

2015 Hydrogen Station Permitting Guidebook to aid in these efforts. All State entities are required to participate in updating the 2016 Zero-Emissions Vehicle Action Plan to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities. Additionally, all State entities are to support and recommend policies and actions to expand ZEV infrastructure at residential land uses, through the LCFS Program, and recommend how to ensure affordability and accessibility for all drivers.

4.3.2.3 Regional Regulations

San Joaquin Valley Air Pollution Control District. The City of Clovis is located within the San Joaquin Valley Air Basin (SJVAB), which is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD has regulatory authority over certain stationary and industrial GHG emission sources and provides voluntary technical guidance on addressing GHGs for other emission sources in a CEQA context. District initiatives related to GHGs are described below.

Climate Change Action Plan. The San Joaquin Valley Air Pollution Control District Climate Change Action Plan (CCAP) was adopted on August 21, 2008. The CCAP includes suggested best performance standards (BPS) for proposed development projects. However, the SJVAPCD's CCAP was adopted in 2009 and was prepared based on the State's 2020 GHG targets, which are now superseded by State policies (i.e., the 2019 California Green Building Code) and the 2030 GHG targets, established in SB 32.

San Joaquin Valley Carbon Exchange and Rule 2301. The SJVAPCD initiated work on the San Joaquin Valley Carbon Exchange in November 2008. The Exchange was implemented with the adoption of Amendments to Rule 2301 Emission Reduction Credit Banking on January 19, 2012. The purpose of the carbon exchange is to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley.

The SJVAPCD incorporated a method to register voluntary GHG emission reductions with amendments to Rule 2301. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary GHG emission reductions for later use.
- Provide an administrative mechanism for sources to transfer banked GHG emission reductions to others for any use.
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked GHG emission reductions are real, permanent, quantifiable, surplus, and enforceable.

The SJVAPCD is participating in a new program developed by the California Air Pollution Control Officers Association (CAPCOA) to encourage banking and use of GHG reduction credits referred to as the CAPCOA Greenhouse Gas Reduction Exchange (GHGRx). The GHGRx provides information on GHG credit projects within participating air districts. The District is one of the first to have offsets available for trading on the Exchange.

4.3.2.4 Local Regulations

City of Clovis General Plan. The City of Clovis General Plan provides goals, policies, and action items that work to meet or exceed all current and future state-mandated targets for reducing emissions of greenhouse gases. The policies and action items from the General Plan, listed in Table 4.3.E would be applicable to the proposed project.

Table 4.3.E: City of Clovis General Plan Policies Related to Greenhouse Gas Emissions

Policy/Action Item Number	Policy/Action Item
Air Quality Element	
Policy 1.1	**Land use and transportation.** Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
Policy 1.6	**Alternative fuel infrastructure**. Encourage public and private activity and employment centers to incorporate electric charging and alternative fuel stations.
Policy 2.1	**Regional coordination.** Support regional efforts to reduce air pollution (criteria air pollutants and greenhouse gas emissions) and collaborate with other agencies to improve air quality at the emission source and reduce vehicle miles traveled.
Policy 2.2	**Cross-jurisdictional issues.** Collaborate with regional agencies and surrounding jurisdictions to address cross-jurisdictional transportation and air quality issues.
Policy 2.3	**Valleywide programs.** Establish parallel air quality programs and implementation measures with other communities across the San Joaquin Valley.
Policy 2.4	**Public participation.** Encourage participation of local citizens, the business community, and interested groups and individuals in air quality planning and implementation.
Policy 2.6	**Innovative mitigation.** Encourage innovative mitigation measures to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties.

Source: City of Clovis General Plan (August 2014).

4.3.3 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to greenhouse gas emissions that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds to determine if an impact is significant. The latter part of this section presents the impacts associated with implementation of the proposed project and the recommended mitigation measures, if required. Mitigation measures are recommended, as appropriate, for significant impacts to eliminate or reduce them to a less-than-significant level. Cumulative impacts are also addressed.

4.3.3.1 Significance Criteria

Based on CEQA Guidelines Appendix G, the proposed project would have a significant impact related to greenhouse gas emissions if it would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Section 15064.4 of the *State CEQA Guidelines* states that: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions, or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Neither the City of Clovis, nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, this analysis evaluates the GHG emissions based on the project's consistency with State GHG reduction goals.

4.3.3.2 Project Impacts

a. **Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. The sections below discuss the 71.54 acre project's potential impact related to the release of GHG emissions for both construction and project operation.

Construction GHG Emissions. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The City of Clovis does not have an adopted threshold of significance for construction related GHG emissions. However, emissions that would occur during construction were quantified and are disclosed for informational purposes. Using CalEEMod, it is estimated that construction of the proposed project would generate approximately 1,732.0 metric tons of CO_2e. Table 4.3.F lists the annual GHG emissions (details are provided in the CalEEMod output in Appendix D).

Table 4.3.F: Construction Greenhouse Gas Emissions

Construction Year	Annual Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	CO_2e
2023	32.8	<0.1	<0.1	33.0
2024	785.0	<0.1	<0.1	797.0
2025	532.0	<0.1	<0.1	540.0
2026	357.0	<0.1	<0.1	362.0
Total Construction Emissions				**1,732.0**

Source: Compiled by LSA (February 2023).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
N_2O = nitrous oxide

Even though the City of Clovis does not have any adopted GHG emission thresholds, the emission results shown in Table 4.3.F would be temporary in nature, and would only occur for the duration construction.

Operational GHG Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include project-generated vehicle trips to and from the project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the project. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project-generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Emissions estimates for operation of the proposed project were calculated using CalEEMod.

Table 4.3.G shows the emissions sources by category; mobile source emissions are the largest category, at approximately 83 percent of total CO_2e emissions, followed by energy source emissions at approximately 8 percent of the total, area source emissions at approximately 6 percent of the total, waste source emissions at approximately 3 percent of the total, and water source emissions with less than 1 percent of the total emissions. CalEEMod output sheets are included in Appendix D.

Table 4.3.G: Operational Greenhouse Gas Emissions

Emissions Category	Operational Emissions (Metric Tons per Year)				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total
Mobile Source	5,243.0	0.3	0.3	5,343.0	83
Area Source	350.0	0.6	<0.1	364.0	6
Energy Source	512.0	0.1	<0.1	517.0	8
Water Source	17.2	0.8	<0.1	43.2	<1
Waste Source	55.4	5.5	0.0	194.0	3
Total Operational				**6,461.2**	**100.0**

Source: Compiled by LSA (February 2023).
Note = Some values may not appear to add up correctly due to rounding.
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
N_2O = nitrous oxide

As shown in Table 4.3.G, the proposed project would generate approximately 6,461.2 metric tons of CO_2e annually. The proposed project would consist in the construction of a 590-lot residential development for single-family residences. Based on the City's current Housing Element,[26] the average number of persons residing in each household in Clovis is estimated to be 2.85 persons. As a result, following construction and occupation of the proposed project, it is estimated that approximately 1,682 residents would live within the proposed 590 residential units within the project site. The proposed project would not accommodate new employees; therefore, the total service population would be 1,682 people (residents plus employees). As such, the proposed project would result in 3.8 metric tons of CO_2e per year per service population.

The SJVAPCD has not established a numeric threshold for GHG emissions. As discussed, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). Neither the City of Clovis, nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, the proposed project was analyzed for consistency with the 2022 Scoping Plan.

The 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions in Appendix D, Local Actions[27], of the 2022 Scoping Plan. As discussed in Appendix D of the 2022 Scoping Plan, absent consistency with an adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP, the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing. With the implementation of recommended mitigation, the proposed project is generally consistent with the key project attributes recommended in the Scoping Plan, as further discussed below.

26 City of Clovis. 2016. Fresno Multi-Jurisdictional 2015-2023 Housing Element. Website: https://cityofclovis.com/wp-content/uploads/2019/02/Clovis-Housing-Element-1.pdf (accessed September 21, 2022). April.

27 CARB. 2022b. *2022 Scoping Plan Appendix D Local Actions.* November. Website: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf (accessed February 2023).

The 2022 Scoping Plan recommends that a residential or mixed-use project provide EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval. CALGreen requires provision of infrastructure to accommodate EV chargers for new single family and attached dwelling units/town houses. It is not yet known whether the proposed project would include electric vehicle charging; therefore, implementation of Mitigation Measure GHG-1 would be required to ensure the proposed project would provide electric vehicle charging. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this key project attribute.

The Scoping Plan further recommends that a proposed project be located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer). The proposed project is located in close proximity to other single-family residential uses that are presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer). The project site and adjacent parcels have been identified for future development in the City of Clovis General Plan. As described in Section 4.5 Transportation, the project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold. However, as further discussed in Section 4.5, Transportation, as per information provided by the Project Applicant, the project intends to implement project design features that could help reduce project VMT. The project design features would include the following: pedestrian infrastructure; improve street connectivity; bicycle infrastructure/improvements; and provide electric vehicle charging capabilities (as required my Mitigation Measure GHG-1). The project would be generally consistent with the goals of the Scoping Plan with the implementation of the mitigation measure and design features.

CARB guidance recommends that, to be consistent with State goals, a proposed project should not result in the loss or conversion of natural and working lands. The project site is zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. In addition, the project site contains APN 556-030-14S, which is currently under a Williamson Act contract. Following approval of the proposed project and certification of the EIR, the City and Project Applicant will apply to have the project site and annexation area annexed into the City of Clovis, and the project site will be pre-zoned to the City of Clovis' R-1 Zone District (R-1-PRD). Additionally, cancellation of the Williamson Act contract would occur prior to issuance of building permits, pursuant to Mitigation Measure AG-2. Although the project would result in the conversion of farmland, as confirmed by the site-specific LESA Model prepared for the project, this impact would be a less than significant impact. Additionally, conversion of farmland through development of the project site was already identified in the City of Clovis General Plan EIR. The project would result in no new impacts related to the loss or conversion of natural and working lands than those already identified in the City's General Plan. As such, implementation of the proposed project would not result in significant impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. Therefore, the proposed project would be consistent with this key project attribute.

The proposed project would also be generally consistent with the transit density criteria recommended in the Scoping Plan. The proposed project would include an approximately 20-foot-

wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and landscaped areas would be included along the western side of North Baron Avenue along the project site. An approximately 16-foot-wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and landscaped area that is reduced from the Heritage Grove Neighborhood Boulevard Street section would be included along the eastern side of North Baron Avenue. Through the implementation of these features, the proposed project would support the ability to use alternative modes of transportation. As such, the project would promote initiatives to reduce vehicle trips and VMT and would increase the use of alternate means of transportation.

The Scoping Plan recommends that a proposed project reduce parking requirements by eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or providing residential parking supply at a ratio of less than one parking space per dwelling unit; or for multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit. The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots. Phase 1 would include the construction of approximately 44 parking spaces and Phase 3 would include the construction of approximately 91 parking spaces. Based on the minimal parking spaces when compared to the number of residential units, the proposed project would be consistent with this key project attribute.

An additional State goal is to advance the availability of fair housing. The proposed project would help to address the California housing shortage and would increase the number of residences available to residents of the San Joaquin Valley. Through increasing housing opportunities in this historically disadvantaged area, the proposed project would be consistent with State goals. The proposed project would include the removal of one existing 2,679 square-foot dwelling unit and garage, an existing propane tank, a 2,000 square-foot pole barn, two sheds, and an existing driveway on the project site. The removal of these structures would not result in a net loss of existing affordable uses and is therefore consistent with the goals of the 2022 Scoping Plan.

Finally, consistent with the recommendations in the 2022 Scoping Plan, the proposed project would be all-electric and would not include natural gas. Based on the Bay Area Air Quality Management District's *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*[28], the elimination of natural gas in new development would help projects implement their "fair share" of achieving long-term 2045 carbon neutrality consistent with State goals. As such, if a project does not utilize natural gas, a lead agency can conclude that it would be consistent with achieving the 2045 neutrality goal and will not have a cumulative considerable impact on climate change.

With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related to EV charging

[28] Bay Area Air Quality Management District (BAAQMD). 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans.* April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en (accessed May 2023).

requirements. As demonstrated above, the proposed project is generally consistent with the key project attributes recommended by CARB for a residential project to have a less than significant impact due to GHG emissions. The implementation of Mitigation Measure GHG-1 would ensure consistency with the 2022 Scoping Plan key project attribute related to EV charging requirements.

Impact GHG-1: The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measure GHG-1 In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs.

Level of Significance With Mitigation**:** Less than significant with mitigation.

b. **Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

The SJVAPCD has adopted a CCAP, which includes suggested best performance standards (BPS) for proposed development projects. However, the SJVAPCD's CCAP was adopted in 2009 and was prepared based on the State's 2020 GHG targets, which are now superseded by State policies (i.e., the 2022 California Green Building Code) and the 2030 GHG targets, established in SB 32. As mentioned above, the City of Clovis has not developed or adopted numeric GHG significance thresholds. Therefore, this analysis evaluates the GHG emissions based on the project's consistency with State GHG reduction goals.

The proposed project was analyzed for consistency with the goals of the 2022 Scoping Plan.

Scoping Plan. The following discussion evaluates the proposed project according to the goals of the 2022 Scoping Plan, EO B-30-15, SB 32, and AB 197.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy

deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As discussed above, the proposed project would comply with the CALGreen Code, regarding energy conservation and green building standards. The proposed project would also incorporate sustainable design features, including, but not limited, to installation of energy-efficient light fixtures, high-efficiency plumbing fixtures, and rooftop PV systems and solar panels, consistent with the requirements of Title 24. The proposed project would receive electricity from PG&E, which is required to reduce GHG emissions by increasing procurement from eligible renewable energy by set target years in support of State goals for GHG emissions reductions and carbon neutrality by 2045. Therefore, the proposed project would comply with applicable energy measures included in the Scoping Plan.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would comply with the CALGreen Code, which includes a variety of different measures, including the reduction of wastewater and water use. In addition, the proposed project would be required to comply with the California Model Water Efficient Landscape Ordinance. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. Vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The proposed project is located in the vicinity of several other housing developments and would offer pedestrian and bicycle connectivity and parkways along nearby roadways to encourage the use of alternative transportation, thereby helping to reduce VMTs. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

Furthermore, the proposed project would directly increase the availability of housing opportunities in the San Joaquin Valley, helping to address California's housing shortage and increasing the total number of residences in the State. The proposed project would therefore support addressing the State goals of increasing the availability of housing to Californian residents.

As demonstrated above, and as further discussed in the proceeding section, the proposed project would be consistent with the 2022 Scoping Plan, and would therefore be consistent with other local and State plans for reducing GHGs.

Impact GHG-2: The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Level of Significance Without Mitigation: Less Than Significant Impact.

4.3.3.3 Cumulative Impacts

GHG impacts are by their nature cumulative impacts. Localized impacts of climate change are the result of the cumulative impact of global emissions. The combined benefits of reductions achieved by all levels of government help to slow or reverse the growth in GHG emissions. In the absence of comprehensive international agreements on appropriate levels of reductions achieved by each country, another measure of cumulative contribution is required. This serves to define the State's share of the reductions regardless of the activities or lack of activities of other areas of the U.S. or the world. Therefore, a cumulative threshold based on consistency with State targets and actions to reduce GHGs is an appropriate standard of comparison for significance determinations.

As mentioned above, neither the City of Clovis nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, the proposed project was analyzed for consistency with State GHG reduction goals. Based on the analysis presented above, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related building electrification, and with implementation of Mitigation Measure GHG-1, the EV charging requirements. Therefore, the proposed project would have a less than significant impact after the incorporation of mitigation measures.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measure: Refer to Mitigation Measures GHG-1.

Level of Significance With Mitigation: Less Than Significant Impact.

4.4 NOISE

This section describes existing noise and vibration conditions, sets forth criteria for determining the significance of noise and vibration impacts, and estimates the likely noise and vibration impacts that would result from construction and operation of the proposed project. Mitigation measures are identified, as necessary, to address significant environmental impacts.

4.4.1 Environmental Setting

The setting section begins with an introduction to several key concepts and terms that are used in evaluating noise. This section also includes a description of current noise sources that affect the project site and the noise conditions that are experienced in the project site vicinity.

4.4.1.1 Characteristics of Sound

Noise is usually defined as unwanted sound and consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally related to annoyance, while loudness can affect our ability to hear through hearing damage. Pitch is the number of complete vibrations, or cycles per second, of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound pressure refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be measured precisely with instruments. The project analysis defines the noise environment of the planning area in terms of sound pressure levels and the project's effect on sensitive land uses.

4.4.1.2 Measurement of Sound

Sound intensity is measured with the A-weighted decibel scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound, similar to the human ear's de-emphasis of these frequencies. Decibels, unlike linear units (e.g., inches or pounds), are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) is 10 times more intense than 1 dB, 20 dB is 100 times more intense than 1 dB, and 30 dB is 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the sound's loudness. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels generate from a source, and their decibel level decreases as the distance from that source increases. Sound levels dissipate exponentially with distance from their noise sources. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is

produced by a line source (e.g., highway traffic or railroad operations) the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source sound levels decrease 4.5 dB for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noise occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the relaxation and sleeping hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

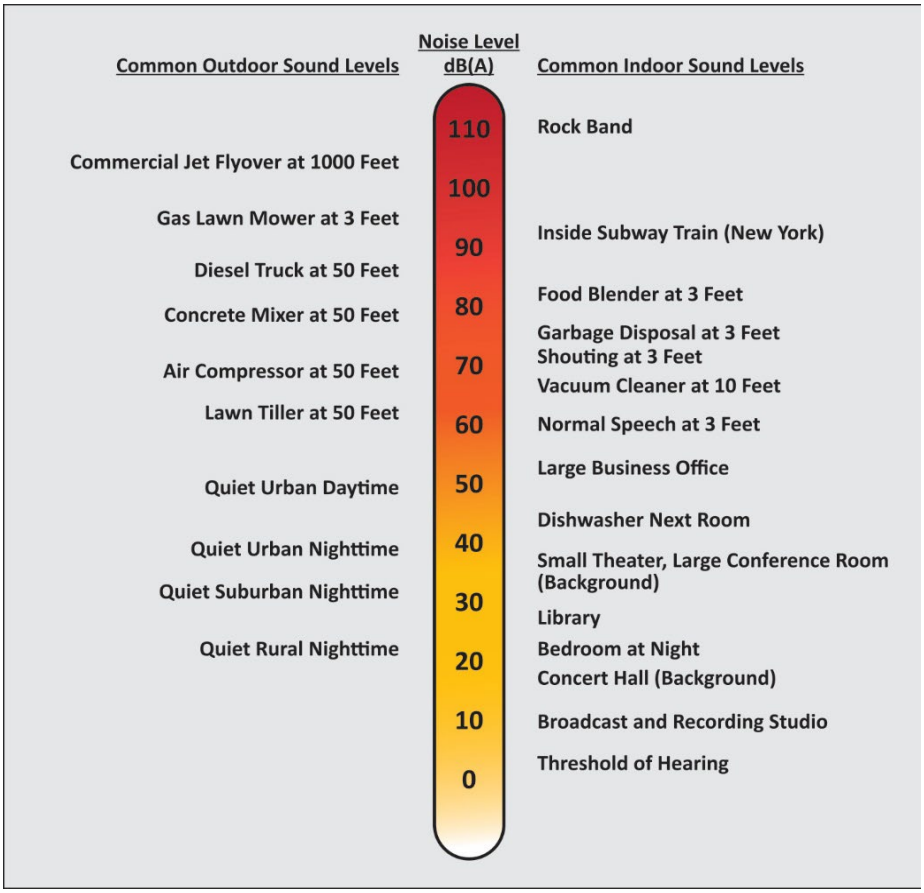
Table 4.4.A contains a list of typical acoustical terms and definitions. Figure 4.4-1 shows representative outdoor and indoor noise levels in units of dBA.

Table 4.4.A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of five decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris, Cyril 1998).

Figure 4.4-1: Typical A-Weighted Sound Levels



Source: Compiled by LSA (2016).

4.4.1.3 Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to sound levels higher than 85 dBA. Exposure to high sound levels affects the entire system, with prolonged sound exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of sound exposure above 90 dBA would result in permanent cell damage. When the sound level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of sound is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by a feeling of pain in the ear (i.e., the threshold of pain). A sound level of 160–165 dBA will result in dizziness or a loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas.

4.4.1.4 Fundamentals of Vibration

Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items sitting on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile-driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 feet. When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, both construction of the project and the freight train operations could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile-driving to cause vibration of sufficient amplitudes to damage nearby buildings. Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS is best for characterizing human response to building vibration, and PPV is used to characterize potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where "L_v" is the vibration velocity in decibels (VdB), "V" is the RMS velocity amplitude, and "V_{ref}" is the reference velocity amplitude, or 1 x 10^{-6} inches/second (in/sec) used in the United States. Table 4.4.B illustrates human response to various vibration levels, as described in the Federal Transit Administration's *(FTA) Noise and Vibration Impact Assessment Manual* (FTA Manual).[1]

[1] Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual.* Office of Planning and Environment. Report No. 0123. September.

Table 4.4.B: Human Response to Different Levels of Ground-Borne Noise and Vibration

Vibration Velocity Level	Noise Level		Human Response
	Low Frequency[1]	Mid Frequency[2]	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound is usually inaudible; mid-frequency sound is excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level unacceptable. Low-frequency noise is acceptable for sleeping areas; mid-frequency noise is annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration is acceptable only if there are an infrequent number of events per day. Low-frequency noise is unacceptable for sleeping areas; mid-frequency noise is unacceptable even for infrequent events with institutional land uses, such as schools and churches.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] Approximate noise level when vibration spectrum peak is near 30 Hz.
[2] Approximate noise level when vibration spectrum peak is near 60 Hz.
dBA = A-weighted decibels
FTA = Federal Transit Administration
Hz = Hertz
VdB = vibration velocity decibels

Factors that influence ground-borne vibration and noise include:

- **Vibration Source:** Vehicle suspension, wheel types and condition, railroad track/roadway surface, railroad track support system, speed, transit structure, and depth of vibration source.
- **Vibration Path:** Soil type, rock layers, soil layering, depth to water table, and frost depth.
- **Vibration Receiver:** Foundation type, building construction, and acoustical absorption.

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of ground-borne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock.

Experience with ground-borne vibration indicates (1) vibration propagation is more efficient in stiff, clay soils than in loose, sandy soils; and (2) shallow rock seems to concentrate the vibration energy close to the surface and can result in ground-borne vibration problems at large distances from a railroad track. Factors such as layering of the soil and the depth to the water table can have significant effects on the propagation of ground-borne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

4.4.1.5 Overview of the Existing Noise Environment

The ambient noise environment in the City of Clovis is affected by a variety of noise sources, including mobile source noise and stationary noise. As indicated in the City's General Plan EIR, the most significant mobile sources of noise in the City include noise created by aircraft takeoffs and landings), and State Route 168 and other major roadways. Stationary noise sources in the City

include operation of commercial, warehousing, and industrial uses and schools. Noise generated at construction sites is also a source of noise in Clovis. The following section describes the existing noise environment and identifies the primary noise sources in the vicinity of the project site.

Existing Traffic Noise. Motor vehicles with their distinctive noise characteristics are a major source of noise in the City of Clovis. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer.

Existing roadway traffic noise levels in the project area were assessed using the Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108). Traffic volumes were obtained from the proposed project's Transportation Impact Analysis (Appendix G). This model uses a typical vehicle mix for urban/suburban areas in California and requires parameters, including traffic volumes, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the day-night average noise level (L_{dn}) values. Existing traffic noise contours along modeled roadway segments are shown in Table 4.4.C.

Existing Aircraft Noise. There are currently three airports near the City of Clovis, which are all within the City of Fresno: Fresno Yosemite International Airport, Fresno-Chandler Executive Airport, and Sierra Sky Park Airport. Commercial jet aircraft operations are limited to Fresno Yosemite International Airport. The Air National Guard is also stationed there and operates military jets and other aircraft. Private and commercial operations with smaller aircraft use Fresno Chandler Downtown Airport, while only small private aircraft use Sierra Sky Park Airport. The Fresno Yosemite International Airport is located approximately 6.1 miles southwest of the project site, the Sierra Sky Airport, located approximately 9.3 miles southwest of the project site, and the Fresno Chandler Executive Airport, located approximately 11.3 miles southwest of the project site. Each of these airports is included in the Fresno County Airport Land Use Compatibility Plan (ALUCP), which guides approximate compatible land uses. The City of Clovis General Plan, other City land use plans, and all City land use decisions must be compatible with the adopted ALUCP. The ALUCP includes CNEL noise contours based on projected airport and aircraft operations. The project site is not within an ALUCP.[2]

Existing Railroad Noise. There are currently no railroad lines in the City of Clovis. The closest rail line to the project site is approximately 9 miles southwest of the project site. There are two major rail lines that traverse the nearby City of Fresno, including the Union Pacific Railroad line, which is generally runs along State Route (SR) 99, and the BNSF Railway, which diverges from SR-99 in the southwest and travels through downtown Fresno (behind Fresno City Hall) to the northwest. Given the distance of the rail lines to the project site, railroad noise does not impact the City of Clovis.

[2] City of Clovis. 2014. General Plan and Development Code Update Draft PEIR. Noise. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-12-Noise.pdf (accessed January 2023).

Table 4.4.C: Existing Traffic Noise Levels

Roadway Segment	Average Daily Trips	Centerline to 70 dBA CNEL (feet)	Centerline to 65 dBA CNEL (feet)	Centerline to 60 dBA CNEL (feet)	CNEL (dBA) 50 Feet From Outermost Lane
International Avenue between Willow Avenue and Minnewawa Avenue	1,620	< 50	< 50	< 50	59.0
Behymer Avenue between Willow Avenue and Minnewawa Avenue	2,360	< 50	< 50	61	60.6
Behymer Avenue between Minnewawa Avenue and Clovis Avenue	3,720	< 50	< 50	83	62.6
Behymer Avenue between Clovis Avenue and Baron Avenue	3,720	< 50	< 50	83	62.6
Shepherd Avenue between Willow Avenue and Minnewawa Avenue	10,330	< 50	92	196	67.1
Shepherd Avenue between Minnewawa Avenue and Clovis Avenue	9,420	< 50	87	184	66.7
Shepherd Avenue between Clovis Avenue and Sunnyside Avenue	8,060	< 50	79	166	66.0
Shepherd Avenue between Sunnyside Avenue and Fowler Avenue	7,040	< 50	71	152	65.9
Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue	37,560	102	189	390	69.3
Willow Avenue between International Avenue and Behymer Avenue	8,350	< 50	86	173	65.0
Willow Avenue between Behymer Avenue and Shepherd Avenue	14,520	64	119	247	67.4
Minnewawa Avenue between International Avenue and Behymer Avenue	6,020	< 50	53	114	64.7
Minnewawa Avenue between Behymer Avenue and Shepherd Avenue	4,830	< 50	< 50	99	63.7
Baron Avenue between Behymer Avenue and Perrin Avenue	0	< 50	< 50	< 50	20.1
Baron Avenue between Perrin Avenue and Clovis Avenue	0	< 50	< 50	< 50	20.1
Clovis Avenue between Baron Avenue and Shepherd Avenue	1,410	< 50	< 50	< 50	56.9
Clovis Avenue between Shepherd Avenue and Teague Avenue	4,570	< 50	< 50	98	62.0
Clovis Avenue between Teague Avenue and Nees Avenue	8,220	< 50	69	142	64.5
Clovis Avenue between Nees Avenue and Alluvial Avenue	10,870	< 50	82	171	65.7
Clovis Avenue between Alluvial Avenue and Herndon Avenue	17,260	< 50	109	231	67.8

Source: Compiled by LSA (February 2023).
Note: Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels

Existing Sensitive Land Uses. Sensitive receptors include residences, schools, hospitals, churches, and similar uses that are sensitive to noise. Construction and operation associated with the proposed project could adversely affect nearby noise-sensitive land uses. The closest sensitive receptors include single-family residential uses located approximately 55 feet east of the project site along Behymer Avenue, approximately 230 feet west of the project site, and approximately 530 feet southeast of the project site along Baron Avenue. The closest existing schools to the project site are the Woods Elementary School, located approximately 0.75 miles south of the project site, and Buchanan High School, approximately 1.08 miles southwest of the project site.

Stationary Noise Sources. Stationary noise sources can also have an effect on the population, and unlike mobile, transportation-related noise sources, these sources generally have a more permanent and consistent impact on people. Stationary noise sources involve various uses and activities, including various industrial uses, commercial operations, agricultural production, school playgrounds, high school football games, on-site heating, ventilation, and air conditioning (HVAC) units, generators, lawn maintenance equipment, and swimming pool pumps.

4.4.2 Regulatory Setting

4.4.2.1 Federal Regulations

United States Environmental Protection Agency. In 1972, Congress enacted the United States Noise Control Act. This act authorized the United States Environmental Protection Agency (USEPA) to publish descriptive data on the effects of noise and establish levels of sound "requisite to protect the public welfare with an adequate margin of safety." These levels are separated into health (hearing loss levels) and welfare (annoyance levels). For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to 70 dBA during a 24-hour period of time. At 55 dBA L_{dn}, 95 percent sentence clarity (intelligibility) may be expected at 11 ft, with no community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance. The USEPA cautions that these identified levels are guidelines, not standards.[3]

Federal Transit Administration. Vibration standards included in the FTA Manual are used in this analysis for ground-borne vibration impacts on human annoyance, as shown in Table 4.4.D. The criteria presented in Table 4.4.D account for the variations in project types, which differ widely among projects.

The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table 4.4.E lists the potential vibration building damage criteria associated with construction activities, as suggested in the FTA Manual.

[3] United States Environmental Protection Agency (USEPA). 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*.

Table 4.4.D: Interpretation of Vibration Criteria for Detailed Analysis

Land Use	Max L_v (VdB)[1]	Description of Use
Workshop	90	Vibration that is distinctly felt. Appropriate for workshops and similar areas not as sensitive to vibration.
Office	84	Vibration that can be felt. Appropriate for offices and similar areas not as sensitive to vibration.
Residential Day	78	Vibration that is barely felt. Adequate for computer equipment and low-power optical microscopes (up to 20×).
Residential Night and Operating Rooms	72	Vibration is not felt, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100×) and other equipment of low sensitivity.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] As measured in 1/3-Octave bands of frequency over the frequency range 8 to 80 Hertz.
FTA = Federal Transit Administration
Max = maximum
L_V = velocity in decibels
VdB = vibration velocity decibels

Table 4.4.E: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate L_V (VdB)[1]
Reinforced concrete, steel, or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS vibration velocity in decibels (VdB) re 1 µin/sec.
µin/sec = microinches per second
FTA = Federal Transit Administration
in/sec = inch/inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

FTA Manual guidelines show that for potential annoyance thresholds, a level of up to 78 VdB is acceptable during the daytime hours at residential uses while a level of 87 VdB is appropriate for office uses, and a level of 90 VdB is appropriate for workshop uses. To assess damage potential, a vibration level of up to 102 VdB (equivalent to 0.5 in/sec in PPV) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster) and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction building vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

4.4.2.2 State Regulations

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the *State Noise Insulation Standard*, it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A.

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses.

4.4.2.3 Local Regulations

City of Clovis General Plan. The City of Clovis General Plan provides goals, policies, and action items that work to protect residents from the harmful effects of exposure to excessive noise. Table 4.4.F includes policies and action items from the General Plan that would be applicable to the proposed project, and Table 4.4.G shows the City's Land Use and Noise Compatibility Matrix.

Table 4.4.F: City of Clovis General Plan Policies Related to Noise

Policy/Action Item Number	Policy
Environmental Safety Element	
Policy 3.1	Land use compatibility. Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in Table 4.4.G Noise Level Exposure and Land Use Compatibility Matrix and the city's noise ordinance.
Policy 3.2	Land use and traffic patterns. Discourage land use and traffic patterns that would expose sensitive land uses or noise-sensitive areas to unacceptable noise levels
Policy 3.3	New residential. When new residential development is proposed adjacent to land designated for industrial or commercial uses, require the proposed development to assess potential noise impacts and fund feasible noise-related mitigation measures.
Policy 3.4	Acoustical study. Require an acoustical study for proposed projects that have the potential to exceed acceptable noise thresholds or are exposed to existing or future noise levels in excess of the thresholds in the city's noise ordinance.
Policy 3.5	Site and building design. Minimize noise impacts by requiring appropriate site, circulation, equipment, and building design, and sound walls, landscaping, and other buffers.
Policy 3.6	Noise impacts. Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.
Policy 3.7	Mixed-use buildings. Require that mixed-use structures be designed to prevent transfer of noise and vibration between uses.
Policy 3.14	Control sound at the source. Prioritize using noise mitigation measures to control sound at the source before buffers, soundwalls, and other perimeter measures.

Source: City of Clovis General Plan (August 2014).

Table 4.4.G: Land Use and Noise Compatibility Matrix

Land Uses	Energy Average (CNEL)						
Example Land Uses	**<**	**55**	**60**	**65**	**70**	**75**	**80>**
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Source: *General Plan City of Clovis. Table ES-2*. (City of Clovis, August 2014).
Notes:
Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.
Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.
Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

City of Clovis Municipal Code. The City's Municipal Code contains noise standards and regulation for different activities and land uses in the City. See Section 9.22.080 of the Municipal Code for the City of Clovis Noise ordinance. Section 9.22.080 (D) sets exterior noise standards as shown in Table 4.4.H and interior noise standards as shown in Table 4.4.I.

Table 4.4.H: City of Clovis Maximum Exterior Noise Standards

Noise Zone	Type of Land Use	Allowable Exterior Noise Level (15-Minute L_{eq}), dBA	
		Daytime (7:00 AM to 10:00 PM)	**Nighttime (10:00 PM to 7:00 AM)**
I	Single-, two- or multiple-family residential	55	50
II	Commercial	65	60
III	Residential portions of mixed-use properties	60	50
IV	Industrial or manufacturing	70	70

Source: City of Clovis Municipal Code
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

Table 4.4.I: City of Clovis Maximum Interior Noise Standards

Noise Zone	Type of Land Use	Allowable Interior Noise Level (15-Minute L_{eq}), dBA	
		Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
I	Residential	45	40
II	Administrative/professional office	50	-
III	Residential portions of mixed-use properties	45	40

Source: City of Clovis Municipal Code
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

In addition, pursuant to the City of Clovis Municipal Code Section 5.27.604, construction activities are permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1 through September 15, permitted construction activity may commence after 6:00 a.m. Monday through Friday.[4]

4.4.3 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to noise that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds to determine if an impact is significant. The latter part of this section presents the impacts associated with implementation of the proposed project and the recommended mitigation measures, if required. Mitigation measures are recommended, as appropriate, for significant impacts to eliminate or reduce them to a less-than-significant level. Cumulative impacts are also addressed.

4.4.3.1 Significance Criteria

Based on *State CEQA Guidelines* Appendix G, the proposed project would have a significant impact related to noise if it would:

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

b. Generate excessive groundborne vibration or groundborne noise levels;

c. For a project located within the vicinity of a private airstrip an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

[4] City of Clovis. 2021. Clovis Municipal Code. Title 5: Public Welfare, Morals and Conduct. Chapter 5.27: Nuisances. Website: https://www.codepublishing.com/CA/Clovis/#!/Clovis05/Clovis0527.html#5.27.604 (accessed June 21, 2022).

4.4.3.2 Project Impacts

The following discussion describes the potential impacts related to noise that could result from implementation of the proposed project.

a. **Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

The following section describes the short-term construction and long-term operational noise impacts associated with implementation of the proposed project.

Short-Term Construction Noise Impacts. Project construction would result in short-term noise impacts on the nearby sensitive receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from 1 day to several days, depending on the phase of construction. The level and types of noise impacts that would occur during construction are described below.

Construction would result in short-term noise impacts on the nearby sensitive receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase of construction. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grading and site preparation activities. Table 4.4.J lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the FHWA Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would no longer occur once construction of the project is completed.

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to sites, which would incrementally increase noise levels on roads leading to the site.

The second type of short-term noise impact is related to noise generated during grading and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 4.4.J: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
L_{max} = maximum instantaneous sound level

Table 4.4.J lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 87 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders.

Specific construction details (e.g., construction fleet activities) are not yet known, therefore, this analysis assumes a crane, forklift, tractor, welder, and compressor would be operating simultaneously during construction of the proposed project. Based on the typical construction equipment noise levels shown in Table 4.4.J, noise levels associated with a crane, forklift, tractor, welder, and compressor operating simultaneously would be approximately 87 dBA L_{max} at 50 feet.

Noise-sensitive receptors include residences, schools, hospitals, churches, and similar uses that are sensitive to noise. As discussed above, the closest sensitive receptors include single-family residential uses located approximately 55 feet east of the project site along Behymer Avenue, approximately 230 feet west of the project site, and approximately 530 southeast of the project site along Baron Avenue. Construction of the proposed project could adversely affect these nearby

noise-sensitive land uses. At 55 feet, there would be a decrease of approximately 1 dBA from the increased distance compared to the noise level measured at 50 feet from the active construction area. Therefore, the closest sensitive receptor may be subject to short-term maximum construction noise reaching 86 dBA L_{max} during construction. However, construction equipment would operate at various locations within the 71.54-acre project site and would only generate this maximum noise level when operations occur closest to the receptor.

As identified above, pursuant to the City of Clovis Municipal Code Section 5.27.604, construction noises are permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday. While construction noise impacts are exempt from specific noise levels limits under the City's Municipal Code, project construction noise would result in a potentially significant impact at the nearest off-site sensitive residential use. As such, Mitigation Measure NOI-1.1 would be required to ensure that all construction equipment, fixed or mobile, is equipped with properly operating and maintained mufflers consistent with manufacturers' standards, which would reduce the potential impacts associated with construction equipment. Additionally, Mitigation Measure NOI-1.1 requires the project to designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

With implementation of Mitigation Measure NOI-1.1, the proposed project would result in a less than significant impact associated with the generation of a substantial temporary increase in ambient noise levels in the vicinity during construction.

Long-Term Operational Noise Impacts. Noise-generating uses associated with development of the proposed project would typically include vehicle traffic and operational noise, such as HVAC and pool pump equipment.

> ***Traffic Noise Impacts.*** Traffic noise levels under the existing conditions and by phase were assessed using the FHWA Highway Traffic Noise Prediction Model (FHWA RD 77-108). Traffic volumes were obtained from the proposed project's Transportation Impact Analysis (Appendix G). Existing, Near-Term (2026), and Cumulative (2046) without and with project traffic noise levels at 50 feet from the centerline of the outermost travel lane for each roadway segment in the project area are shown in Table 4.4.K. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between traffic and the location where the noise contours are drawn.
>
> Appendix F provides the specific assumptions used in developing these noise levels and model printouts.

Table 4.4.K: Traffic Noise Levels Without and With Proposed Project

Roadway Segment	Existing		Existing With Project			Near-Term (2026)		Near-Term (2026) With Project			Cumulative (2026)		Cumulative (2026) With Project		
	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	Increase from Existing Conditions	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	Increase from Near-Term Conditions	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	Increase from Cumulative Conditions
International Avenue between Willow Avenue and Minnewawa Avenue	1,620	59.0	1,670	59.1	0.1	1,900	59.7	1,950	59.8	0.1	4,420	63.3	4,470	63.4	0.1
Behymer Avenue between Willow Avenue and Minnewawa Avenue	2,360	60.6	2,630	61.1	0.5	2,830	61.4	3,100	61.8	0.4	9,264	66.6	9,534	66.7	0.1
Behymer Avenue between Minnewawa Avenue and Clovis Avenue	3,720	62.6	4,170	63.1	0.5	4,140	63.1	4,590	63.5	0.4	9,833	66.8	10,283	67.0	0.2
Behymer Avenue between Clovis Avenue and Baron Avenue	3,720	62.6	4,170	63.1	0.5	4,060	63.0	4,510	63.4	0.4	10,482	67.1	10,932	67.3	0.2
Shepherd Avenue between Willow Avenue and Minnewawa Avenue	10,330	67.1	11,330	67.5	0.4	26,560	71.2	27,560	71.4	0.2	27,817	71.4	28,817	71.6	0.2
Shepherd Avenue between Minnewawa Avenue and Clovis Avenue	9,420	66.7	10,870	67.3	0.6	23,160	70.6	24,610	70.9	0.3	24,210	70.8	25,660	71.1	0.3
Shepherd Avenue between Clovis Avenue and Sunnyside Avenue	8,060	66.0	8,780	66.4	0.4	23,160	70.6	23,880	70.7	0.1	24,138	70.8	24,858	70.9	0.1
Shepherd Avenue between Sunnyside Avenue and Fowler Avenue	7,040	65.9	7,600	66.3	0.4	19,270	70.3	19,830	70.4	0.1	20,066	70.5	20,626	70.6	0.1
Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue	37,560	69.3	39,010	69.5	0.2	43,460	69.9	44,910	70.1	0.2	47,547	70.3	48,997	70.5	0.2
Willow Avenue between International Avenue and Behymer Avenue	8,350	65.0	8,840	65.3	0.3	14,310	67.4	14,800	67.5	0.1	14,994	67.6	15,484	67.7	0.1
Willow Avenue between Behymer Avenue and Shepherd Avenue	14,520	67.4	14,790	67.5	0.1	34,310	71.2	34,580	71.2	0.0	35,997	71.4	36,267	71.4	0.0
Minnewawa Avenue between International Avenue and Behymer Avenue	6,020	64.7	6,180	64.8	0.1	6,890	65.3	7,050	65.4	0.1	11,451	67.5	11,611	67.5	0.0
Minnewawa Avenue between Behymer Avenue and Shepherd Avenue	4,830	63.7	4,830	63.7	0.0	14,220	68.4	14,220	68.4	0.0	15,612	68.8	15,612	68.8	0.0
Baron Avenue between Behymer Avenue and Perrin Avenue	-	-	3,330	55.4	55.4	170	42.4	3,500	55.6	13.2	5,538	57.6	8,868	59.6	2.0
Baron Avenue between Perrin Avenue and Clovis Avenue	-	-	5,050	57.2	57.2	1,990	53.1	7,040	58.6	5.5	7,867	59.1	12,917	61.3	2.2
Clovis Avenue between Baron Avenue and Shepherd Avenue	1,410	56.9	6,460	63.5	6.6	7,650	64.2	12,700	66.4	2.2	9,552	65.2	14,602	67.0	1.8
Clovis Avenue between Shepherd Avenue and Teague Avenue	4,570	62.0	7,460	64.1	2.1	10,640	65.7	13,530	66.7	1.0	15,874	67.4	18,764	68.1	0.7
Clovis Avenue between Teague Avenue and Nees Avenue	8,220	64.5	10,890	65.8	1.3	14,010	66.8	16,680	67.6	0.8	17,672	67.9	20,342	68.5	0.6
Clovis Avenue between Nees Avenue and Alluvial Avenue	10,870	65.7	13,040	66.5	0.8	19,840	68.4	22,010	68.8	0.4	20,766	68.6	22,936	69.0	0.4
Clovis Avenue between Alluvial Avenue and Herndon Avenue	17,260	67.8	19,320	68.2	0.4	25,180	69.4	27,240	69.7	0.3	26,374	69.6	28,434	69.9	0.3

Source: Compiled by LSA (February 2023).
Note: Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.
Shaded cells indicate roadways adjacent to the project site.
ADT = average daily traffic
CNEL= Community Noise Equivalent Level
dBA = A-weighted decibels

This page intentionally left blank

Off-Site Traffic Noise Impacts. As shown in Table 4.4.K, the largest off-site noise level increase in traffic-related noise as a result of the proposed project would be on Clovis Avenue between Shepherd Avenue and Teague Avenue, with up to a 2.1 dBA increase on under Existing With Project conditions, up to a 1.0 dBA increase under Near-Term (2026) With Project conditions, and up to a 0.7 dBA increase under Cumulative (2046) With Project conditions. This noise level increase would be below the significance criteria for noise-level increases of 3 dBA. As such, with implementation of the proposed project, the off-site traffic noise level increases would be well below the significance threshold for noise-level increases of 3 dBA or more and would not result in a perceptible increase in noise at nearby residential uses. Therefore, off-site traffic-related noise impacts would be less than significant.

On-Site Traffic Noise Impacts. As shown in Table 4.4.K, the largest increase in project-related traffic noise would be along Baron Avenue between Behymer Avenue and Perrin Avenue, with up to a 55.4 dBA increase under Existing With Project conditions, up to a 13.2 dBA increase under Near-Term (2026) with Project conditions, and up to a 2.0 dBA increase under Cumulative (2046) With Project conditions, and between Perrin Avenue and Clovis Avenue, with up to a 13.2 dBA increase under Existing With Project conditions, up to a 5.5 dBA increase under Near-Term (2026) With Project conditions, and up to a 2.2 dBA increase under Cumulative (2046) With Project conditions. In addition, noise level increases along Clovis Avenue between Baron Avenue and Shepherd Avenue would have a noise level increase of up to 6.6 dBA under Existing with Project conditions, up to 2.2 dBA under Near-Term (2026) With Project conditions, and up to 1.8 dBA under Cumulative (2046) With Project conditions.

Although these noise-level increases would be above the perceptible noise level increase of 3 dBA or greater under existing and near-term plus project scenarios, under cumulative plus project conditions, they would not exceed the 3 dBA increase considered to be perceptible by the human ear in an outdoor environment. However, the resultant ambient noise levels would be 59.6 dBA CNEL along Baron Avenue between Behymer Avenue and Perrin Avenue, 61.3 dBA CNEL along Baron Avenue between Perrin Avenue and Clovis Avenue under Cumulative Plus Project conditions, and 67.0 dBA CNEL along Clovis Avenue between Baron Avenue and Shepherd Avenue under Cumulative Plus Project conditions. These ambient noise levels would be considered Normally Compatible for single-family residential uses under the City's Land Use and Noise Compatibility Matrix, as shown in Table 4.4.G above. Normally compatible development requires detailed assessment of noise reduction requirements and implementation noise insulation features in project design to fulfill the City's normally acceptable interior noise level criterion.

Based on USEPA Protective Noise Levels,[5] with a combination of walls, doors, and windows, standard construction for Northern California buildings (STC-26) would provide more than 25 dBA in exterior-to-interior noise reduction with windows closed and 15 dBA or more with windows open. With windows open, the buildings would not meet the City's normally acceptable interior noise standard of 45 dBA CNEL (i.e., 67.0 dBA – 15 dBA = 52 dBA).

[5] USEPA. 1978. *Protective Noise Levels, Condensed Version of EPA Levels Document*. November.

Therefore, an alternate form of ventilation, such as an air-conditioning system, would be required to ensure that windows can remain closed for a prolonged period of time. A ventilation system would reduce noise levels for residents with windows closed and would meet the City's normally acceptable interior noise level criterion of 45 dBA CNEL (i.e., 67.0 dBA – 25 dBA = 42 dBA). Therefore, the City should verify that buildings include fresh air ventilation.

Implementation of the HVAC system would allow windows to remain closed in order to reduce interior noise levels by 25 dBA, resulting in interior noise levels of 42 dBA CNEL, which would meet the City's interior noise standard of 45 dBA CNEL. Mitigation Measure NOI-1.2 below would include modifications to ensure that buildings would comply with the City's noise and land use compatibility standards and reduce interior noise impacts.

Implementation of Mitigation Measure NOI-1.2 would ensure that interior noise levels would be reduced to 45 dBA or less and would be acceptable under the City's land use compatibility standards. Therefore, this impact would be less than significant with mitigation.

Stationary Operational Noise Impacts. Development of the proposed project may include the installation or creation of new stationary sources of noise, or could include the development of new sensitive land uses in the vicinity of existing noise sources. For residential uses, stationary noise sources may include HVAC equipment noise or pool pumps. These stationary sources of noise would have the potential to disturb adjacent sensitive receptors. However, noise generation would continue to be limited by the City of Clovis' Noise Ordinance (Clovis Municipal Code, Title 9 Development Code, Chapter 9.22 Performance Standards, Section 9.22.080 Noise).

Precise details of HVAC systems and pump equipment, including future location and sizing, are unknown at this time; therefore, this analysis assumes that mechanical-related noise, including HVAC and pump equipment would generate noise levels of approximately 75 dBA L_{max} at 3 feet.[6] As discussed above, the closest sensitive receptors include single-family residential uses located approximately 55 feet east of the project site along Behymer Avenue, approximately 230 feet west of the project site, and approximately 530 feet southeast of the project site along Baron Avenue. However, as shown in Figures 3-4 through 3-6, the proposed single-family residential uses would be located across the proposed Baron Avenue, approximately 145 feet from the closest existing residence to the east along Behymer Avenue. At 145 feet, there would be a decrease of approximately 34 dBA over the reference noise level at 3 feet due to attenuation with distance. As such, HVAC-related noise would be approximately 41 dBA L_{max} at 50 feet. Based on this maximum noise level, when averaged over a 15-minute period, this noise level would not exceed the City's maximum noise level standards of 50 dBA L_{eq} during nighttime hours and 55 dBA L_{eq} during daytime hours, as measured at the nearest receiving sensitive land use. Therefore, stationary operational noise associated with the proposed project would be less than significant.

6 Trane. 2002. *Sound Data and Application Guide for the New and Quieter Air-Cooled Series R Chiller*.

Impact NOI-1: The project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measure NOI-1.1 The project contractor shall implement the following measures during construction of the proposed project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities.
- Ensure that all general construction related activities are restricted to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday, consistent with the City's Noise Ordinance.
- Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

Mitigation Measure NOI-1.2 The project contractor shall implement the following measures during construction of the proposed project:

- In order for windows and doors to remain closed, mechanical ventilation such as air conditioning shall be provided for all units.
- All windows and glass doors shall be rated STC 26 or higher such that the noise reduction provided will satisfy the interior noise standard of 45 dBA CNEL.

Level of Significance With Mitigation**:** Less Than Significant Impact. Implementation of Mitigation Measure NOI-1.1 and Mitigation Measure NOI-1.2 would reduce project-related impacts to a less than significant level.

b. **Would the project generate excessive groundborne vibration or groundborne noise levels?**

Vibration refers to ground-borne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Vibration energy propagates from a source, through intervening soil and rock layers, to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as the motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., pavement breaking and operating heavy-duty earthmoving equipment), and occasional traffic on rough roads. In general, ground-borne vibration from standard construction practices is only a potential issue when it occurs within 25 feet of sensitive uses. Groundborne vibration levels from construction activities very rarely reach levels that can damage structures; however, these levels are perceptible near the active construction site. With the exception of old buildings built prior to the 1950s or buildings of historic significance, potential structural damage from heavy construction activities rarely occurs. When roadways are smooth, vibration from traffic (even heavy trucks) is rarely perceptible. The streets surrounding the project site are paved and unlikely to cause significant ground-borne vibration.

Short-Term Vibration Impacts. Construction of the proposed project could result in the generation of ground-borne vibration. This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and will assess the potential for building damages using vibration levels in peak particle velocity (PPV inches per second [(in/sec]) because vibration levels calculated in RMS are best for characterizing human response to building vibration, while vibration level in PPV is best used to characterize potential for damage. The FTA Transit Noise and Vibration Impact Assessment Manual guidelines indicate that a vibration level up to 102 VdB (an equivalent to 0.5 in/sec in PPV) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 in/sec in PPV).[7]

[7] Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual.* pg. 186. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed March 21, 2022).

Table 4.4.L shows the PPV and VdB values at 25 feet from a construction vibration source. As shown in Table 4.4.L, bulldozers and other heavy-tracked construction equipment (except for pile drivers and vibratory rollers) generate approximately 87 VdB of ground-borne vibration when measured at 25 feet, based on the Transit Noise and Vibration Impact Assessment. At this level, ground-borne vibration would result in potential annoyance to residents and workers but would not cause any damage to the buildings.

Table 4.4.L: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 feet	
	PPV (in/sec)	L_V (VdB)[1]
Pile Driver (Impact), Typical3	0.644	104
Pile Driver (Sonic), Typical	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Sources: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS vibration velocity in decibels (VdB) is 1 µin/sec.
µin/sec = micro-inches per second
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

Construction vibration, similar to vibration from other sources, would not have any significant effects on outdoor activities (e.g., those outside of residential buildings in the project vicinity). Outdoor site preparation for the proposed project is expected to include the use of bulldozers and loaded trucks. The greatest levels of vibration are anticipated to occur during the site preparation phase. All other phases are expected to result in lower vibration levels. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project boundary (assuming the construction equipment would be used at or near the project boundary) because vibration impacts occur normally within the buildings. The formula for vibration transmission is provided below.

$$L_V dB\ (D) = L_V dB\ (25\ feet) - 30\ Log\ (D/25)$$
$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Table 4.4.M lists the projected vibration level from various construction equipment expected to be used on the project site to the nearest buildings in the project vicinity. For typical construction activity, the equipment with the highest vibration generation potential is the large bulldozer, which would generate 87 VdB at 25 feet. The closest sensitive receptors include single-family residential uses located approximately 55 feet east of the project site along Behymer Avenue, approximately 230 feet west of the project site, and approximately 530 southeast of the project site along Baron Avenue.

Table 4.4.M: Summary of Construction Equipment and Activity Vibration

Land Use	Direction	Equipment/Activity	Reference Vibration Level (VdB) at 25 feet	Reference Vibration Level (PPV) at 25 feet	Distance (feet)	Maximum Vibration Level (VdB)	Maximum Vibration Level (PPV)
Single-Family Residential	East	Large Bulldozers	87	0.089	55	77	0.027
		Loaded Trucks	86	0.076	55	76	0.023
Single-Family Residential	West	Large Bulldozers	87	0.089	230	58	0.003
		Loaded Trucks	86	0.076	230	57	0.003
Single-Family Residential	South	Large Bulldozers	87	0.089	530	47	0.001
		Loaded Trucks	86	0.076	530	46	0.001

Source: Compiled by LSA (February 2023).
Note: The FTA-recommended building damage threshold is 0.2 PPV (in/sec) or approximately 94 VdB at the receiving property structure or building.
FTA = Federal Transit Administration
in/sec = inch(es) per second
PPV = peak particle velocity
VdB = vibration velocity decibel(s)

As shown in Table 4.4.M, the closest single-family residence located east of the project site would experience vibration levels of up to 77 VdB (0.027 PPV [in/sec]). This vibration level at the nearest building from construction equipment would not exceed the FTA threshold of 94 VdB (0.2 in/sec PPV) for building damage. Although construction vibration levels at the nearest offsite buildings would have the potential to result in annoyance, these vibration levels would no longer occur once construction of the project is completed. Therefore, ground-borne vibration impacts from construction activities associated with the proposed project would not be considered significant.

Impact NOI-2: The project would not generate excessive ground-borne vibration or ground-borne noise levels.

Level of Significance Without Mitigation: Less Than Significant Impact. No mitigation is required.

c. **For a project located within the vicinity of a private airstrip an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

The nearest airports include the Fresno Yosemite International Airport, located approximately 6.1 miles southwest of the project site, the Sierra Sky Airport, located approximately 9.3 miles southwest of the project site, and the Fresno Chandler Executive Airport, located approximately 11.3 miles southwest of the project site. Each of these airports is included in the Fresno County ALUCP, which guides approximate compatible land uses.

The ALUCP includes CNEL noise contours based on projected airport and aircraft operations. The purpose of these noise contours is to minimize the effect of airport and aircraft noise on the adjacent community by determining land use compatibility and locations for noise mitigation measures during the planning, design, and development process. The Fresno County ALUCP establishes land uses that are either acceptable or unacceptable within each CNEL noise contour

based on the noise sensitivity of the particular use. Noise-sensitive land uses such as residential uses are typically only acceptable in areas outside the 65 dB CNEL and greater noise contours. It is within these areas that the Fresno County ALUC has determined that residential uses can occur while still minimizing the effects of adjacent and overhead aircraft noise on noise-sensitive receptors. Any land use decision made within the jurisdictional boundary of the ALUCP, and based upon policies set forth by the approved General Plan, must be consistent with the ALUCP, including the land use compatibility policies based on CNEL noise contours, as required by law.

Based on Figure 5.12-6 of the Noise section of the City's General Plan EIR, which shows the noise contours for these airports, the project site lies completely outside of the noise contours for these airports. As such, the proposed project would not include new residential uses or similar noise-sensitive land uses within an ALUCP noise contour area. Furthermore, there are no private airstrips operating within the project site. As a result, any noise associated with private airstrips would not result in substantial noise levels within the project site. Therefore, implementation the proposed project would not result in impacts from adjacent and overhead aircraft noise on noise-sensitive land uses. therefore, project implementation would not expose people residing or working in the project area to excessive noise levels, and impacts would be less than significant.

Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels.

Level of Significance Without Mitigation: Less Than Significant Impact. No mitigation is required.

4.4.3.3 Cumulative Impacts

For the topic of noise, the scope for assessing cumulative impacts encompasses past, current, or probable future projects under review by the City and within proximity to the project site, as well as applicable planning level documents that affect the transportation network (i.e., land use assumptions from the General Plan that would increase trips on area roadways, thereby increasing traffic noise). Based on the traffic forecasts shown in Table 4.4.K above, under Cumulative Plus Project conditions, cumulative project trips would represent a small increase in noise levels, up to approximately 2.2 dBA CNEL, which would not exceed the 3 dBA increase considered to be perceptible by the human ear in an outdoor environment. Given the small increase in noise levels generated by the proposed project and future cumulative projects that would be implemented in the project vicinity on the transportation network and the anticipated increase in traffic noise anticipated in the vicinity, the proposed project would not result in a cumulatively considerable increase in transportation-related noise.

However, as discussed above, on-site operational traffic noise would be considered Normally Compatible for single-family residential uses under the City's Land Use and Noise Compatibility Matrix under Cumulative Plus Project conditions, and as such, the project would require implementation of noise reduction requirements and noise insulation features in project design to fulfill the City's normally acceptable interior noise level criterion. With implementation of Mitigation Measure NOI-1.2, interior noise levels would be reduced to 45 dBA or less and would be acceptable

under the City's land use compatibility standards. Therefore, this impact would be less than significant with mitigation.

A significant cumulative impact could also occur if implementation of the proposed project would combine with other cumulative development projects to result in any permanent increase of 3 dBA or more in ambient noise levels at the existing sensitive receptors in the project site vicinity that are currently exposed to noise levels above the City's normally acceptable threshold for that type of land use. As discussed above, long-term operation of the proposed project would not create a significant increase in stationary source noise. As such, permanent increases in noise generated by the proposed project would not be considered a cumulatively considerable contribution to the total noise environment in the project site vicinity, and this impact would be less than significant.

Finally, as discussed above, while construction noise impacts are exempt from specific noise levels limits under the City's Municipal Code, project construction noise would result in a potentially significant impact at the nearest off-site sensitive residential use. With implementation of Mitigation Measure NOI-1.1, which would require that construction equipment is properly equipped with mufflers consistent with manufacturers' standards, staged at the greatest distance possible from sensitive receptors, and would require the project to designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise, the proposed project would not result in adverse noise impacts from construction activities. Although the proposed project may be under construction at the same time as one or more cumulative development projects, each project would be required to implement similar measures as those identified in Mitigation Measure NOI-1.1 to ensure that construction noise levels are reduced to the extent feasible and to ensure that construction activities comply with the City's Noise Ordinance. In addition, construction-related noise impacts would be temporary and would no longer occur once construction of each project is completed. Therefore, construction activities would not be considered a cumulatively considerable contribution to the total noise environment in the project site vicinity, and this impact would be less than significant.

Impact NOI-4: The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to noise.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measures: Refer to Mitigation Measures NOI-1.1 and NOI-1.2.

Level of Significance With Mitigation: Less than Significant with Mitigation Measures NOI-1.1 and NOI-1.2.

4.5 TRANSPORTATION

This section describes the existing transportation network of the proposed site and evaluates the potential impacts associated with the proposed project, both at the individual and cumulative levels. The analysis in this section is based in part on the City's General Plan, and on the Transportation Impact Analysis (TIA)[1] prepared by LSA included in Appendix G of this Environmental Impact Report (EIR).

4.5.1 Environmental Setting

4.5.1.1 Roadway Network

Within the City of Clovis, major roadways are classified based on the roadway classification provided in the Circulation Element of the City of Clovis General Plan. The following is a brief description of major roadways within the project study area:

- **Willow Avenue:** Willow Avenue is designated as an arterial in the City's General Plan. Between International Avenue and Shepherd Avenue, Willow Avenue is a six-lane, divided arterial with a raised median. There are Class II bicycle lanes along both directions of this segment. However, there is no provision for on-street parking.

- **Minnewawa Avenue:** Within the study area, Minnewawa Avenue is designated as a collector between International Avenue and Behymer Avenue, and as an arterial between Behymer Avenue and Shepherd Avenue in the City's General Plan. Between International Avenue and Shepherd Avenue, Minnewawa Avenue is a two-lane, undivided road. There are Class II bicycle lanes along both directions of this segment. However, there is no provision for on-street parking.

- **Clovis Avenue:** Clovis Avenue is designated as an arterial in the City's General Plan. Between Baron Avenue and Herndon Avenue, Clovis Avenue is mostly a four-lane, divided arterial with a raised median or a two-way-left-turn lane (TWLTL) median. There are Class II bicycle lanes along some portions of this segment. However, there is no provision for on-street parking.

- **Sunnyside Avenue:** Sunnyside Avenue is designated as a collector in the City's General Plan. Within the study area, Sunnyside Avenue is a two-lane, undivided road. There are no bicycle facilities in either direction in this segment. There is also no provision for on-street parking.

- **Fowler Avenue:** Fowler Avenue is designated as a rural collector between Behymer Avenue and Shepherd Avenue, and as an arterial between Shepherd Avenue and the State Route 168 (SR-168) Westbound Ramps in the City's General Plan. Between Behymer Avenue and Nees Avenue, Fowler Avenue is a two-lane partly divided and partly undivided road. There is a Class II bicycle lane in the southbound direction only along a small portion of this segment near the intersection with Shepherd Avenue. There is no provision for on-street parking. Between Nees Avenue and Goshen Avenue, Fowler Avenue is a three-lane divided road with a raised median. There is a Class II bicycle lane only along the northbound direction of this segment. There is no provision for on-street

[1] LSA. 2023a. Transportation Impact Analysis Tract Map 6343 Project, Clovis, Fresno County, California. August.

parking. Between Goshen Avenue and the SR-168 Westbound Ramps, Fowler Avenue is a four-lane divided road with a raised median. There are Class II bicycle lanes along both directions of this segment. There is no provision for on-street parking.

- **International Avenue:** International Avenue is designated as a collector between Willow Avenue and Minnewawa Avenue in the City's General Plan. Within the study area, International Avenue is a two-lane, undivided road. There are no bicycle facilities in either direction in this segment. There is also no provision for on-street parking.

- **Behymer Avenue:** Within the study area, Behymer Avenue is designated as an arterial between Willow Avenue and Clovis Avenue, as a collector between Clovis Avenue and Sunnyside Avenue, and as a rural collector between Sunnyside Avenue and Fowler Avenue in the City's General Plan. Between Willow Avenue and Fowler Avenue, Behymer Avenue is a two-lane, undivided road. There are no bicycle facilities in either direction in this segment. There is also no provision for on-street parking.

- **Shepherd Avenue:** Within the study area, Shepherd Avenue is designated as an arterial between Willow Avenue and Clovis Avenue, and as an Expressway between Clovis Avenue and Fowler Avenue in the City's General Plan. Between Willow Avenue and Sunnyside Avenue, Shepherd Avenue is a three-lane, divided road with a raised median, while between Sunnyside Avenue and Fowler Avenue, it is a two-lane, partly undivided and partly divided road. There are Class II bicycle lanes along both directions of the segment between Willow Avenue and Sunnyside Avenue. There are no bicycle facilities in any direction of the segment between Sunnyside Avenue and Fowler Avenue. There is no provision for on-street parking along any of these segments.

- **Teague Avenue:** Teague Avenue is designated as a collector in the City's General Plan. Between Sunnyside Avenue and Fowler Avenue, Teague Avenue is a two-lane, undivided arterial. There are no bicycle facilities in this segment. There is also no provision for on-street parking.

- **Nees Avenue:** Within the study area, Nees Avenue is designated as an arterial in the City's General Plan. Between Clovis Avenue and Sunnyside Avenue, Nees Avenue is a mostly two-lane undivided road. There is a Class II bicycle lane in the eastbound direction only along a small portion of this segment near the intersection with Sunnyside Avenue. However, there is no provision for on-street parking. Between Sunnyside Avenue and Fowler Avenue, Nees Avenue is a three-lane divided arterial with a raised median or a TWLTL median. There are Class II bicycle lanes along some portions of this segment; however, there is no provision for on-street parking.

- **Alluvial Avenue:** Within the study area, Alluvial Avenue is designated as a collector in the City's General Plan. Between Clovis Avenue and Sunnyside Avenue, Alluvial Avenue is a two-lane, divided collector with a TWLTL median. However, between Sunnyside Avenue and Fowler Avenue, Alluvial Avenue is a partly three-lane and partly four-lane undivided collector. There are Class II bicycle lanes along both directions of these segments; however, there is no provision for on-street parking.

- **Herndon Avenue:** Within the study area, Herndon Avenue is designated as an arterial in the City's General Plan. Between the SR-168 Eastbound Ramps and Clovis Avenue, Herndon Avenue is a 10-

lane, divided arterial with a raised median. There are no bicycle facilities along either direction in this segment. There is also no provision for on-street parking.

4.5.1.2 Bicycle Facilities

Caltrans provides the following descriptions for types of bikeway facilities:

- **Class I Bikeway (Bike Path):** Class I bikeways, also known as bike paths or shared-use paths, are facilities with exclusive right of way for bicyclists and pedestrians, away from the roadway and with cross flows by motor traffic minimized. Some systems provide separate pedestrian facilities. Class I facilities support both recreational and commuting opportunities. Common applications include along rivers, shorelines, canals, utility rights-of-way, railroad rights-of-way, within school campuses, or within and between parks.

- **Class II Bikeway (Bike Lane):** Class II bikeways are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of a roadway for bicycle travel. Bike lanes are one-way facilities, typically striped adjacent to motor traffic travelling in the same direction. Contraflow bike lanes can be provided on one-way streets for bicyclists travelling in the opposite direction.

- **Class III Bikeway (Bike Route):** Class III bikeways, or bike routes, designate a preferred route for bicyclists on streets shared with motor traffic not served by dedicated bikeways to provide continuity to the bikeway network. Bike routes are generally not appropriate for roadways with higher motor traffic speeds or volumes. Bike routes are established by placing bike route signs and optional shared roadway markings (sharrow) along roadways.

- **Class IV Bikeway (Separated Bikeways):** A Class IV separated bikeway, often referred to as a cycle track or protected bike lane, is for the exclusive use of bicycles, physically separated from motor traffic with a vertical feature. The separation may include, but is not limited to, grade separation, flexible posts, inflexible barriers, or on-street parking. Separated bikeways can provide for one-way or two-way travel. By providing physical separation from motor traffic, Class IV bikeways can reduce the level of stress, improve comfort for more types of bicyclists, and contribute to an increase in bicycle volumes and mode share.

According to the City of Clovis Active Transportation Plan (ATP), the bikeway network within the City is classified into four categories:

- Class I (Trails)
- Class II (Bicycle Lanes)
- Class II (Buffered Bicycle Lanes)
- Class III (Bicycle Routes)

One of the long-term visions of the City includes upgrading existing or recommended Class II Bicycle Lanes and Buffered Bicycle Lanes to Class IV Separated Bicycle Lanes. At present, Class II bicycle lanes exist along Clovis Avenue, Willow Avenue, and some segments of Shepherd Avenue and Fowler

Avenue within the study area. However, different bicycle facilities are proposed along other roadways within the study area, such as Sunnyside Avenue, Teague Avenue, Nees Avenue, and Alluvial Avenue.

4.5.1.3 Pedestrian Facilities

The City has an extensive pedestrian network, with sidewalks along most major roadways. However, since a portion of the study area falls within recently incorporated areas of the City, sidewalks are not present because they were previously developed as per unincorporated Fresno County design guidelines.

The City's ATP has identified improvements to the pedestrian network based on a citywide sidewalk network gap analysis. Additionally, several potential locations have been identified to install midblock crossings to improve trail connectivity throughout Clovis. Two trails (i.e., the Dry Creek Trail and the Enterprise Trail) currently exist within the study area. However, additional trails are being proposed in the study area with potential mid-block crossings.

4.5.1.4 Transit Facilities

Clovis Transit Stageline is the Transportation Service Agency within the City of Clovis and is responsible for coordinating transit services within its service area. Fresno Area Express (FAX), the Transportation Service Agency for the City of Fresno, provides four routes for Clovis Transit Stageline.

Clovis Transit Stageline Routes 10 and 80 operate within the study area for the proposed project. Route 10 operates from Monday through Saturday, while Route 80 operates only on school days, based on the Clovis Unified School District schedule. Route 10 provides access to Fresno State University, and Route 80 provides access to Buchanan Education Complex. Fresno Area Express (FAX) Route 3 operates within the study area along Willow Avenue seven days a week. The route connects communities in Fresno to the different campuses of Clovis Community College.

In addition to fixed route services, Round Up is the Clovis paratransit service for disabled City residents. Round Up transit vehicles are all accessible in accordance with the Americans with Disabilities Act (ADA) standards.

4.5.2 Regulatory Setting

4.5.2.1 Federal Regulations

Federal Highway Administration. The Federal Highway Administration (FHWA) is a major agency of the United States Department of Transportation. In partnership with State and local agencies, the FHWA carries out federal highway programs to meet the nation's transportation needs. The FHWA administers and oversees federal highway programs to ensure that federal funds are used efficiently.

Americans with Disabilities Act of 1990. Titles I, II, III, IV, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in "places of public accommodation" (businesses and nonprofit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Standards for Accessible Design, which establish minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Federal Transit Administration. The Federal Transit Administration (FTA) is an authority that provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries. The FTA is funded by Title 49 of the United States Code, which states the FTA's interest in fostering the development and revitalization of public transportation systems. The FTA invests approximately $12 billion annually to support and expand public transit.

4.5.2.2 State Regulations

Assembly Bill 32 (Global Warming Act of 2006) and Senate Bill 375. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, requires California to reduce its greenhouse gas (GHG) emissions to levels presented in the year 1990 by 2020. In response, the California Air Resources Board (CARB) is responsible for creating guidelines for this Act. In 2008, CARB adopted its proposed Scoping Plan, which included the approval of Senate Bill (SB) 375 as a means of achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks helps the State comply with AB 32.

Established through CARB, SB 375 lists four major components and requirements: (1) it requires regional GHG emissions targets; (2) it requires creating a Sustainable Communities Strategy (SCS) that provides a plan for meeting the regional targets; (3) it requires that regional housing elements and transportation plans be synchronized on 8-year schedules; and (4) it requires transportation and air pollutant emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC).

Assembly Bill 1358 (Complete Streets). The California Complete Streets Act requires general plans updated after January 30, 2011, to include Complete Streets policies so that roadways are designed to safely accommodate all users, including bicyclists, pedestrians, transit riders, children, the elderly, and persons with disabilities, as well as motorists. The goal of this act is to encourage cities to rethink policies that emphasize automobile circulation and prioritize motor vehicle improvements and produce creative solutions that emphasize all modes of transportation. Complete Streets roadways allow for more transportation options, more non-single-occupancy vehicles, and less traffic congestion. Additionally, increased transit ridership, walking, and biking can reduce air pollution while improving the overall travel experience for road users. While there is no standard for a Complete Streets design, it generally includes one or more of the following features: bicycle lanes, wide shoulders, well-designed and well-placed crosswalks, crossing islands in appropriate mid-block locations, bus pullouts or special bus lanes, audible and accessible pedestrian signals, sidewalk bulb-outs, center medians, street trees, planter strips, and groundcover.

Senate Bill (SB) 743. On September 27, 2013, Governor Jerry Brown signed SB 743 into law and codified a process that changed transportation impact analysis as part of CEQA compliance. SB 743 directs the California Office of Planning and Research (OPR) to administer new CEQA guidance for jurisdictions that removes automobile vehicle delay and LOS or other similar measures of vehicular capacity or traffic congestions from CEQA transportation analysis. Rather, it requires the analysis of vehicle miles traveled (VMT) or other measures that "promote the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses," to be used as a basis for determining significant impacts to circulation in California. The goal of SB 743 is to appropriately balance the needs of congestion management with statewide goals related to

reducing GHG emissions, encourage infill development, and promote public health through active transportation.

Guide for the Preparation of Traffic Impact Studies. Caltrans' "Guide for the Preparation of Traffic Impact Studies"[2] provides general guidance regarding the preparation of traffic impact studies for projects that may have an impact on the State Highway System. The guidance includes when a traffic study should be prepared and the methodology to use when evaluating operating conditions on the State highway system. The "Guide for the Preparation of Traffic Impact Studies" states, "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on state highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS." In accordance with this recommendation, consultation with Caltrans staff indicated that Caltrans would be willing to consider LOS D at the LOS D/E threshold when improvements become infeasible for State facilities. The Guide for the Preparation of Traffic Impact Studies also states that where "an existing State highway facility is operating at less than the appropriate target LOS, the existing [measure of effectiveness (MOE)] should be maintained."

4.5.2.3 Regional Regulations

Fresno County Council of Governments. The Fresno Council of Governments (COG) is a voluntary association of local governments and a regional planning agency comprised of 16 member jurisdictions, including the City of Fresno. The members are represented by a Policy Board consisting of mayors of each incorporated city, and the Chairman of the County Board of Supervisors, or their designated elected official. The Policy Advisory Committee (PAC), composed of the Chief Administrative Officer of each member agency, assists the Board in its decision-making process. Others involved in the decision process include expert staff from member agencies, citizen and interest groups, and other stakeholders. The Fresno COG's purpose is to establish a consensus on the needs of the Fresno County area and further action plans for issues related to the Fresno County region. The current regional transportation plan, known as the Fresno County Regional Transportation Plan (RTP) (2042), was adopted in 2018. The RTP addresses GHG emissions reductions and other air emissions related to transportation, with the goal of preparing for future growth in a sustainable way. The plan specifies how funding will be sourced and financed for the region's planned transportation investments, ongoing operations, and maintenance. The goals, objectives, and policies of the RTP are established to direct the courses of action that will provide efficient, integrated multi-modal transportation systems to serve the mobility needs of people, including accessible pedestrian and bicycle facilities, and freight, while fostering economic prosperity and development, and minimizing mobile sources of air pollution. They are organized into six broad transportation mode based categories: general transportation; highways, streets, and roads; mass transportation; aviation; active transportation; and rail.

Fresno County Regional Transportation Mitigation Fee. Local Regulations

City of Clovis General Plan. The General Plan's Circulation Element addresses the movement of people and goods throughout the City of Clovis transportation network. The Circulation Element

[2] California Department of Transportation (Caltrans). 2002. Guide for the Preparation of Traffic Impact Studies. December.

evaluates transportation circulation needs within the City and recommends circulation improvements that will accommodate the future demand for transportation service generated by the Land Use Element of the General Plan. Table 4.5.A lists the General Plan policies and actions related to transportation applicable to the proposed project.

In addition to the policies listed above the City of Clovis prepared a Supplemental Draft EIR to evaluate updates to the Circulation Element of the 2014 Clovis General Plan. The update to the Circulation Element included the addition of Policies 2.6 through 2.8 and Policies 8.1 through 8.6, as listed above. The Supplemental EIR also included the following Mitigation Measures that are applicable to residential development.

Mitigation Measure TRANS-3 Provide Bicycle Facilities: The City shall require land uses that generate more than 500 daily trips (which is the threshold that screens small projects from a detailed VMT analysis) to provide bike parking, bike lockers, showers, and personal lockers. This measure is designed to promote commuting by bicycle and support transit first/last mile access. Bicycle facilities shall be required to be constructed in conjunction with each project and funded by the applicant.

Mitigation Measure TRANS-4 Improve Street Connectivity: The City shall require new area plans and new housing projects to provide a well-connected street network, particularly for non-motorized connections. Increased intersection density, alleyways, and mid-block pedestrian crossings may be a proxy for street connectivity and accessibility to connect a variety of land uses. Characteristics of street network connectivity include short block lengths, numerous three and four-way intersections, and minimal dead-ends (cul-de-sacs). Street connectivity helps to facilitate shorter vehicle trips and greater numbers of walk and bike trips and thus a reduction in VMT.

Table 4.5.A: City of Clovis General Plan Policies Related to Transportation

Policy/Action Item Number	Policy/Action Item
Land Use Element	
Policy 1.2	**Open to changes.** Be open to potential changes in land use, circulation, and development standards to reposition areas identified on Figure LU-5 if necessary for revitalization and redevelopment.
Circulation Element	
Policy 1.1	**Multimodal network.** The city shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
Policy 1.2	**Transportation decisions.** Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists.
Policy 1.3	**Age and mobility.** The design of roadways shall consider all potential users, including children, seniors, and persons with disabilities.
Policy 1.4	**Jobs and housing.** Encourage infill development that would provide jobs and services closer to housing, and vice versa, to reduce citywide vehicle miles travelled and effectively utilize the existing transportation infrastructure, as well as promote carpooling whenever possible.
Policy 1.6	**Internal circulation.** New development shall utilize a grid or modified-grid street pattern. Areas designated for residential and mixed-use village developments should feature short block lengths of 200 to 600 feet.
Policy 1.7	**Narrow streets.** The City may permit curb-to-curb dimensions that are narrower than current standards on local streets to promote pedestrian and bicycle connectivity and enhance safety.
Policy 1.8	**Network completion.** New development shall complete the extension of stub streets planned to connect to adjacent streets, where appropriate.
Policy 2.1	**Level of service.** The following is the City's level of service (LOS) standards: A. Achieve LOS D vehicle traffic operations during the a.m. and p.m. peak hours B. Allow exceptions on a case-by-case basis where lower levels of service would result in other public benefits, such as: i. Preserving agriculture or open space land ii. Preserving the rural/historic character of a neighborhood iii. Preserving or creating a pedestrian-friendly environment in Old Town or mixed-use village districts iv. Avoiding adverse impacts to pedestrians, cyclists, and mass transit riders v. Where right-of-way constraints would make capacity expansion infeasible
Policy 2.2	**Multimodal LOS.** Monitor the evolution of multimodal level of service (MMLOS) standards. The city may adopt MMLOS standards when appropriate.
Policy 2.3	**Fair share costs.** New development shall pay its fair share of the cost for circulation improvements in accordance with the city's traffic fee mitigation program.
Policy 2.4	**Right-of-way dedication.** The city may require right-of-way dedication essential to the circulation system in conjunction with any development or annexation. The City shall request the County of Fresno to apply the same requirements in the Clovis planning area
Policy 2.6	**Vehicle Miles Traveled.** Development projects shall comply with the City's VMT Transportation Analysis Guidelines and provide the appropriate VMT mitigation measures as determined through the analysis.
Policy 2.7	**VMT Mitigation Fee Program.** Evaluate the feasibility of a VMT mitigation fee program and explore opportunities for establishing an in-lieu mitigation fee to offset VMT impacts from development.
Policy 2.8	**Partner with local agencies and stakeholders.** Partner with other local and regional agencies and stakeholders to explore VMT mitigation measures at the regional scale.
Policy 3.1	**Traffic calming.** Employ traffic-calming measures in new developments and existing neighborhoods to control traffic speeds and maintain safety.
Policy 3.2	**Neighborhood compatibility.** Periodically review and update design standards to ensure that new and redesigned streets are compatible with the context of adjacent neighborhoods.

Table 4.5.A: City of Clovis General Plan Policies Related to Transportation

Policy/Action Item Number	Policy/Action Item
Policy 3.7	**Conflict points.** Minimize the number of and enhance safety at vehicular, pedestrian, and bicycle conflict points.
Policy 4.1	**Bike and transit backbone.** The bicycle and transit system should connect Shaw Avenue, Old Town, the Medical Center/R&T Park, and the three Urban Centers.
Policy 4.2	**Priority for new bicycle facilities.** Prioritize investments in the backbone system over other bicycle improvements.
Policy 4.4	**Bicycles and transit.** Coordinate with transit agencies to integrate bicycle access and storage into transit vehicles, bus stops, and activity centers.
Policy 4.7	**Bus rapid transit.** Plan for bus rapid transit and transit-only lanes on transit priority corridors as future ridership levels increase.
Policy 5.1	**Complete street amenities.** Upgrade existing streets and design new streets to include complete street amenities, prioritizing improvements to bicycle and pedestrian connectivity or safety, consistent with the Bicycle Transportation Master Plan and other master plans.
Policy 5.2	**Development-funded facilities.** Require development to fund and construct facilities as shown in the Active Transportation Plan when facilities are in or adjacent to the development.
Policy 6.1	**Truck routes.** Plan and designate truck routes that minimize truck traffic through or near residential areas.
Policy 8.1	**Transportation Demand Management.** Develop Transportation Demand Management (TDM) measures that promote, enhance, and make available feasible alternative modes of transportation to residents, employees, and visitors.
Policy 8.2	**Transit Routes.** As development occurs in the City's growth areas, continue to evaluate transit routes to determine the most efficient methods of transporting people between residential neighborhoods and goods and services.
Policy 8.3	**Bicycle Lanes.** Seek input from and/or partner with any local bicycle advocacy groups to improve the design, location, and functionality of bicycle lanes to encourage safe and efficient travel lanes.
Policy 8.4	**Connectivity between residential and commercial.** Continue to explore opportunities for increased non-vehicular connectivity between new and existing residential development and commercial uses.
Policy 8.5	**Community outreach and education.** Explore the feasibility of a community outreach and education program that promotes and highlights opportunities for safe and efficient non-vehicular modes of transportation for commuting and recreation.
Policy 8.6	**Employer commute programs.** Work with businesses to encourage commuter programs and infrastructure that promotes alternative modes of transportation reducing the use of single-occupancy vehicles, such as additional bicycle racks/lockers, on-site shower facilities, and perks for employees who commute.

Source: City of Clovis General Plan (August 2014).

4.5.3 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to transportation and traffic that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds to determine if an impact is significant. The latter part of this section presents the impacts associated with implementation of the proposed project and the recommended mitigation measures, if required. Cumulative impacts are also addressed.

4.5.3.1 Significance Criteria

Based on CEQA Guidelines Appendix G, the proposed project would have a significant impact related to transportation if it would:

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

d. Result in inadequate emergency access;

4.5.3.2 Project Impacts

The following discussion describes the potential impacts related to transportation and traffic that could result from implementation of the proposed project.

a. **Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site.

Phase 1 of the proposed project would occur in the southern portion of the project site, and would include the development of approximately 136 single-family residential units, the construction of approximately 44 parking spaces, an approximately 8,745-square-foot community pool and recreation area, an approximately 13,930 square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue, among other improvements.

Phase 2 of the proposed project would occur in the central portion of the project site, and would include the development of approximately 214 single-family residential units, the construction of a 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue, among other improvements.

Phase 3 of the proposed project would occur in the northern portion of the project site, and would include the development of approximately 240 single-family residential units, the construction of approximately 91 parking spaces, an approximately 9,985-square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue, among other improvements.

Under full buildout, the proposed project would generate 5,564 daily trips, with 413 trips occurring during the AM peak hour and 555 trips occurring during PM peak hour.

Transit. There are no existing dedicated transit facilities within the project site. As previously described, Clovis Transit Stageline Routes 10 and 80, as well as FAX Route 3, operate within the project's study area. The proposed project would not introduce elements that would conflict with current and planned transit facilities and routes in the City. As a result, a less-than-significant impact would occur. No mitigation is required.

Bicycles. There are no existing dedicated bicycle facilities within the project site. At present, Class II bicycle lanes exist along Clovis Avenue, Willow Avenue, and some segments of Shepherd Avenue and Fowler Avenue within the study area. However, different bicycle facilities are proposed along other roadways within the study area, such as Sunnyside Avenue, Teague Avenue, Nees Avenue, and Alluvial Avenue. The proposed project would not conflict with the operation of existing bicycle facilities in the project area and would comply with planned development of bicycle facilities consistent with the City's Active Transportation Plan. The proposed project would construct a total of 1.19 miles of bike lanes along North Baron Avenue. Design of proposed bicycle facilities would comply with City design requirements and with the multi-modal transportation goals of the City's Active Transportation Plan or the General Plan. As a result, a less-than-significant impact would occur. No mitigation is required.

Pedestrian Facilities. There are no existing dedicated pedestrian facilities within the project site. The project study area currently includes approximately 10 miles of sidewalk. The proposed project would add approximately 1.8 miles of sidewalk/pedestrian access. The proposed project would construct pedestrian sidewalks with development of the proposed extension of North Baron Avenue. Additionally, the project would develop internal pedestrian facilities within the project site to aid in pedestrian circulation. Proposed pedestrian facilities would be designed per City requirements. The proposed project would accommodate pedestrian circulation and increase connectivity with the City's existing pedestrian network. Additionally, the project would not conflict with multi-modal transportation goals of the City's Active Transportation Plan or the General Plan. As a result, a less-than-significant impact would occur. No mitigation is required.

Roadways. Study intersections and roadway segments analyzed in this report are completely under the jurisdiction of the City of Clovis or lie at the borders of Clovis and Fresno. However, intersections located at freeway on-ramps and off-ramps are under the jurisdiction of the California Department of Transportation (Caltrans).

The City of Clovis considers LOS D as the LOS standard for study intersections and roadway segments, except for roadway segments that are adopted in the City's General Plan EIR to operate at LOS E or F. At study intersections under the jurisdiction of the City of Clovis, a significant impact would occur at a signalized intersection when LOS falls below the target LOS of D with the addition of project traffic or when a project increases the average delay at an intersection already operating at an unacceptable LOS; at unsignalized intersections, significant impacts would occur when LOS falls below the target LOS (from E or better to F) with the addition of project traffic and triggers the signal warrant criteria or when the project increases delay at an intersection already operating at an unacceptable LOS and triggers the signal warrant criteria. The City of Clovis TIA Guidelines do not define an operational deficiency criterion for roadway segments. However, for purposes of this analysis, at roadway segments under the jurisdiction of the City of Clovis, an operational deficiency has been considered when the project causes an unsatisfactory condition (deterioration from LOS A through D to E or F) or when the project contributes to an existing or forecast deficiency.

Based on the City of Fresno General Plan Circulation Element, the City uses Traffic Impact Zone (TIZ) boundaries within the City to identify acceptable LOS for each TIZ. All study intersection and roadways segments in the study area within the City of Fresno judication are located within the City of Fresno Traffic Impact Zone (TIZ) III. Per the City of Fresno's General Plan, all intersections and roadway segments within TIZ III should maintain a peak-hour LOS standard of D or better. Therefore, as a conservative estimate, LOS D was considered as the minimum level of service criterion for all intersections. As such, an operational deficiency occurs when the project causes an unsatisfactory condition (deterioration from LOS A through D to LOS E or F) for intersections or when the project contributes to an existing or forecasted deficiency. In which case, a proposed project would need to identify improvements to improve the intersection LOS to an acceptable level. City of Fresno's Traffic Impact Study guidelines do not define an operational deficiency criterion for roadway segments. Therefore, for purposes of this analysis, at intersections under City of Fresno jurisdiction, an operational deficiency has been considered when the project causes an unsatisfactory condition (deterioration from LOS A through D to E or F) or when the project contributes to an existing or forecast deficiency.

For intersections under the jurisdiction of Caltrans, Caltrans considers an acceptable LOS to be between LOS C and D at all intersections (delay of 45 seconds at signalized intersections and delay of 30 seconds at unsignalized intersections). Caltrans does not have any operational deficiency criteria for study intersections. Therefore, an operational deficiency occurs when the project causes an unsatisfactory condition (deterioration from LOS A through D to E or F) for intersections or when the project contributes to an existing or forecast deficiency. The project needs to identify improvements to improve the intersection LOS to an acceptable level.

The TIA developed existing, near-term, and cumulative plus project traffic volumes by adding project traffic to the traffic for the corresponding "without project" scenarios. The TIA identified the following roadway segment and study intersection LOS deficiencies under the different scenarios analyzed:

- **Existing Levels of Service:** Under existing conditions, four study intersections, summarized in Table 8-A of the TIA, operate at an unsatisfactory LOS. Additionally, as summarized in Table 8-B of the TIA, all the study roadway segments currently operate at a satisfactory LOS under existing conditions.

- **Existing Plus Project Levels of Service:** Under this scenario, four study intersections, summarized in Table 8-A of the TIA, would operate at an unsatisfactory LOS. Based on the operational deficiency criteria stated in this section, the project is forecast to create an operational deficiency at these intersections. It should be noted that all four intersections are currently operating at a deficient LOS, and as such, the project is forecast to add to the existing deficiencies at these intersections. Additionally, as summarized in Table 8-B of the TIA, all the study roadway segments are forecast to operate at a satisfactory LOS under this scenario.

- **Near-Term (2026) Plus Project Levels of Service:** Under this scenario, nine study intersections, summarized in Table 8-C of the TIA, would operate at an unsatisfactory LOS. Based on the operational deficiency criteria stated in this section, the project is forecast to create an

operational deficiency at these intersections. Additionally, as summarized in Table 8-D of the TIA, three roadway segments are forecast to operate at an unsatisfactory LOS under this scenario.

- **Cumulative (2046) Without Project Levels of Service:** Under this scenario, 13 study intersections, summarized in Table 8-E of the TIA, would operate at an unsatisfactory LOS. Additionally, as summarized in Table 8-F of the TIA, six roadway segments are forecast to operate at an unsatisfactory LOS under this scenario.

- **Cumulative (2046) Plus Project Levels of Service:** Under this scenario, 13 study intersections, summarized in Table 8-E of the TIA, would operate at an unsatisfactory LOS. Based on the operational deficiency criteria stated in this section, the project is forecast to create an operational deficiency at these intersections. It should be noted that all 13 intersections are forecast to operate at a deficient LOS, and as such, the project is forecast to add to the existing deficiencies at these intersections. Additionally, as summarized in Table 8-F of the TIA, eight roadway segments are forecast to operate at an unsatisfactory LOS under this scenario. Based on the operational deficiency criteria stated in this section, the project is forecast to create an operational deficiency at these roadway segments. It should be noted that out of the eight roadway segments forecast to operate at a deficient LOS, six segments are forecast to operate at a deficient LOS under cumulative (2046) without project conditions. As such, the project is forecast to add to the forecasted deficiencies at these six roadway segments.

Table 4.5.B below summarizes the recommended improvements for study intersections under all scenarios. Tables 9-B through 9-D of the TIA illustrate the post-improvement intersection levels of service for the different scenarios. As shown in these tables, implementation of recommended improvements would improve operations at all study intersections to operate at satisfactory LOS levels. As shown in Table 9-H of the TIA, the project would pay into the Clovis Development Impact Fee (Clovis DIF) Program for six improvements and would pay the Regional Transportation Mitigation Fee for one intersection's improvements (i.e. the Clovis Avenue/Herndon Avenue intersection). Therefore, the intersections are forecast to operate at a satisfactory LOS with the implementation of the recommended improvements and impacts to the study intersections' LOS would be less than significant.

Table 4.5.C below summarizes the recommended improvements for roadway segments for all analysis scenarios.

Table 4.5.B: Recommended Improvements for Intersections

Intersection	Jurisdiction	Existing Plus Project Improvements	Near-Term (2026) Plus Project Improvements	Cumulative (2046) Plus Project Improvements
Willow Avenue/International Avenue	Clovis/Fresno	Optimize signal timing.	Optimize signal timing.	Optimize signal timing
Willow Avenue/Shepherd Avenue	Clovis/Fresno			Add NBR and EBR overlap phasing, optimize signal timing.
Minnewawa Avenue/International Avenue	Clovis	Convert from TWSC to AWSC	Convert from TWSC to AWSC	Install a signal. Add NBL, SBL.
Minnewawa Avenue/Behymer Avenue	Clovis	Install a signal.	Install a signal. Add NBL, SBL.	Install a signal. Add NBL, SBL, EBL, WBL, WBR.
Minnewawa Avenue/Shepherd Avenue	Clovis		Add NBT, SBT, WBT. Optimize the signal timing.	Add NBT, SBT, WBT. Add EBR overlap phasing. Optimize the signal timing.
Clovis Avenue/Behymer Avenue	Clovis			Install a signal. Add NBL, SBL, EBL, EBR, WBR, WBL.
Clovis Avenue/Baron Avenue	Clovis		Restripe NB approach to NBU, NBT, and NBR (Part of Clovis Avenue Extension).	Install a signal. Restripe NB approach to NBU, NBT, and NBR (Part of Clovis Avenue Extension).
Clovis Avenue/Shepherd Avenue	Clovis		Optimize signal timing.	Optimize signal timing.
Clovis Avenue/Nees Avenue	Clovis		Optimize signal timing.	Optimize signal timing.
Clovis Avenue/Alluvial Avenue	Clovis			Optimize signal timing.
Clovis Avenue/Herndon Avenue	Clovis		Add EBR and SBR overlap phasing and restrict NB and EB U-turns. Coordinate and optimize signal along with the SR-168 ramp intersections.	Add EBR and SBR overlap phasing and restrict NB and EB U-turns. Coordinate and optimize signal along with the SR-168 ramp intersections.
Baron Avenue/Behymer Avenue	Clovis			Install a signal with E/W split phasing.
Sunnyside Avenue/Shepherd Avenue	Clovis		Install a signal. Add NBL, SBL, SBR, EBL, EBR, WBL, WBT, WBR.	Install a signal. Add NBL, SBL, SBR with overlap phasing, EBL, EBT, EBR, WBL, WBT, WBR with overlap phasing.
Fowler Avenue/Shepherd Avenue	Clovis	Optimize signal timing.	Optimize signal timing.	Optimize signal timing.

Table 4.5.B: Recommended Improvements for Intersections

Intersection	Jurisdiction	Existing Plus Project Improvements	Near-Term (2026) Plus Project Improvements	Cumulative (2046) Plus Project Improvements

Source: *Transportation Impact Analysis Tract Map 6343 Project* (LSA 2023b).
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound
L = Left, T = Through, R = Right
AWSC= All-Way Stop Control; TWSC = Two-Way Stop Control

Table 4.5.C: Recommended Improvements for Roadway Segments

Roadway Segment	Jurisdiction	Near-Term (2026) Plus Project Improvements	Cumulative (2046) Plus Project Improvements
Segments on Behymer Avenue			
between Minnewawa Avenue and Clovis Avenue	Clovis		Convert to 2-Lane TWLTL Collector
between Clovis Avenue and Baron Avenue	Clovis		Convert to 2-Lane TWLTL Collector
Segments on Shepherd Avenue			
between Willow Avenue and Minnewawa Avenue	Clovis	Convert to 4-Lane Raised Median Arterial	Convert to 4-Lane Raised Median Arterial
between Clovis Avenue and Sunnyside Avenue	Clovis	Convert to 4-Lane Raised Median Expressway	Convert to 4-Lane Raised Median Expressway
between Sunnyside Avenue and Fowler Avenue	Clovis		Convert to 4-Lane Raised Median Expressway
Segments on Minnewawa Avenue			
between International Avenue and Behymer Avenue	Clovis		Convert to 4-Lane Undivided Arterial
between Behymer Avenue and Shepherd Avenue	Clovis	Convert to 4-Lane Undivided Arterial	Convert to 4-Lane Undivided Arterial
Segments on Baron Avenue			
between Perrin Avenue and Clovis Avenue	Clovis		Convert to 2-Lane Divided Collector

Source: *Transportation Impact Analysis Tract Map 6343 Project* (LSA 2023b).
TWLTL= two-way-left-turn lane

All study roadway segments listed in Table 4.5.C would be able to implement improvements via payment to the Clovis DIF Program to improve operations and operate at satisfactory LOS levels.

However, in addition to the local roadways' segments listed above in Table 4.5.C, the diverge segment at the SR-168 westbound Herndon Avenue Off-Ramp, under Caltrans jurisdiction, is forecast to operate at an unsatisfactory condition (LOS F) during PM peak hours under existing, near-term (2026) and cumulative (2046) conditions.

As such, improvements would be required at this off-ramp location to improve traffic operations on the freeway mainline. The project would be subject to payment of to the RTMF Program for its fair share contribution to regional improvements. As discussed above in Section 4.5.2.3, the RTMF is

intended to ensure that future development contribute its fair share towards the costs of infrastructure to mitigate the cumulative indirect regional transportation impacts of new growth in a manner consistent with the provisions of the Mitigation Fee Act.

However, since the project has no direct control of implementing improvements at a Caltrans facility, and implementation of recommended improvements would be subject to Caltrans implementation schedule, which is unknown at this time, the deficiency at this location would remain significant and unavoidable.

Impact TRA-1: The project would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measures: No feasible mitigation measures are available.

Level of Significance With Mitigation: Significant and unavoidable. The TIA prepared for the proposed project identifies potential conflicts to the City's established LOS standards for roadways in Clovis. Where feasible, the proposed project would contribute a fair share allotment to improve deficient roadways to meet roadway standards for Clovis, Fresno, and Caltrans. However, one diverge segment under Caltrans' jurisdiction is unlikely to be improved prior to implementation of the proposed project, due to the project having no direct control of implementing improvements at a Caltrans facility and Caltrans' timing schedule for implementation of recommended improvements being unknown at this time. As a result, implementation of the proposed project would conflict with adopted policies that cannot be addressed, and a significant and unavoidable impact would occur.

b. **Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

On December 28, 2018, the California Office of Administrative Law cleared the revised CEQA Guidelines for use. Among the changes to the guidelines was removal of vehicle delay and LOS from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT, not LOS.

The City's TIA Guidelines includes screening criteria, VMT analysis methodology, VMT impact thresholds, and VMT mitigation measures. The TIA Guidelines provide multiple project types and thresholds for land use projects. The project was compared with the screening criteria established in the "Project Screening" section of the TIA Guidelines to check if the project can be screened out of detailed VMT analysis. The following is a brief description of the project in relation with the project screening criteria:

- **Small Project:** The TIA Guidelines states that projects generating less than 500 daily trips could be screened out of a detailed VMT analysis. As previously discussed, the project is estimated to generate 5,564 daily trips. Therefore, the project does not satisfy this screening criteria.

- **Provision of Affordable Housing:** The project proposes to develop market-rate, single-family dwelling units. Therefore, this screening criteria does not apply to the project.

- **Local-Serving Retail:** The project consists of residential land use only; therefore, this screening criteria does not apply to the project.

- **Project Located in a High-Quality Transit Area (HQTA):** The project is not located within an HQTA; therefore, this screening criteria does not apply to the project.

- **Project Located in Low VMT Area:** The project is not located in a low VMT area; therefore, this criterion does not apply to the project.

As shown above, the project could not be screened out from detailed VMT analysis. For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance.

In addition, as described above in Section 4.5.2.4, the City updated the City's General Plan Circulation Element to address VMT by adding new policies. A Supplemental EIR was completed to evaluate the changes to the Circulation Element, and Mitigation Measure TRANS-3 and Mitigation Measure TRANS-4, as included above in Section 4.5.2.4, would apply to proposed residential projects.

Thresholds of Significance. The proposed project consists of residential land use. The TIA Guidelines established VMT per capita as the appropriate metric to evaluate residential land use projects while defining Fresno County as the "region" for determining VMT thresholds. The project would have a significant VMT impact if the baseline project VMT per capita is greater than 87 percent of the baseline Fresno County VMT per capita. Based on the TIA Guidelines, baseline Fresno County VMT per capita is 16.1 and the corresponding threshold is 14.1 (which is 87 percent of 16.1). Therefore, the project would have a significant VMT impact if the project VMT per capita is greater than 14.1.

VMT Analysis. As recommended in the TIA Guidelines, the VMT analysis for the project was conducted using the Fresno COG Activity Based Model (ABM). The model database was updated with the project land use to calculate project VMT. The first step in preparation of this analysis was to update the traffic analysis zones (TAZs) in the model that include the project area. The Fresno COG ABM includes the ability to add or split zones. In order to isolate the project VMT, a new zone was created in the model. The project households were included in the newly created zone for modeling purposes. No project-specific network modifications were required for the model run. A model run was conducted for the existing/base scenario with updated model inputs. The outputs from this updated model run were used to calculate the project VMT per capita. Based on the Fresno COG ABM model output, the project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold. Therefore, based on the TIA Guidelines, the project would have a significant VMT impact.

When a lead agency identifies a significant CEQA impact, the agency must identify feasible mitigation measures in order to avoid or substantially reduce that impact. VMT impacts can be mitigated through more behavioral changes. Enforcement of mitigation measures will be subject to the mitigation monitoring requirements under CEQA, as well as the regular police powers of the agency. These

measures can also be incorporated as a part of plans, policies, regulations, or project designs. Project design features that encourage mode shift from automobiles to transit or nonmotorized modes can therefore help reduce project VMT as well. Typically, VMT reduction and benefits from these project design features are not accounted in the project VMT calculations conducted using the regional travel demand model. Therefore, VMT reduction credit can be accounted for these design features similar to VMT mitigation measures to help reduce the project's VMT impact. Evaluation of VMT reductions should be evaluated using state-of-the-practice methodologies recognizing that many of the VMT mitigation strategies/project design features are dependent on resident performance over time. The following is a detailed description of both and the corresponding potential reduction that could be achieved with implementation of these measures.

Project Design Features. As per information provided by the Project Applicant, the project intends to implement project design features that would help reduce project VMT. VMT reduction that can be achieved by the project's design features has been estimated using the most recent California Air Pollution Control Officers Association's (CAPCOA) "*Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*" (Handbook) dated December 2021[3]. The purpose of the Handbook is to provide accurate, reliable, and standardized emission reduction quantification methods for project analysis and long-term planning. The Handbook includes a wide range of measures that are frequently used to reduce greenhouse gas emissions and provide other benefits, like improved air quality, energy and fuel savings, and water conservation. As transportation-related emissions can be reduced by reducing VMT, the Handbook contains measures aimed to reduce VMT and encourage mode shifts from single-occupancy vehicles to shared (e.g., transit) or active modes of transportation (e.g., bicycle). CAPCOA transportation measures applicable to project VMT reduction are described below.

- **Pedestrian Infrastructure:** The proposed project would provide pedestrian improvements/ sidewalks both internal to the project site and along the project frontage. Providing sidewalk/ pedestrian improvements encourage people to walk instead of drive and thus reduces VMT. CAPCOA transportation measure T-18: "Provide Pedestrian Network Improvement", was used to estimate the VMT reduction due to project related enhancements in pedestrian access and connectivity. The CAPCOA methodology requires existing sidewalk length in the project study area in addition to the length of sidewalk being provided by the project. In order to estimate the existing sidewalk length, a survey was conducted along the proposed project frontage. Based on the survey, the project study area includes approximately 10 miles of sidewalk. The project proposes to add approximately another 1.8 miles of sidewalk/pedestrian access. Therefore, this mitigation measure may reduce the project's VMT by approximately 0.87 percent. However, the proposed project consists of only one land use type (residential), and the project site is currently located in an area surrounded mainly by agricultural and residential uses. The project site is not located within a walkable distance to mixed uses. As such, it is unlikely that residents of the project site would reduce their vehicle use due to implementation of pedestrian improvements, as

[3] California Air Pollution Control Officers Association's (CAPCOA). 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*. December.

residents would still need to travel a significant distance from the project site to access services. This feature is not expected to significantly reduce project VMT impacts.

- **Improve Street Connectivity:** The project proposes to provide an internal circulation network. Projects with higher density of intersections would help increase street connectivity, reduce trip lengths and promote the use of alternative transportation modes of travel. CAPCOA handbook identifies measure *T-17: Improve Street Connectivity* to evaluate project street network. The measure is recommended as an appropriate design feature for plans within urban or suburban areas. Measure T-17 estimates that an increased density of vehicular intersections improves street connectivity and helps in reduction in GHG emissions and corresponding VMT. As included in the CAPCOA handbook, this measure could be applied to a project for:

  > *'Projects that increase intersection density would be building a new street network in a subdivision or retrofitting an existing street network to improve connectivity (e.g., converting cul-de-sacs or dead-end streets to grid streets).'*

  The measure establishes the following numerical formula of VMT reduction due to increased intersection density and improved street connectivity:

  $$A = \frac{B-C}{C} * D$$

  Where,

  A = Percent Reduction in GHG/VMT emission from vehicle Travel

  B = Intersection Density in project site with measure

  C = Average Intersection Density for Typical developments (36)

  D = Elasticity of VMT with respect to intersection density (-0.14)

  CAPCOA suggests application of different VMT mitigation measures at different scales— project/ site scale or community/plan scale. Based on the CAPCOA Handbook, this mitigation measure is applicable at a plan/community scale, with appropriate limitations as described in the VMT Analysis section of the TIA. Due to these improved vehicular network connection and project design features, the project would achieve 3.39 percent reduction in VMT compared to the project VMT that was estimated from the regional travel demand model.

  However, the project is a gated community which has specified entry/exit ways that reduces accessibility to all project related traffic. While the increased intersection density would facilitate a greater number of short trips, the project consists of only a single land use type (residential) and the amount of internal capture (trips that can be fulfilled within the project, with both origin and destinations within the project site) would be minimal. Residents of the project site would still need to travel off site to access a variety of services. As such, increased street connectivity within the project site is not expected to significantly reduce project VMT impacts.

- **Bicycle Infrastructure/Improvements:** The project proposes to construct a total of 1.19 miles of bike lanes along the project frontage. Similar to pedestrian facilities, these bicycle design features included in the project can encourage an increase in active transportation mode share in the area. The CAPCOA manual was utilized to estimate the reduction of project VMT due to proposed bicycle improvements. Specifically, CAPCOA transportation measure T-19A: "Construct or Improve Bike Facility" was deemed applicable to estimate the VMT reduction due to project bicycle features. According to the measure, providing bicycle infrastructure helps to improve biking conditions within an area. This encourages a mode shift on the roadway parallel to the bicycle facility from vehicles to bicycles, displacing VMT and thus reducing GHG emissions. Based on CAPCOA estimates, the project bicycle design features have a potential to reduce up to 0.01 percent of the project VMT.

- **Provide Electric Vehicle (EV) Parking and EV Charging Infrastructure:** Accessible EV parking and provision of charging for electric vehicles in the residential units would encourage the use of EVs. The latest California Green Building Standards (CALGreen), California Building Code, requires provision of infrastructure to accommodate electric vehicle chargers for new single family and attached dwelling units/townhouses. For new construction projects such as apartments, condominiums, hotels, and motels, CALGreen code requires the project to provide EV charging stations as a percentage of the total project parking. While it is understood that provision of electric charging infrastructure/stations might not reduce VMT given that the effectiveness of this measure for VMT reduction is subject to the number of project residents that would make use of electric vehicles instead of gasoline-powered vehicles (which is a matter of personal choice), it will reduce GHG, which can be considered equivalent to reduction in VMT. According to CAPCOA, provision of additional electric charging stations, in addition to CALGreen requirements, can be considered as a GHG/VMT mitigation. Provision of EV charging infrastructure has the potential to achieve a maximum VMT reduction of up to 11.9 percent. Currently, pursuant to CALGreen requirements and Mitigation Measure GHG-1, the project would provide electric vehicle charging capabilities in proposed residential units as part of the final project designs. However, the project would not provide additional EV charging points and stations. As such, while this project design feature has the potential to reduce GHG emissions, no direct VMT reduction has been accounted for this project design feature.

Conclusion.¶ In conclusion, the project would include design features that aim to promote overall mobility with the goal of reducing VMT and reducing greenhouse gas emissions. The project is consistent with Mitigation Measure TRANS-3 and Mitigation Measure TRANS-4 of the Subsequent EIR for the 2014 Clovis General Plan Circulation Element Update. Mitigation Measure TRANS-3 requires bicycle facilities for land uses that generate more than 500 daily trips, and Mitigation Measure TRANS-4 requires improved street connectivity to facilitate shorter vehicle trips and greater numbers of walk and bike trips. Implementation of the above project design features may possibly reduce the project's VMT by approximately up to 4.24 percent. However, due to the nature of the project and its location, the project design features identified in this section could help offset some of the VMT impacts of the project but will not reduce the impact to a less than significant level. Therefore, the project will have a significant and unavoidable impact.

Impact TRA-2: The proposed project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measures: No feasible mitigation measures are available.

Level of Significance With Mitigation: Significant and unavoidable. The proposed project would include project design features that could reduce the project's VMT by up to 4.24 percent. However, this potential reduction would not help the project reach the required threshold of 14.1 VMT per capita. As a result, implementation of the proposed project would conflict with CEQA Guidelines section 15064.3, subdivision (b), and a significant and unavoidable impact would occur.

c. **Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots, averaging 3,329 square feet within the 71.54-acre project site. The project site and annexation area are surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north. Implementation of the proposed project would increase the amount of vehicle traffic, which would require the improvement and expansion of the roadway network in the project area. The proposed project would include the extension of existing and construction of new roadways, bikeways, and sidewalks that would be constructed pursuant to City standards and would increase vehicle and pedestrian access and safety in the study area. New transportation facilities would be designed according to applicable federal, State, and local design standards, which would minimize traffic hazards. The proposed project would also include the installation of traffic signals where recommended as study intersection improvements, as detailed in Table 4.5.B above, to meet the City's LOS standards. These improvements would improve safety and reduce traffic conflicts at study intersections. Traffic signals would be installed at the direction of the City Engineer upon meeting the necessary traffic warrants.

Sight Distance Analysis. Vehicular access to the project site would be provided by six intersections: three on Baron Avenue, two on Hammel Avenue, and one on Perrin Avenue. All intersections would operate as full-access intersections. A sight distance analysis was conducted at the project intersections along Baron Avenue and future intersection of Baron Avenue/Perrin Road. For purposes of this analysis, only the stopping sight distance and corner sight distance were evaluated.

According to the Caltrans *Highway Design Manual*[4] (HDM) (dated July 2020), the stopping sight distance is the minimum sight distance along a roadway required to allow a driver to decrease their speed from the design speed to a complete stop. The corner sight distance is the minimum sight distance in which a driver at a stop-controlled approach can see oncoming traffic on the major street to safely maneuver onto the roadway. For purposes of this analysis, the posted speed limit of 35 mph

[4] Caltrans. 2020. Highway Design Manual – Seventh Edition. July 1. Website: https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm (February 2023).

has been considered as the design speed for Baron Avenue. As stated in Table 201.1 of the HDM, the minimum stopping sight distance for a design speed of 35 mph is 250 feet. Therefore, the minimum stopping sight distance for all project intersections was determined to be 250 feet.

As for corner sight distance, Section 405.1 of the HDM states that corner sight distance requirements are not applicable for urban intersections unless signalized. At signalized intersections, the minimum corner sight distance was based on design speed, time gap, and type of vehicle for the minor road vehicle to enter the major road. Based on these design speeds and the requirements established in the HDM, it was determined that minimum corner sight distances of the project intersections and future intersection are as follows:

- Baron Avenue/Project Intersection 4: 390 feet
- Baron Avenue/Project Intersection 5: 390 feet
- Baron Avenue/Project Intersection 6: 390 Feet
- Baron Avenue/Perrin Road: 390 feet

Based on the sight distance analysis in the TIA, the proposed project intersections achieve adequate sight distances and have clear sight triangles for drivers.

Safe Routes to School Analysis. The project site would be under the jurisdiction of the Clovis Unified School District (CUSD). The schools in the vicinity of the project site currently include Riverview Elementary School, which is located approximately 2 miles from the project site, and Granite Ridge Intermediate School and Clovis North High School, both of which are located approximately 2.5 miles from the site. It should be noted that the project is within the vicinity of the proposed Heritage Grove Specific Plan project. Based on the project description of this project, an elementary school is being proposed within Planning Area 9 of the Specific Plan. Though the completion date for this elementary school is still undetermined, elementary school students from the proposed project are anticipated to attend this school once completed.

The proposed project would result in the construction of sidewalks along the project frontage, as well as contribute to the Clovis DIF and the RTMF programs as applicable for improvements at roadway segments and intersections within the project study area, which would include the addition of sidewalks and/or bike lanes along segments and installation of signals at intersections with marked crosswalks and other safety improvements. As such, the project would contribute safe walking and biking routes from the project to nearby schools.

In addition, the proposed project would not include any sharp curves or other roadway design elements that would create dangerous conditions. The project design features would be required to comply with standards set by the City's General Plan and City Engineer. The proposed project would also be required to submit plans to the Clovis Fire Department (CFD) for review and approval prior to the issuance of building permits to ensure there are no substantial hazards associated with the project design. Therefore, the proposed project would not increase hazards due to design features or incompatible uses, and a less than significant impact would occur.

Impact TRA-3: The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Level of Significance Without Mitigation**:** Less Than Significant Impact.

d. **Would the project result in inadequate emergency access?**

Vehicular access to the project site would be provided by six intersections: three on Baron Avenue, two on Hammel Avenue, and one on Perrin Avenue. All intersections would operate as full-access driveways. Additionally, the project would also include an emergency access intersection on Perrin Avenue that would provide exclusive access for emergency response vehicles to the project site. An enhanced roadway network that accommodates forecasted travel demand, through improvements identified in the TIA, would also provide adequate emergency access. Additionally, the proposed project's site plan would be subject to review and approval by the CFD and the City's Engineering Division to ensure the project includes adequate emergency access.

As a result, implementation of the proposed project would result in a less-than-significant impact related to emergency access. No mitigation is required.

Impact TRA-4: The project would not result in inadequate emergency access.

Level of Significance Without Mitigation: Less Than Significant Impact.

4.5.3.3 Cumulative Impacts

A proposed project would have a significant effect on the environment if it—in combination with other projects—would contribute to a significant cumulative impact related to transportation. The cumulative impact analysis for transportation considers the larger context of future development of the City of Clovis as envisioned by the General Plan and relies upon the projections of the General Plan and General Plan EIR. Cumulative impacts on transportation would be those impacts that result from continued buildout of the General Plan.

The proposed project would be consistent with applicable regulations, including the City's General Plan policies and ATP guidelines as it relates to transit, bicycles, and pedestrian facilities, as described in Section 4.5.2. The proposed project would not conflict with existing and planned transit facilities in the City, and would construct bicycles, and pedestrian facilities that would increase the connectivity of the City and further implement the City's General Plan policies and meet ATP multi-modal transportation goals.

The proposed project would not include the construction of hazardous or incompatible design features in the project site. The proposed project's plans would be subject to review and approval by the CFD and the City's Engineering Division to ensure the project includes adequate emergency access.

The TIA identifies roadways that would conflict with LOS standards of the Cities of Clovis and Fresno, and Caltrans with implementation of the proposed project. In most cases, in combination with cumulative conditions, the roadways and segments would be improved to meet the standards of the Clovis, Fresno, and Caltrans. However, one diverge segment in Caltrans' jurisdiction is unlikely to be improved to meet Caltrans' standards prior to implementation of the proposed project due to the project having no direct control of implementing improvements at a Caltrans facility and Caltrans' timing schedule for implementation of recommended improvements being unknown at this time. As

discussed above, implementation of the proposed project would result in conflicts with policies related to LOS standards that would not be able to be improved due to existing constraints. As a result, a significant and unavoidable cumulative impact would occur.

The proposed project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold of 14.1. Although the project includes design features that could reduce project's VMT by up to 4.24 percent, this potential reduction would not help the project meet the required threshold of 14.1 VMT per capita. As a result, a significant and unavoidable VMT impact would occur.

Impact TRA-5: The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to transportation.

Level of Significance Without Mitigation: Potentially Significant Impact.

Mitigation Measures: No feasible mitigation measures are available.

Level of Significance With Mitigation: Significant and Unavoidable Impact.

5.0 ALTERNATIVES

In accordance with the California Environmental Quality Act (CEQA) and the *State CEQA Guidelines* (Section 15126.6), an Environmental Impact Report (EIR) must describe a range of reasonable alternatives to the project, or to the location of the project, that would "feasibly attain most of the project's basic objectives, while avoiding or substantially lessening any of the significantly adverse environmental effects of the project." An EIR does not need to consider every conceivable alternative to a project; rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The range of alternatives required in an EIR is governed by a "rule of reason."

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots, averaging 3,329 square feet, into single family residences in the 71.54-acre project site. The proposed project would be developed in three phases over a period of 33 months and would introduce a maximum of 590 new residential units in the City of Clovis. The proposed project has been described and analyzed in Chapter 4.0 with an emphasis on determining and evaluating potential significant impacts resulting from the project and identifying mitigation measures to avoid or reduce these impacts to a less-than-significant level. The following identifies and discusses three feasible alternatives to the proposed project, compares the impacts of each alternative to the impacts of the project, and determines whether the alternatives meet the basic project objectives and avoid or reduce project-related significant impacts.

5.1 SELECTION OF ALTERNATIVES

Section 21100 of the Public Resources Code and Section 15126.6 of the *State CEQA Guidelines* require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the proposed project and that would avoid or substantially lessen any of the significant environmental impacts. When selecting a set of alternatives to analyze, Section 15126.6(f) of the *State CEQA Guidelines* also discusses the consideration of alternative locations and determining whether any of the significant effects of a proposed project would be avoided or substantially lessened by putting the project in another location.

Based on the criteria listed above, three alternatives have been selected to avoid or substantially lessen the significant impacts of the proposed project. Therefore, the alternatives considered in this Draft EIR include the following:

- **No Project Alternative**: Under the No Project Alternative, the project site would not be developed, and existing land uses would remain. No modifications to existing site access or infrastructure would occur, and the annexation of 246 acres to the City of Clovis would not occur.

- **Reduced Project Alternative:** Under the Reduced Project Alternative, the proposed project would reduce the proposed density of 8.25 dwelling units per acre for (DU/acre) for the proposed project to 4.12 DU/acre, for a total of 295 residential units. Proposed site access and

infrastructure improvements would remain the same as those identified for the proposed project. Annexation 246 acres, as proposed by the project would occur.

- **Increased Phase Density Alternative:** Under the Increased Phase Density Alternative 590 residential units would be constructed within the 71.54-acre project site, but the residential units would be constructed on approximately 24 acres on northern portion of the project site and 24 acres on the southern portion of the project site to reduce the overall construction period. The remaining approximately 23 acres of the project would be developed as public open space. Overall density of the project site would remain the same as the proposed project (8.25 DU/acre), but each 24-acre development area would have density of 12.3 DU/acre. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project. Annexation 246 acres, as proposed by the project would occur.

5.2 PROPOSED PROJECT

5.2.1 Project Description

As described earlier in Chapter 3.0, Project Description, the proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. The proposed project would be developed in three phases, as described below.

5.2.1.1 Phase 1

Phase 1 would include the development of approximately 136 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress street on Perrin Avenue. Phase 1 would include the construction of approximately 44 parking spaces, an approximately 8,745 square-foot community pool and recreation area, an approximately 13,930-square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

5.2.1.2 Phase 2

Phase 2 would include the development of approximately 214 single-family residential units with an average size of approximately 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress street along the future southern extension of Baron Avenue, and one gated ingress and egress street along

Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

5.2.1.3 Phase 3

Phase 3 of the proposed project would include the development of approximately 240 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress streets located along the future southern extension of Baron Avenue, and through one gated egress street access located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985-square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue.

In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot-long extension of Baron Avenue south of East Behymer Avenue.

5.2.2 Project Objectives

Each alternative is analyzed to determine whether it achieves the basic objectives of the proposed project. As stated in Chapter 3.0, Project Description, the City has established the following intended specific objectives for the proposed project that would serve to aid decision-makers in their review of the proposed project and its associated environmental impacts:

- Provide residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis.
- Establish a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand.
- Implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land.
- Provide infrastructure that meets City Standards and is integrated with existing and planned facilities and connections.
- Develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

5.2.3 Significant Unavoidable Impacts of the Proposed Project

As described in Chapter 4.0, Evaluation of Environmental Impacts, impacts in the following areas would be potentially significant without the implementation of mitigation measures but would be

reduced to a less than significant level if the mitigation measures recommended in this report are implemented: Section 4.1, Agricultural Resources; Section 4.2, Air Quality; Section 4.3 Greenhouse Gas Emissions; and Section 4.4 Noise. Impacts in the following area would be significant unavoidable impacts: Section 4.5, Transportation.

For the purpose of this analysis, it is assumed that all of the alternatives would comply with applicable federal, State, and local regulations, policies, and ordinances. It is also assumed that all mitigation measures required for implementation of the proposed project would apply to the project alternatives and similar corresponding reductions in impacts would be achieved through such mitigation. Therefore, the following discussion focuses on the ability of the alternatives to reduce significant unavoidable project impacts.

5.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

State CEQA Guidelines Section 15126.6(c) provides that an EIR "should also identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts."

The following provides a description of potential alternatives that were identified and considered by the City, and the reasons why they were ultimately not selected for further evaluation in this EIR. In dismissing these alternatives from detailed evaluation in this EIR, primary considerations were whether the alternatives would meet *most* of the project objectives, or whether the alternatives were *feasible*, or whether they would *reduce the significant impacts* of the proposed project. The following alternatives was considered but was dismissed from further consideration as explained below.

- **Off-Site Alternative.** This alternative was not considered feasible, because there were no other feasible locations for the proposed project to be located due to ownership. Although relocation of the proposed project could serve to fulfill the project objectives, relocation of the project site to other areas near the City of Clovis would have increased the possibility of impacting special-status animal species.

- **Increased Density Alternative.** This alternative was not considered feasible, because increasing the density and the overall number of residential units within the project site would result in design limitations and potential on-site safety impacts due to an increased population, relative to the proposed project. Although increasing the density of proposed project could serve to fulfill the project objectives, the potential on-site and off-site operational impacts are anticipated to increase significantly with increased density.

5.4 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

The following provides a description of the No Project Alternative and its anticipated environmental impacts. The emphasis of the analysis is on comparing the anticipated environmental impacts of the

No Project Alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the No Project Alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

5.4.1 No Project Alternative Description

The No Project Alternative assumes that the proposed project would not be developed and that the project site would generally remain in its current condition. The project site would continue to be agriculture and rural residential uses. No modifications to existing site access or infrastructure would occur. No annexation to the City of Clovis would take place.

5.4.2 Analysis of the No Project Alternative

The potential impacts associated with the No Project Alternative are described below.

5.4.2.1 Aesthetics

Under the No Project Alternative, no construction activities would occur, and the project site would remain undeveloped. The proposed project would result in less-than-significant impacts related to change in views of an around the project, character of the site, and lighting. As a result, with implementation of the No Project Alternative, no impacts to aesthetics would occur and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.2 Agriculture and Forestry Resources

Under the No Project Alternative, no construction activities would take place, and the project site would remain undeveloped. The project site is currently under a Williamson Act Contract, and under this alternative, no cancellation of a Williamson Act contract would be needed. Implementation of Mitigation Measure AG-2 and Regulatory Compliance Measure AG-3 would not be required. No forestry resources are located within the project site or annexation area. With implementation of the No Project Alternative, impacts to agriculture and forestry would not occur and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.3 Air Quality

Under the No Project Alternative, no construction activities would occur, and the site would remain undeveloped. Therefore, the proposed project's construction and operational less than significant criteria pollutant impacts would be avoided under this alternative; therefore, implementation of Regulatory Compliance Measure AIR-2 would not be required. With implementation of the No Project Alternative, impacts to air quality would not occur and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.4 Biological Resources

Under the No Project Alternative, no construction or grading activities would occur on the project site. As a result, the proposed project's potentially significant impacts to special-status species, federally protected wetlands and nesting birds would be avoided under this alternative and implementation of Mitigation Measures BIO-1 through BIO-4 and Regulatory Compliance Measure

BIO-1 would not be required. In addition, under the No Project Alternative, no construction activities would occur that would impact a sensitive natural community, interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. With implementation of the No Project Alternative, impacts to biological resources would not occur and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.5 Cultural Resources

No construction or grading activities would occur on the project site under the No Project Alternative. Therefore, the proposed project's potential impacts that would result from construction at the project site, including potentially significant impacts related to disturbance of previously unknown archaeological resources and human remains would be avoided under this alternative and implementation of Mitigation Measures CUL-1 and CUL-2 would not be required. With implementation of the No Project Alternative, impacts to cultural resources would not occur and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.6 Energy

Under the No Project Alternative, no construction activities would occur, and the site would remain undeveloped. There would be no energy usage associated with construction or operation of the No Project Alternative, therefore, no impacts to energy would occur. When compared to the proposed project, this alternative would result in fewer impacts to energy.

5.4.2.7 Geology and Soils

Under the No Project Alternative, no construction or grading activities would occur on the project site. As a result, the proposed project's potential impacts that would result from construction at the project site, including potentially significant impacts unknown unique paleontological resources or unique geologic features would be avoided under this alternative, and implementation of Mitigation Measure GEO-1 would not be required. Additionally, under this alternative, no construction activities that would expose people working or residing in the project site to geologic hazards, and result in soil erosion would occur. With implementation of the No Project Alternative, impacts to geology and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.8 Greenhouse Gas Emissions

Under the No Project Alternative, no construction activities would occur, and the site would remain undeveloped. There would be no greenhouse gas (GHG) emissions associated with construction and operation of the proposed project. The proposed project's potentially significant operational GHG emission impacts would be avoided under this alternative and implementation of Mitigation Measure GHG-1 would not be required. Therefore, implementation of the No Project Alternative would avoid the less than significant with mitigation GHG impact associated with the proposed project. Therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.9 Hazards and Hazardous Materials

Under this alternative, changes in land use would not occur and the existing conditions related to the accidental release of, or exposure to, hazardous materials would remain the same. Although the existing agricultural operations could continue to operate, the use of solvents or fuels related to maintenance of operations as proposed by the project would not occur. Therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.10 Hydrology and Water Quality

Under this alternative, the existing pervious surfaces and agricultural land would not be altered. With no physical changes occurring within the project site, the existing drainage patterns of the project site would not be altered. In addition, this alternative would not create a potential to violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality, because this alternative would not change the existing conditions within the project site. As a result, this alternative would result in fewer impacts related to hydrology and water quality when compared to the proposed project.

5.4.2.11 Land Use and Planning

Under this alternative, the land uses within project site would not change. Similar to the proposed project, this alternative would not divide an existing community or conflict with an existing land use plan. As a result, this alternative would result in similar impacts when compared to the proposed project.

5.4.2.12 Mineral Resources

There are no mineral resources located within the project site, and no mineral resources would be adversely affected under this alternative or the proposed project. As a result, this alternative would similarly result in no impacts to mineral resources.

5.4.2.13 Noise

Under the No Project Alternative, no construction activities would occur, and the site would remain undeveloped. There would be no noise associated with the construction and operation of the proposed project. The proposed project's potentially significant construction and operational noise impacts would be avoided under this alternative and implementation of Mitigation Measures NOI-1.1 and NOI-1.2 would not be required. In addition, the proposed project's construction and operational less than significant vibration impacts would be avoided under this alternative. With implementation of the No Project Alternative, there would be no impacts related to noise and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.14 Population and Housing

Under this alternative population and housing would not be affected. This project would not displace any people or result in new residential units. As a result, this alternative would result in fewer impacts related to population and housing when compared to the proposed project.

5.4.2.15 Public Services

Under this alternative, the population of the project site would not change and there would be no increased demand for public services, including fire protection, police protection, public schools, parks and recreational facilities. The proposed project would increase the population of the project site, but a less-than-significant impact would occur. When compared to the proposed project, this alternative would result in fewer impacts because the population within the project site would not increase.

5.4.2.16 Recreation

Under this alternative, the land uses within the project site would not change and would not affect recreational facilities and open space. As a result, when compared to the proposed project, this alternative would result in fewer impacts related to construction and/or expansion of the recreational facilities.

5.4.2.17 Transportation

Under the No Project Alternative, no uses would be developed on the project site that would generate higher traffic levels that create and contribute to unsatisfactory level of service (LOS) conditions in roadways and contribute to cumulative VMT impacts in the City of Clovis and Fresno County. Therefore, implementation of the No Project Alternative would avoid the significant and unavoidable LOS and VMT impacts associated with the proposed project. Therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.18 Tribal Cultural Resources

No construction or grading activities would take place on the project site under the No Project Alternative. Therefore, the proposed project's potential impacts that would result from construction at the project site, including potentially significant impacts related to disturbance of previously unknown tribal cultural resources would be avoided under this alternative and implementation of Mitigation Measures CUL-1 and CUL-2, which address impacts to previously unknown tribal cultural resources, would not be required. With implementation of the No Project Alternative, there would be no impacts to tribal cultural resources and, therefore, this alternative would result in fewer impacts when compared to the proposed project.

5.4.2.19 Utilities and Service Systems

Under this alternative, no land uses or physical changes would occur within the project site, and therefore, no increased demand for utilities and service systems, including water supply, wastewater, stormwater, and electricity, natural gas, and telecommunications would occur. The proposed project would include water service and wastewater services through connections to the City's systems to accommodate population increase in the project site. As a result, this alternative would result in fewer impacts to utilities when compared to the proposed project.

5.4.2.20 Wildfire

The project site is located in an area mapped by CAL FIRE as LRA Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a very high fire

hazard severity zone (VHFHSZ). Under this alternative, no changes to the existing uses within the project site would occur. Similar to the proposed project, this alternative would not exacerbate wildfire risks. Because the proposed project would result in physical changes to the project site and this alternative would not, this alternative would result in fewer impacts related to wildfire when compared to the proposed project.

5.4.3 Comparison to Project Objectives

As discussed above, the No Project Alternative would avoid all of the less than significant and significant unavoidable impacts of the proposed project. However, the No Project Alternative would also not achieve any of the objectives of the proposed project. The No Project Alternative would not provide residential housing opportunities that are visually attractive and accommodate future housing demand in Clovis; establish a mixture of housing types, sizes, and densities that collectively provide for local and regional housing demand; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; provide infrastructure that meets City Standards and is integrated with existing and planned facilities and connections; or develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements. As a result, this alternative would not meet any of the objectives of the proposed project.

5.5 ALTERNATIVE 2: REDUCED PROJECT ALTERNATIVE

The Reduced Project Alternative is being studied as a viable alternative to the proposed project in compliance with requirements of CEQA, and would involve reducing the size of the proposed project by reducing the proposed residential density of 8.25 DU/acre in the site to a density of 4.12 DU/acre. The Reduced Project Alternative would reduce the total proposed residential units from 590 to 295. Annexation of land to the City of Clovis, as well as other improvements, including site access and infrastructure improvements, would be the same as the proposed project.

5.5.1 Analysis of the Reduced Project Alternative

The potential impacts associated with the Reduced Project Alternative are described below.

5.5.1.1 Aesthetics

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. However, due to the reduced number of residential units proposed under this alternative, this alternative would result in less density within the project site. Similar to the proposed project, this alternative would change the land use within the project site and would result in changes to views, site character, and lighting. Although this alternative would not result in the same number of residential units as the proposed project, this alternative would result in similar, less-than-significant impacts to aesthetics.

5.5.1.2 Agriculture and Forestry Resources

Similar to the proposed project, this alternative would result in less than significant impacts related to the conversion of agricultural land to residential land use and potentially significant impacts related to cancellation of a Williamson Act contract. Implementation of Mitigation Measure AG-2

and Regulatory Measure AG-3 would be required. No forestry resources would be impacted by this alternative or the proposed project. Because this alternative would develop the entire site, similar to the proposed project, this project would result in a similar, less-than-significant impact to agriculture resources.

5.5.1.3 Air Quality

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. However, due to the reduced number of housing proposed under this alternative, this alternative may result in reduced construction and operational emissions, including those due to vehicle trips, compared to those under the proposed project. However, construction of the proposed project would still require implementation of SJVAPCD Regulation VIII dust control measures to reduce short-term construction period air quality impacts. Thus, this alternative would still require the implementation of regulatory compliance Measure AIR-2 to reduce the impact to less than significant level. All other air quality impacts would be reduced compared to those of the proposed project and would be less than significant. As a result, this alternative would result in fewer impacts when compared to the proposed project.

5.5.1.4 Biological Resources

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. Due to the reduced number of residential units proposed under this alternative, this alternative would result in reduced construction and operational emissions. However, construction of the proposed project would still result in ground-disturbing activities that could impact special-status species, federally protected wetlands and nesting birds. However, this alternative would implement Mitigation Measures BIO-1 through BIO-4 and Regulatory Compliance Measure BIO-1 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to biological resources would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.5.1.5 Cultural Resources

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. Due to the reduced number of residential units proposed under this alternative, this alternative would result in reduced construction and operational emissions. However, construction of the proposed project would still result in ground-disturbing activities that could impact previously unknown archaeological resources and human remains. However, this alternative would implement Mitigation Measures CUL-1 and CUL-2 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to cultural resources would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.5.1.6 Energy

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. However, due to the reduced number of housing proposed under this alternative, this alternative would result in reduced construction and operational energy use as a result of fewer mobile sources (e.g., cars, trucks, and buses) and less construction of

structures. As a result, this project would result in less energy consumption and fewer impacts when compared to the proposed project.

5.5.1.7 Geology and Soils

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. Due to the reduced number of residential units proposed under this alternative, this alternative would result in reduced construction and operational emissions. However, construction of the proposed project would still result in ground-disturbing activities that could impact previously unknown unique paleontological resources or unique geologic features. However, this alternative would implement Mitigation Measure GEO-1 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to geology and soils would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.5.1.8 Greenhouse Gas Emissions

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. However, due to the reduced number of housing proposed under this alternative, this alternative would result in reduced construction and operational GHG emissions, including those due to mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). The Reduced Project Alternative would still require consistency with the 2022 Scoping Plan, which requires the project to implement design features to meet State GHG reduction and equity prioritization goals. As such, this alternative would still require implementation of Mitigation Measure GHG-1 to ensure consistency with the 2022 Scoping Plan and result in a less than significant impact with mitigation**.** All other GHG project and would be less than significant.

5.5.1.9 Hazards and Hazardous Materials

Similar to the proposed project, this alternative would include changes in land use that could result in the accidental release of, or exposure to, hazardous materials. Although the number of residential units would be less than the proposed project, potential impacts related to the use of solvents or fuels related to maintenance of operations would also occur. Therefore, this alternative would result in similar impacts when compared to the proposed project.

5.5.1.10 Hydrology and Water Quality

Under this alternative, the existing pervious surfaces and agricultural land would be altered with construction of residential units. Similar to the proposed project, the existing drainage patterns of the project site would be altered over the entire project site. In addition, this alternative would affect water quality standards and waste discharge requirements, and degrade surface or ground water quality. However, these impacts would be similar to the proposed project given disturbance of the project site. As a result, this alternative would result in similar, less than significant impacts related to hydrology and water quality when compared to the proposed project.

5.5.1.11 Land Use and Planning

Under this alternative, the land uses within project site would change to residential uses. However, similar to the proposed project this alterative would not divide an existing community or conflict with an existing land use plan. As a result, this alternative would result in similar impacts when compared to the proposed project.

5.5.1.12 Mineral Resources

There are no mineral resources within the project site, and no mineral resources would be adversely affected under this alternative or the proposed project. As a result, this alternative would similarly result in no impacts to mineral resources.

5.5.1.13 Noise

Construction activities under the Reduced Project Alternative would involve the use of generally the same types of construction equipment and vehicles as the proposed project, and construction activities would occur at the same distances from the nearest receptors as under the proposed project. As a result, the daily construction noise levels generated under this alternative would be comparable to that generated by the construction of the proposed project, and this alternative would also result in a potentially significant construction noise impacts at the nearby sensitive receptors. As such, Mitigation Measure NOI-1.1 would be required. However, because the number of total units included under this alternative would be smaller than the proposed project, the duration of construction would be reduced, and the duration of exposure to noise impacts would be slightly shorter. Additionally, the Reduced Project Alternative would reduce project-generated traffic noise compared to the proposed project, which would reduce impacts related to excessive interior noise levels in the project site. Implementation of Mitigation Measure NOI-1.2 could still be required to ensure the project complies with the City's interior noise standard of 45 dBA CNEL related to traffic-generated noise. In addition, as with the proposed project, construction and operational vibration impacts would be less than significant under this alternative. With implementation of this alternative, potential noise impacts would be fewer when compared to the proposed project, due to the reduced number of residential units proposed.

5.5.1.14 Population and Housing

Under this alternative population and housing would increase over the existing conditions of the project site, however this alternative would result in fewer residential units and less population, when compared to the proposed project. However, the proposed project would result in less-than-significant impacts to population and displacement of existing residents. As a result, this alternative would result in similar less than significant impacts related to population and housing when compared to the proposed project.

5.5.1.15 Public Services

Under this alternative, the population of the project site would be less than the proposed project. The proposed project would result in less-than-significant impacts resulting from increased demand for public services, including fire protection, police protection, public schools, parks and recreational facilities. Similar to the proposed project, population within the project site would increase,

however the population within the project site would not increase to the level of the proposed project, due to fewer residential units. Fewer units would also generate fewer financial resources for funding of said facilities, (school fees, development impact fees, Clovis Fire Department fees, and property taxes). Compared to the proposed project, this alternative would result in fewer impacts, because the population within the project site would be less than that of the proposed project.

5.5.1.16 Recreation

Under this alternative, fewer residential units would be constructed when compared to the proposed project. As a result, demand for recreational facilities and open space would increase over existing conditions but would result in less demand when compared to the proposed project. Fewer units would also generate fewer financial resources for funding of said facilities, (school fees, development impact fees, park fees, and property taxes). As a result, when compared to the proposed project, this alternative would result in fewer impacts related to construction and/or expansion of the recreational facilities.

5.5.1.17 Transportation

Under the Reduced Project Alternative, the project site would be developed at a lower residential density than what was proposed in the proposed project. As such, this alternative would generate lower traffic levels than those of the proposed project. However, the proposed project would still increase traffic levels in the nearby circulation system, which could potentially create and contribute to unsatisfactory LOS conditions in roadways in the City. Additionally, the Reduced Project Alternative would generate lower VMT than the proposed project due to reduced vehicle traffic. However, the Reduced Project Alternative would still contribute to cumulative VMT impacts in the City of Clovis and Fresno County. With implementation of the Reduced Project Alternative**, the significant unavoidable LOS and VMT impacts that would result from the proposed project could still occur, despite the reduction in traffic and VMT.** With implementation of this alternative, potential transportation impacts would be fewer when compared to the proposed project.

5.5.1.18 Tribal Cultural Resources

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. Due to the reduced number of residential units proposed under this alternative, this alternative would result in reduced construction and operational emissions. However, construction of the proposed project would still result in ground-disturbing activities that could impact previously unknown tribal cultural resources. However, this alternative would implement Mitigation Measures CUL-1 and CUL-2 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to tribal cultural resources would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.5.1.19 Utilities and Service Systems

Under this alternative, the land uses and physical changes would occur within the project site would be similar to the proposed project, and would increase the demand for utilities and service systems. However, because this alternative would include half as many residential units as the proposed project, the demand related to water supply, wastewater, stormwater, and electricity, and

telecommunications would be less than the proposed project. As a result, this alternative would result in fewer impacts to utilities and service systems when compared to the proposed project.

5.5.1.20 Wildfire

The project site is located in an area mapped by CAL FIRE as LRA Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not within a VHFHSZ. Similar to the proposed project, this alternative would not exacerbate wildfire risks. Because this alternative would result in physical changes that would be similar to the proposed project, this alternative would result in similar less than significant impacts.

5.5.2 Comparison to Project Objectives

As discussed above, the Reduced Project Alternative would reduce the overall size of the project by reducing the density of residential uses in the project site. The Reduced Project Alternative would partially address the City of Clovis' future housing demand by providing a lower amount of visually attractive residential housing opportunities; partially meet local and regional housing demand by providing a single housing type, size and density; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. However, because this alternative would provide half of the residential units and minimize mixture of housing types of the proposed project, this alternative would partially meet the objectives of the project.

5.6 ALTERNATIVE 3: INCREASED PHASE DENSITY ALTERNATIVE

The Increased Phase Density Alternative would involve focusing development of the proposed 590 single-family residences, but the development would occur in two, approximately 24-acre areas located in the southern and northern portions of the project site. The central portion of the project site, approximately 23 acres in size, would be developed as open space. Annexation of land to the City of Clovis would be the same as the proposed project. Location and design of vehicle access and infrastructure improvements to facilitate development in the two development areas would be similar to the proposed project.

5.6.1 Analysis of the Increased Phase Density Alternative

The potential impacts associated with Increased Phase Density Alternative are described below.

5.6.1.1 Aesthetics

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. This alternative would result in the massing of buildings on the northern and southern portions of the project site, but similarly to the proposed project, this alternative would change the land use within the project site and would result in changes to views, site character, and lighting. As a result, this alternative would result in similar, less-than-significant impacts to aesthetics.

5.6.1.2 Agriculture and Forestry Resources

Similar to the proposed project, this alternative would result in less than significant impacts related to the conversion of agricultural land to residential land use and potentially significant impacts related to the cancellation of a Williamson Act contract. Implementation of Mitigation Measure AG-2 and Regulatory Compliance Measure AG-3 would still be required. No forestry resources would be impact by this alternative or the proposed project. Because this alternative would develop the entire site with residential and open space uses, similar to the proposed project, this project would result in a similar, less-than-significant impact to agriculture resources.

5.6.1.3 Air Quality

Similar to the proposed project, the Increased Phase Density Alternative would involve construction and operational activities on the project site. This alternative would concentrate construction activities in specific locations of the project site, which would limit the spread of construction emissions. The Increased Phase Density Alternative would require constructing more houses per construction phase, but would limit the overall construction period for each phase compared to the proposed project. Operational emissions under this alternative, including those due to vehicle trips, would be similar to emissions under the proposed project as the number of proposed units under this alternative has not been reduced. Construction of the proposed project would still require implementation of SJVAPCD Regulation VIII dust control measures through implementation of Regulatory Compliance Measure AIR-2 to reduce short-term construction period air quality impacts. With implementation of this alternative, potential impacts resulting from construction would be reduced due to the reduction in the overall construction period. Therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.4 Biological Resources

Similar to the proposed project, the Increased Phase Density Alternative would involve construction and operational activities on the project site. Although this alternative would focus development of residential developments on the northern and portions of the project site, construction of the proposed project would still result in ground-disturbing activities that could impact special-status species, federally protected wetlands and nesting birds. This alternative would implement Mitigation Measures BIO-1 through BIO-4 and Regulatory Compliance Measure BIO-1 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to biological resources would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.5 Cultural Resources

Similar to the proposed project, the Reduced Project Alternative would involve construction and operational activities on the project site. Although this alternative would focus development of residential developments on the northern and portions of the project site, construction of the proposed project would still result in ground-disturbing activities that could impact previously unknown archaeological resources and human remains. This alternative would implement Mitigation Measures CUL-1 and CUL-2 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to cultural resources would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.6 Energy

Similar to the proposed project, this alternative would involve construction and operational activities on the project site that would result in the same number of residential units. This alternative would result in a reduced construction duration due to increased density on the northern and southern portions of the project site, resulting in lower construction energy impacts. However, as this alternative would introduce the same number of residential units and mobile sources (e.g., cars, trucks, and buses) to the project site as the proposed project, operational energy impacts under this alternative would be similar to the proposed project. As a result, this project would result in less energy consumption and fewer impacts when compared to the proposed project.

5.6.1.7 Geology and Soils

Similar to the proposed project, the Increased Phase Density Alternative would involve construction and operational activities on the project site. Although this alternative would focus development of residential units on the northern and portions of the project site, construction of the proposed project would still result in ground-disturbing activities that could impact previously unknown unique paleontological resources or unique geologic features. This alternative would implement Mitigation Measure GEO-1 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to geology and soils would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.8 Greenhouse Gas Emissions

Similar to the proposed project, the Increased Phase Density Alternative would involve construction and operational activities on the project site. The higher density of development proposed in this alternative would result in reduced operational GHG emissions. However, the Increased Phase Density Alternative would still require consistency with the 2022 Scoping Plan, which requires the project to implement design features to meet State GHG reduction and equity prioritization goals. As such, this alternative would still require implementation of Mitigation Measure GHG-1 to ensure consistency with the 2022 Scoping Plan and result in a less than significant impact with mitigation. All other GHG impacts would be fewer compared to those of the proposed project and would be less than significant.

5.6.1.9 Hazards and Hazardous Materials

Similar to the proposed project, this alternative would include changes in land use that could result in the accidental release of, or exposure to, hazardous materials would remain the same. Because the number of residential units would be the same as the proposed project, potential impacts related to the use of solvents or fuels related to maintenance of operations would also occur. Therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.10 Hydrology and Water Quality

Under this alternative, the existing pervious surfaces and agricultural land would be altered with construction of residential units. Similar to the proposed project, the existing drainage patterns of the project site would be altered over the entire project site. In addition, this alternative would

affect water quality standards and waste discharge requirements and degrade surface or ground water quality. These impacts would be similar to the proposed project given disturbance of the project site. As a result, this alternative would result in similar impacts related to hydrology and water quality when compared to the proposed project.

5.6.1.11 Land Use and Planning

Under this alternative, the land uses within project site would change to residential uses. However, similar to the proposed project this alterative would not divide an existing community or conflict with an existing land use plan. As a result, this alternative would result in similar less than significant impacts when compared to the proposed project.

5.6.1.12 Mineral Resources

There are no mineral resources located within the project site, and no mineral resources would be adversely affected under this alternative or the proposed project. As a result, this alternative would similarly result in no impacts to mineral resources.

5.6.1.13 Noise

Construction activities under the Increased Phase Density Alternative would involve the use of generally the same types of construction equipment and vehicles as the proposed project, and construction activities would occur at the same distances from the nearest receptors as under the proposed project. Although, the daily construction noise levels generated under this alternative would be comparable to that generated by the construction of the proposed project, this alternative would result in shorter overall construction period, which would reduce the duration of noise-generating construction. Although Mitigation Measure NOI-1.1 would be required, construction would not require as much time to be completed. The Increased Phase Density Alternative would have similar levels of project-generated traffic compared to the proposed project but concentrated in smaller areas. As such, implementation of Mitigation Measure NOI-1.2 would still be required to ensure the project complies with the City's interior noise standard of 45 dBA CNEL. In addition, as with the proposed project, construction and operational vibration impacts would be less than significant under this alternative. With implementation of this alternative, potential noise impacts would be fewer when compared to the proposed project.

5.6.1.14 Population and Housing

Under this alternative population and housing would increase over the existing conditions of the project site, and would result in the same number of residential units as the proposed project. The proposed project would result in less-than-significant impacts to population and displacement of existing residents. As a result, this alternative would result in similar impacts related to population and housing when compared to the proposed project.

5.6.1.15 Public Services

Under this alternative, the population of the project site would be similar to the proposed project. The proposed project would result in less-than-significant impacts resulting from increased demand for public services, including fire protection, police protection, public schools, parks and recreational

facilities. When compared to the proposed project, this alternative would result in similar impacts less-than-significant impacts to population and housing.

5.6.1.16 Recreation

When compared to the proposed project, this alternative would result in the same number of residential units and comparable population increase. As a result, demand for recreational facilities and open space would increase over existing conditions and would be similar to the proposed project. As a result, when compared to the proposed project, this alternative would result in similar impacts related to construction and/or expansion of the recreational facilities.

5.6.1.17 Transportation

Under the Increased Phase Density Alternative, portions of the project site would be developed at a higher residential density than what was proposed in the proposed project, but the same number of residential units would be constructed. The proposed project would increase traffic levels in the nearby circulation system, which could potentially create and contribute to unsatisfactory LOS conditions in roadways in the City. Therefore, with implementation of the Increased Phase Density Alternative, **the significant and unavoidable LOS impact that would result from the proposed project could still occur**. In addition, when compared to the proposed project, this alternative would result in similar VMT significant and unavoidable impacts given the proposed land uses and location relative to other land uses. Impacts related to incompatible uses, geometric design features and emergency access would be less than significant similar to the proposed project. Therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.18 Tribal Cultural Resources

Similar to the proposed project, the Increased Phase Density Alternative would involve construction and operational activities on the project site. Although this alternative would focus development of residential units on the northern and southern portions of the project site, construction of the proposed project would still result in ground-disturbing activities that could impact previously unknown tribal cultural resources. This alternative would implement Mitigation Measures CUL-1 and CUL-2 to reduce potential impacts to less-than-significant levels. With implementation of this alternative, potential impacts to tribal cultural resources would occur and, therefore, this alternative would result in similar impacts when compared to the proposed project.

5.6.1.19 Utilities and Service Systems

Under this alternative, the land uses and physical changes would occur within the project site would be similar to the proposed project, and would increase the demand for utilities and service systems. As a result, demand related to water supply, wastewater, stormwater, and electricity, natural gas, and telecommunications, would be similar to the proposed project. As a result, this alternative would result in similar impacts to utilities and service systems when compared to the proposed project.

5.6.1.20 Wildfire

The project site is in an area mapped by CAL FIRE as Local Responsibility Area (LRA) Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not within a very high fire hazard severity zone (VHFHSZ). Similar to the proposed project, this alternative would not exacerbate wildfire risks. Because this alternative would result in physical changes that would be similar to the proposed project, this alternative would result in similar impacts.

5.6.2 Comparison to Project Objectives

As discussed above, the Increased Phase Density Alternative would build 590 single-family residential units in a smaller area within the project site than what is proposed in the proposed project, increasing residential density in the site. The Increased Phase Density Alternative would accommodate future housing demands in Clovis by providing visually attractive single-family residences; partially provide for local and regional housing demand by establishing a single housing type, size, and density to accommodate higher residential density on the project site. Additionally, this alternative implements the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provides integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. Because this alternative would provide the same number of units, but would minimize mixture of housing types included in the proposed project, this alternative would partially meet the objectives of the project.

5.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Based on the alternatives analysis, of the alternatives analyzed, the No Project Alternative would have the fewest impacts and would be the environmentally superior alternative. Under CEQA, if the No Project Alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives (*State CEQA Guidelines* Section 15126.6(e)(2)). Table 5.A provides, in summary format, a comparison of the level of impacts for each alternative to the proposed project.

The Reduced Project Alternative would have less than significant impacts in most resource topics that would be comparable to the proposed project. The alternative would have potentially reduced construction-phase air quality, and reduced operational-phase air quality, noise, GHG impacts, and transportation due to reduced development on the project site. Therefore, the Reduced Project Alternative is considered the environmentally superior alternative.

Table 5.A: Comparison of the Environmental Impacts of the Proposed Project to the Project Alternatives

Environmental Topic	Proposed Project Level of Impact After Mitigation	Alternative 1: No Project Alternative	Alternative 2: Reduced Project Alternative	Alternative 3: Increased Phase Density Alternative
Aesthetics	Less than Significant	Fewer	Similar	Similar
Agricultural Resources	Less than Significant	Fewer	Similar	Similar
Air Quality	Less than Significant	Fewer	Fewer	Similar
Biological Resources	Less than Significant	Fewer	Similar	Similar
Cultural Resources	Less than Significant	Fewer	Similar	Similar
Energy	Less than Significant	Fewer	Fewer	Fewer
Geology and Soils	Less than Significant	Fewer	Similar	Similar
Greenhouse Gas Emissions	Less than Significant	Fewer	Fewer	Fewer
Hazards and Hazardous Materials	Less than Significant	Fewer	Similar	Similar
Hydrology and Water Quality	Less than Significant	Fewer	Similar	Similar
Land Use and Planning	Less than Significant	Similar	Similar	Similar
Mineral Resources	Less than Significant	Similar	Similar	Similar
Noise	Less than Significant	Fewer	Fewer	Fewer
Population and Housing	Less than Significant	Fewer	Similar	Similar
Public Services	Less than Significant	Fewer	Fewer	Similar
Recreation	Less than Significant	Fewer	Fewer	Similar
Transportation	Significant Unavoidable	Fewer	Fewer, Significant Unavoidable	Similar, Significant Unavoidable
Tribal Cultural Resources	Less than Significant	Fewer	Similar	Similar
Utilities and Service Systems	Less than Significant	Fewer	Fewer	Similar
Wildfire	Less than Significant	Fewer	Similar	Similar
Attainment of Project Objectives	Meets all of the Project Objectives	Meets none of the Project Objectives	Partially Meets the Project Objectives	Partially Meets the Project Objectives

Source: Compiled by LSA (May 2023).
Fewer = Fewer impacts than the proposed project
Similar = Similar impacts to the proposed project

6.0 CEQA-REQUIRED ASSESSMENT CONCLUSIONS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. This chapter provides an overview of the potential impacts resulting from the implementation of the proposed project based on the analyses presented in the Initial Study prepared for the proposed project, and Chapter 4.0, Evaluation of Environmental Impacts, of this EIR. The topics covered in this chapter include impacts found not to be significant, growth inducement, significant and unavoidable impacts, and significant irreversible changes. A more detailed analysis of the effects the proposed project would have on the environment and proposed mitigation measures to minimize significant impacts are provided in Sections 4.1 through 4.5 of this EIR.

6.1 GROWTH INDUCEMENT

Section 15126.2(d) of the *State CEQA Guidelines* requires that an EIR discuss the ways in which a proposed project or the construction of additional housing, either directly or indirectly, could foster economic or population growth in the surrounding environment. Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are only sparsely developed or are underdeveloped. Typically, development projects on sites that are designated for development and surrounded by existing suburban uses are not considered adversely growth-inducing because growth in areas that already have development and infrastructure available to serve new development are generally considered environmentally beneficial. This section evaluates the potential of the proposed project to create such growth inducements. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the growth associated with the proposed project would cause adverse environmental impacts.

As described in Section 3.14, Population and Housing, of the Initial Study prepared for this EIR, implementation of the proposed project would not exceed the City's projections for population growth in the project site, as the project site is located within the Heritage Grove Area, a planned growth area identified in the General Plan. As such, additional housing units and population resulting from implementation of the proposed project have been anticipated by the City and do not exceed projections of the City. Additionally, employment growth resulting from the proposed project would occur only temporarily due to construction activities. Therefore, the proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly, and this impact would be considered less than significant.

As discussed in Section 3.15, Public Services, and Section 3.19, Utilities and Service Systems, of the Initial Study, the project site would be served by the City's public service or utility providers, including police protection services, fire prevention services, water, wastewater, telecommunications, electricity, and natural gas. The proposed project includes physical improvements to accommodate growth which would create an increased demand for public services and utilities within the project site. As the project site is currently not annexed to the City, the

Project Applicant would be required to complete the annexation process with the Fresno County Local Agency Formation Commission and the City, and pay required processing fees for the annexation process. Once the project site is annexed into the City, to address impacts to public services and utilities, the Project Applicant would be required to pay applicable impact fees in effect at the time the development application for the proposed project is submitted. City staff would review the site plan for the project to ensure the adequate provision of public services and utilities. As the project site is located within the Heritage Grove Area, a planned growth area identified in the General Plan, and installation of infrastructure and provision of services would accommodate planned growth in the project site, the provision of services and construction of utilities' infrastructure for the proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly, and this impact would be less than significant.

Development of the proposed project would involve construction activities that could generate some temporary employment opportunities. However, given the temporary nature of such opportunities, it is unlikely that construction workers would need to relocate to the City a as a result of the proposed project. Thus, the proposed project would not be considered growth-inducing from an employment perspective.

6.2 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(d) of the *State CEQA Guidelines* requires an EIR to discuss the extent to which the proposed project would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.

6.2.1 Changes in Land Use Which Commit Future Generations

The proposed project would involve the development of land in the project site currently used for agricultural production. Although the proposed development would commit future generations to using the project site for developed uses rather than agricultural purposes, such a commitment is consistent with planned residential uses for the project site, as identified in the City's General Plan. The General Plan has anticipated development in the project site that commits future generations, which was assessed under the General Plan EIR; the proposed project merely implements and carries out the vision of the General Plan.

6.2.2 Irreversible Damage from Environmental Accidents

Demolition and construction activities associated with implementation of the proposed project would involve some risk for environmental accidents. However, as discussed in Section 3.9, Hazards and Hazardous Materials, of the Initial Study, accidental spills and soil contamination would be addressed by City, State, and federal agencies, and would follow professional industry standards for safety and construction. Although there is a possibility for contaminated soil to be encountered during grading, excavation, and/or ground disturbance associated with implementation of the proposed project, it is likely that such contamination may have resulted from agricultural operations within the project site. However, the risks of accidental contamination from handling construction materials or transport of these materials off site would be reduced to a less-than-significant level through compliance with the many federal, State, and local regulations regarding the handling and

disposal of such construction materials. Additionally, the residential land use proposed by the proposed project would not include any uses or activities that are likely to contribute to or be the cause of a significant environmental accident, such as industrial-related spills or leaks. As a result, the proposed project would not pose a substantial risk of environmental accidents.

6.2.3 Consumption of Non-Renewable Resources

Consumption of non-renewable resources includes issues related to increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. The proposed project would require water, and electricity service, as well as additional resources for construction. Construction and ongoing maintenance would irreversibly commit some materials and non-renewable energy resources. Materials and resources used during implementation of the proposed project would include, but are not limited to, non-renewable and limited resources such as oil, gasoline, sand, gravel, asphalt, and steel. These materials and energy resources would be used for infrastructure development, transportation of people and goods, and utilities. During the operational phase of the proposed project, energy sources including oil and gasoline would be used for lighting, heating, and cooling of residences, as well as transportation of people to and from the project site.

As discussed in Section 3.6, Energy, of the Initial Study, the projected electricity demands of the proposed project would be consistent with typical usage rates for residential uses in the City of Clovis, and would not result in a significant adverse impact related to the provision of electricity. In addition, the proposed project would comply with Title 24 of the California Code of Regulations (CCR) that requires conservation practices that would limit the amount of energy (California Energy Code Building Energy Efficiency Standards [Title 24, Part 6]) consumed through implementation of the proposed project. With the development of more cost-effective and accessible technologies, pursuant to the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608), dependence on non-renewable resources used in association with future development envisioned under the proposed project may also be reduced. Furthermore, the proposed project would be required to undergo project-specific analysis (as required by CEQA) and comply with all California Green Building Standards Code (CALGreen Code) building efficiency standards (Title 24, Part 11) and mandatory residential building requirements in the California Energy Code Building Energy Efficiency Standards (Title 24, Part 6) (as required by State law). Additionally, resources that would be used during the operation of the proposed project would be similar to those currently consumed within the City. Nevertheless, the use of such resources would continue to represent a long-term commitment of essentially non-renewable or slowly renewable resources.

Implementation of the proposed project would also result in an increased demand for potable water and generation of wastewater. As discussed in Section 3.10, Hydrology and Water Quality, and Section 3.19 Utilities and Service Systems, the project is consistent with growth under the City's General Plan and covered under the City's 2020 Urban Water Management Plan Update. The proposed project would have sufficient water supplies available to meet future demand during normal, dry and multiple dry years. The adequacy of the water supply for the project is thus consistent with the basis of the analysis of the City's water supply in the adopted 2020 Urban Water Management Plan Update.

Although the construction and ongoing operation of the proposed project would involve the use of non-renewable resources, through the inclusion of energy-conserving features of the proposed project, and compliance with applicable standards and regulations, the proposed project would not represent an unjustified use of such non-renewable resources.

6.3 SIGNIFICANT UNAVOIDABLE IMPACTS

The environmental effects of the proposed project, along with recommended mitigation measures, are discussed in detail in Section 4.0, Evaluation of Environmental Impacts, and summarized in the Executive Summary. The following environmental issues were determined to result in less-than-significant impacts, or can be reduced to less-than-significant levels with the incorporation of mitigation measures:

- Aesthetics
- Agricultural Resources (mitigation required)
- Air Quality
- Biological Resources (mitigation required)
- Cultural Resources (mitigation required)
- Energy
- Geology and Soils (mitigation required)
- Greenhouse Gas Emissions (mitigation required)
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise (mitigation required)
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources (mitigation required)
- Utilities and Service Systems
- Wildfire

Section 15126.2(c) of the *State CEQA Guidelines* requires that an EIR describe any significant impacts, including those that can be mitigated but not reduced to less than significant levels, as a result of implementation of the project. The following environmental issues were determined to result in potential significant and unavoidable impacts, even after implementation of feasible mitigation.

- Transportation – potentially exceed thresholds of levels of service on roadways in conflict with approved General Plan and increase in VMT.

7.0 REPORT PREPARATION

7.1 REPORT PREPARERS

7.1.1 City of Clovis

1033 Fifth Street
Clovis, California 93612

Lily Cha-Haydostian, MPA, AICP, Senior Planner
Sean K. Smith PE QSD, Supervising Civil Engineer

7.1.2 LSA Associates Inc.

Project Management and Report Production, Air Quality/Greenhouse Gas Emissions, Noise

2565 Alluvial Avenue, Suite 172
Clovis, California 93611

Amy Fischer, President, Principal in Charge
Kyle Simpson, Principal/Project Manager
Cara Carlucci, Associate
Nathaly Granda Bustamante, Environmental Planner
Patty Linder, Graphics/Document Production

Transportation

1500 Iowa Avenue, Suite 200
Riverside, California 92507

Ambarish Mukherjee, AICP, PE, Principal
Ravi Palakurthy, Senior Transportation Planner/Engineer
Debmalya Sinha, Senior Transportation Planner
Kimberly Cervantes, Assistant Transportation Planner/Engineer

Agricultural Resources

286 South Street, Suite P
San Luis Obispo, California 93401

Pam Reading, Principal
Ashley Honer, Environmental Planner

7.1.3 Argonaut Ecological Consulting, Inc.

Biological Resources

2377 Gold Meadow Way, Suite 100
Gold River, California 95670

Kathy R. Kinsland, Senior Scientist

7.1.4 Peak & Associates, Inc.

Cultural Resources

3941 Park Drive, Suite 20 #329
El Dorado Hills, California 95762

Melinda A. Peak, Senior Scientist

8.0 REFERENCES

California Air Pollution Control Officers Association's (CAPCOA). 2021. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers. December.

California Air Resources Board (CARB). 2000a. *Fact Sheet – California's Plan to Reduce Diesel Particulate Matter Emissions*. October. Website: www.arb.ca.gov/diesel/fact sheets/ rrpfactsheet.pdf (accessed September 2022).

_____. 2000b. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website: www.arb.ca.gov/diesel/documents/rrpFinal.pdf (accessed September 2022).

_____. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

_____. 2007a. "ARB approves tripling of early action measures required under AB 32" News Release 07-46. October 25.

_____. 2007b. Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration. October.

_____. 2014. Cap-and-Trade Program. Website: www.arb.ca.gov/cc/capandtrade/capandtrade.htm (accessed September 2022).

_____. 2016. Federal and State Ambient Air Quality Standards.

_____. 2017a. California's 2017 Climate Change Scoping Plan. November.

_____. 2017b. Second Update to the Climate Change Scoping Plan: Building on the Framework. Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed February 2023).

_____. 2017c. Short-Lived Climate Pollutant Reduction Strategy. March. Website: https://ww2.arb. ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf (accessed September 2022).

_____. 2018. Sources and Health Effects of Air Pollutants.

_____. 2020. Inhalable Particulate Matter and Health (PM2.5 and PM10). Website: ww2.arb.ca.gov/ resources/inhalable-particulate-matter-and-health (accessed September 2022).

_____. 2022a. 2022 Scoping Plan. November 16. Website: https://ww2.arb.ca.gov/sites/default/ files/2022-12/2022-sp.pdf (accessed January 2023).

_____. 2022b. 2022 Scoping Plan Appendix D Local Actions. November. Website: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf (accessed February 2023).

_____. 2022c. California Greenhouse Gas Emissions for 2000 to 2020, Trends of Emissions and Other Indicators Report. Website: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf (accessed January 2023).

_____. 2022d. GHGs Descriptions & Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed January 2023).

_____. 2023. San Joaquin Valley Air Basin Air Quality Attainment Status.

California Air Resources Board (CARB) 2022 and United States Environmental Protection Agency (USEPA) 2022. Ambient Air Quality at Nearby Monitoring Stations.

California Coastal Commission (CCC). Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone. Website: http://www.coastal.ca.gov/wetrev/wetch4.html (accessed September 2022).

California Department of Conservation (DOC). 2016. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed April 2023).

_____. 2018. Farmland Mapping and Monitoring Program, 2018 Fresno County. Website: https://gis.conservation.ca.gov/portal/home/group.html?id= b1494c705cb34d01acf78f4927a75b8f#overview (accessed April 2023).

California Department of Transportation (Caltrans). 2002. Guide for the Preparation of Traffic Impact Studies. December.

_____. 2020. Highway Design Manual – Seventh Edition. July 1. Website: https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm (February 2023).

California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

California Government Code of the State of California, Sections 51201, 51231, 51238 and 51238.1.

City of Clovis. 2014. General Plan. August. General Plan and Development Code Update Preliminary Final Environmental Impact Report. Website: https://cityofclovis. com/wp-content/uploads/2018/10/Preliminary-Final-Environmental-Impact-Report-August-2014.pdf (accessed April 2023).

_____. 2016. Fresno Multi-Jurisdictional 2015-2023 Housing Element. April. Website: https://cityofclovis.com/wp-content/uploads/2019/02/Clovis-Housing-Element-1.pdf (accessed September 21, 2022).

_____. 2021a. Clovis Municipal Code.

_____. 2021b. Urban Water Management Plan 2020 Update. July. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed April 2023).

Climate Change Science Program (CCSP) 4.1. 2009. January 15, 2009, 1 of 784 Final Report, United States CCSP, Synthesis and Assessment Product 4.1. Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region. Lead Agency: U.S. Environmental Protection Agency, Other Key Participating Agencies: U.S. Geological Survey, National Oceanic and Atmospheric Administration. Contributing Agencies: Department of Transportation.

County of Fresno. 2013. Board Briefing Report, *Status Report Regarding Administration of the Williamson Act Program*, Alan Weaver, Director Department of Public Works and Planning, February 21, 2013.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual. Office of Planning and Environment*. Report No. 0123. September.

Fresno Metropolitan Flood Control District. 2019. Storm Drainage and Flood Control Master Plan. Website: https://www.fresnofloodcontrol.org/wp-content/uploads/2021/03/exhibit-A-11x17-1.pdf (accessed April 19, 2022).

Harris, Cyril, ed. 1998. *Handbook of Acoustical Measurements and Noise Control.*

Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February.

Klingebiel, A.A. (Albert Arnold), and P.H. (Paul Hooper) Montgomery. 1961. Land-Capability Classification. *Agricultural Handbook No. 210*. Soil Conservation Service, U.S. Department of Agriculture. Website: https://naldc.nal.usda.gov/catalog/CAT10310193 (accessed May 2023).

Krazan & Associates, Inc. 2022. *Geotechnical Engineering Investigation Proposed Tract No. 6343 Behymer Avenue, Clovis, California.* June 29.

LSA Associates, Inc. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February.

_____. 2023a. Land Evaluation and Site Assessment Model (LESA Model) for the Tract Map (TM) 6343 Project. August 22.

_____. 2023b. Transportation Impact Analysis Tract Map 6343 Project, Clovis, Fresno County, California. August.

North Kings Groundwater Sustainability Agency. 2019. Groundwater Sustainability Plan. November 21.

Propper, Ralph, Patrick Wong, Son Bui, Jeff Austin, William Vance, Álvaro Alvarado, Bart Croes, and Dongmin Luo. 2015. Ambient and Emission Trends of Toxic Air Contaminants in California. *American Chemical Society: Environmental Science & Technology*. Website: pubs.acs.org/doi/full/10.1021/acs.est.5b02766 (accessed January 2023).

Provost & Pritchard. 2022. Memorandum – Water Infrastructure Investigation for Tentative Tract Map 6343. December 19.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2007. *2007 PM_{10} Maintenance Plan and Request for Redesignation*. Website: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf (accessed September 2022).

_____. 2015a. Guidance for Assessing and Mitigating Air Quality Impacts. March 19, 2015. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF (accessed January 2023).

_____. 2015b. Screening Levels for Potential Odor Sources

_____. 2018. *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards*. November 15. Website: http://valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf (accessed September 2022).

_____. 2022. *2022 Plan for the 2015 8-Hour Ozone Standard*. December 15. Website: https://ww2.valleyair.org/media/q55posm0/0000-2022-plan-for-the-2015-8-hour-ozone-standard.pdf (accessed February 2023).

Storie, R. 1932. *An index for rating the agricultural values of soils*. Bulletin 556. Berkeley: California Agricultural Experiment Station.

_____. 1978. Storie index soil rating. Oakland: University of California Division of Agricultural Sciences Special Publication 3203.

Trane. 2002. *Sound Data and Application Guide for the New and Quieter Air-Cooled Series R Chiller*.

United Nations Framework Convention on Climate Change (UNFCCC). 2021. GHG Data from UNFCCC. Website: unfccc.int/process-and-meetings/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc/ghg-data-from-unfccc (accessed June 2022).

United States Department of Agriculture (USDA). 1961. Soil Conservation Service. Land Capability Classifications and Land Capability Subclass Units.

_____. 2020. Natural Resources Conservation Service. Title 430 – National Soil Survey Handbook. Part 622 – Interpretive Groups, 622.2 – Land Capability Classification. Pgs. 622.A.2 – 622.A.3. June. Website: https://directives.sc.egov.usda.gov/OpenNonWeb Content.aspx?content=48824.wba (accessed April 2023).

_____. 2021. National Agriculture Statistics Service (NASS). CropScape-Cropland Data Layer. Website: https://nassgeodata.gmu.edu/CropScape/ (accessed May 26, 2022).

_____. n.d. Soil Survey Staff, Natural Resources Conservation Service. Soil Survey Geographic (SSURGO) Database. Website: https://sdmdataaccess.sc.egov.usda. gov (accessed April 2023).

United States Department of the Interior. 2007. Environmental Water Account Draft Supplemental EIS/EIR to the Environmental Water Account Final EIS/EIR, Bureau of Reclamation Mid-Pacific Region, Sacramento, California. October.

United States Environmental Protection Agency (USEPA). 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*.

_____. 1978. *Protective Noise Levels, Condensed Version of EPA Levels Document*. November.

_____. 2016. Climate Impacts on Human Health. Website: 19january2017snapshot.epa.gov/climate-impacts/climate-impacts-human-health.html (accessed March 7, 2022).

_____. 2017. Black Carbon, Basic Information. February 14, 2017. Website: 19january2017 snapshot.epa.gov/www3/airquality/blackcarbon/basic.html (accessed September 2022).

_____. 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019. Website: https:// www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019 (accessed September 2022).

Western Regional Climate Center. n.d. Fresno Yosemite International Airport (043257), Period of Record Monthly Climate Summary. Website: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3257 (accessed January 2023).

This page intentionally left blank

APPENDIX A

NOTICE OF PREPARATION AND INITIAL STUDY

This page intentionally left blank

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE TRACT MAP 6343 PROJECT

Date: December 19, 2022

To: Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

Subject: Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project

Lead Agency: City of Clovis

Project Title: Tract Map 6343

Project Applicant: Wilson Premier Homes, Inc

Contact: Lily Cha, Senior Planner
Planning Division
1033 Fifth Street
Clovis, CA 93612
(559) 324-2335
lilyc@cityofclovis.com

Comment Period: December 19, 2022 to January 17, 2023

PURPOSE OF NOTICE

The City of Clovis (City) is the lead agency responsible for preparation of an Environmental Impact Report (EIR) for the Tract Map 6343 Project (proposed project). Pursuant to provisions of the California Environmental Quality Act (CEQA), the City has prepared this Notice of Preparation (NOP) for the proposed project. Once a decision is made to prepare an EIR, the lead agency must prepare a NOP to inform all responsible and trustee agencies that an EIR will be prepared (CEQA Guidelines Section 15082). The purpose of this NOP is to provide agencies, interested parties, and organizations with sufficient information describing the proposed project and its potential environmental effects to enable meaningful input related to the scope and content of information to be included in the EIR.

PUBLIC REVIEW PERIOD

As required by Section 15082 of the CEQA Guidelines, this NOP has been prepared and distributed to solicit comments from interested parties and potential responsible and trustee agencies and other public agencies so that project-related concerns relevant to each agency's statutory responsibilities in connection with the proposed project can be addressed in the EIR, as well as any related issues from interested parties other than potential responsible and trustee agencies, including other agencies and affected members of the public. The EIR will be the environmental document of reference for Responsible and Trustee Agencies when considering subsequent discretionary approvals.

This NOP is being circulated for public review and comment for a period of 30 days beginning December 19, 2022. The City requests that any potential responsible or trustee agencies responding to this NOP reply in a manner consistent with Section 15082(b) of the CEQA Guidelines, which requires submittal of any comments in response to this notice no later than 30 days after receipt of the NOP. Comments in response to this NOP will be accepted through 5:00 p.m., January 17, 2023.

Please send your written comments to Ms. Cha and include your name, address, phone number, and/or email address so that we may contact you for clarification, if necessary.

Copies of the Notice of Preparation may be reviewed at the following locations:

- Clovis Regional Library, 1155 5th Street, Clovis, during library hours;
- City of Clovis, Planning and Development Department, 1033 Fifth Street, Clovis, between 8:00 a.m. and 4:00 p.m.; or
- Online at: https://cityofclovis.com/planning-and-development/planning/ceqa/

PROJECT DESCRIPTION

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots, averaging 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis.

The proposed project would be developed in three phases.

- **Phase 1.** Phase 1 would include the development of 136 single-family residential units with an average size of 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress driveway located on Perrin Avenue. Phase 1 would include the construction of 44 parking spaces, an 8,745 square-foot community pool and recreation area, a 13,930 square-foot community park, 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin

Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

- **Phase 2.** Phase 2 would include the development of 214 single-family residential units with an average size of 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress driveway located along the future southern extension of Baron Avenue, and one driveway along Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

- **Phase 3.** Phase 3 of the proposed project would include the development of 240 single-family residential units with an average size of 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress driveways located along the future southern extension of Baron Avenue, and through one gated driveway located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985 square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue.

In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot long extension of Baron Avenue south of East Behymer Avenue.

ALTERNATIVES TO BE ANALYZED IN THE EIR

In accordance with Section 15126.6 of the CEQA Guidelines, the EIR will assess a range of reasonable alternatives to the proposed project. The range of alternatives to be addressed will include alternatives that are specifically required by CEQA (e.g., the No Project Alternative), as well as other alternatives intended to reduce or eliminate potentially significant impacts, as identified through the coordinated consultation and planning process.

POTENTIAL ENVIRONMENTAL EFFECTS

The EIR will evaluate the potential environmental impacts of the proposed project, after having first established the environmental setting, or baseline, for the environmental analysis. The significance of potential impacts, cumulative impacts, and appropriate mitigation measures associated with the proposed project would be thoroughly discussed in the EIR.

The Initial Study prepared for this EIR evaluated the environmental issue topics required by CEQA. The individual environmental topics evaluated in the Initial Study include the following:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing

- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The Initial Study identified potentially significant environmental issue topics that will be analyzed in more detail in the EIR. The topics include:

- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation

PUBLIC SCOPING MEETING

The City will hold a public scoping meeting to inform interested parties about the proposed project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. The meeting time and location is as follows:

City of Clovis Council Chamber
1033 Fifth Street
Clovis, CA 93612
Date: Thursday, January 12, 2023
Time: 6:00 p.m.

PUBLIC REVIEW DRAFT

TRACT MAP 6343
INITIAL STUDY

CLOVIS, CALIFORNIA

LSA

December 2022

This page intentionally left blank

PUBLIC REVIEW DRAFT

TRACT MAP 6343
INITIAL STUDY

CLOVIS CALIFORNIA

Submitted to:

Lily Cha, Senior Planner
Planning and Development Services
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
2565 Alluvial Avenue, Suite 172
Clovis, California 93611
(559) 490-1210

Project No. CIT2201

LSA

December 2022

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS i
FIGURES AND TABLES ii
LIST OF ABBREVIATIONS AND ACRONYMS iii
1.0 PROJECT INFORMATION 1-1
2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 2-1
2.1 Determination 2-1
3.0 CEQA ENVIRONMENTAL CHECKLIST 3-1
3.1 Aesthetics 3-1
3.2 Agriculture and Forestry Resources 3-5
3.3 Air Quality 3-9
3.4 Biological Resources 3-13
3.5 Cultural Resources 3-20
3.6 Energy 3-24
3.7 Geology and Soils 3-26
3.8 Greenhouse Gas Emissions 3-30
3.9 Hazards and Hazardous Materials 3-32
3.10 Hydrology and Water Quality 3-36
3.11 Land Use and Planning 3-42
3.12 Mineral Resources 3-44
3.13 Noise 3-45
3.14 Population and Housing 3-51
3.15 Public Services 3-53
3.16 Recreation 3-56
3.17 Transportation 3-57
3.18 Tribal Cultural Resources 3-61
3.19 Utilities and Service Systems 3-63
3.20 Wildfire 3-67
4.0 LIST OF PREPARERS 4-1
5.0 REFERENCES 5-1

APPENDICES

A: AB 52 CONSULTATION REQUEST AND RESPONSE LETTERS
B: WATER INFRASTRUCTURE INVESTIGATION
C: WATER SUPPLY ASSESSMENT

FIGURES AND TABLES

FIGURES

Figure 1-1: Regional and Local Context 1-7
Figure 1-2: Aerial Photograph of the Project Site and Surrounding Land Uses 1-9
Figure 1-3: General Site Plan 1-11
Figure 1-4: South: Phase 1 1-13
Figure 1-5: Central: Phase 2 1-15
Figure 1-6: North: Phase 3 1-17

TABLES

Table 3.A: SJVAPCD Construction and Operation Thresholds of Significance (tons/yr) 3-10
Table 3.B: City of Clovis Maximum Exterior Noise Standards 3-47
Table 3.C: City of Clovis Maximum Interior Noise Standards 3-47
Table 3.D: Typical Construction Equipment Noise Levels 3-48

LIST OF ABBREVIATIONS AND ACRONYMS

µg/m^3	micrograms per cubic meter
AB 52	Assembly Bill 52
Active Transportation Plan	2021 Clovis Active Transportation Plan Update
AF	acre-feet
AFY	acre-feet per year
AFY/ac	acre-feet per year per acre
Air Basin	San Joaquin Valley Air Basin
ALUCP	Airport Land Use Compatibility Plan
APN	Assessor Parcel Numbers
BMPs	Best Management Practices
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFD	Clovis Fire Department
CH_4	methane
City	City of Clovis
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPD	Clovis Police Department
CRA	Cultural Resource Assessment
CUSD	Clovis Unified School District
db	decibels
dBA	A-weighted decibels
DTSC	California Department of Toxic Substances Control

EIR	Environmental Impact Report
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FID	Fresno Irrigation District
FMFCD	Fresno Metropolitan Flood Control District
FMMP	Farmland Mapping and Monitoring Program
Fresno LAFCo	Fresno County Local Agency Formation Commission
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
gpm	gallons per minute
GWP	Global Warming Potential
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HP	helipad
HQTA	High-Quality Transit Area
IPaC	Information for Planning and Consultation
L_{dn}	day-night average level
L_{eq}	equivalent continuous sound level
LESA	Land Evaluation and Site Assessment
L_{max}	maximum instantaneous noise level
LOS	level of service
LRA	Local Responsibility Area
MRZ-3	Mineral Resource Zone 3
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PFCs	perfluorocarbons
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size

ppb	parts per billion
PRC	Public Resources Code
RWQCB	Regional Water Quality Control Board
RWRF	Regional Wastewater Reclamation Facility
SB 2	Senate Bill 2
SB 743	Senate Bill 743
SB 1383	Senate Bill 1383
SF_6	sulfur hexafluoride
SHTAC	Swainson's Hawk Technical Advisory Committee
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SOI	Sphere of Influence
SR-168	State Route 168
SWPPP	Stormwater Pollution Prevention Plan
SWQMP	Storm Water Quality Management Program
SWRCB	State Water Resources Control Board
TCRs	Tribal Cultural Resources
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled

This page intentionally left blank

1.0 PROJECT INFORMATION

1. **Project Title:**

   Tract Map 6343

2. **Lead Agency Name and Address:**

   City of Clovis
   1033 Fifth Street
   Clovis, CA 93612

3. **Contact Person and Phone Number:**

   Lily Cha, Senior Planner
   (559) 324-2335
   lilyc@cityofclovis.com

4. **Project Location:**

   Southwest of the intersection of East Behymer Avenue and North Sunnyside Avenue. Assessor Parcel Numbers (APNs): 556-040-07S, 556-040-08S, 556-030-14S

5. **Project Sponsor's Name and Address:**

   Wilson Premier Homes, Inc.
   7550 North Palm Avenue, Suite 102
   Fresno, CA 93711

6. **General Plan Designation:**

   Medium Density Residential

7. **Zoning:**

   Exclusive Agricultural District (AE-20) (Fresno County)

8. **Description of Project:**

   The proposed project would consist of the annexation of 246 acres by the City of Clovis (City), and the development of 590 residential lots in a 71.54-acre project site. Average lot size would be approximately 3,329 square feet. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City. Any future development occurring within the annexation area would require a separate project-specific analysis.

   The project site is located on the southwest quadrant of the intersection between East Behymer Avenue and North Sunnyside Avenue, as shown on Figure 1-1. The project site is located within the City of Clovis' existing Sphere of Influence (SOI) and within the Northwest Urban Center area identified in the 2014 City of Clovis General Plan, now referred to as Heritage Grove. As such, this area is already planned and designated for urban growth and environmentally evaluated at

the programmatic level in the City's General Plan Environmental Impact Report (EIR).[1] The project site is currently being used for agriculture and contains one existing dwelling unit and associated structures. Parcel APN 556-030-14S of the project site is currently under a Williamson Act contract; however, a petition for a contract cancellation is currently in progress. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin (Basin BY), and Tract Map 6200 to the east. Figure 1-2 shows the project site and surrounding land uses.

The proposed project would be developed over a period of approximately 33 months and over three Phases. There would also be 66 outlot spaces included in the proposed residential development. Although the site plan does not provide details on what would be constructed in these spaces, potential uses for the outlots would include private road, private parking, private pedestrian, private landscaping, public utility, and public park uses. The proposed project would include the removal of one existing 2,679-square-foot dwelling unit and garage, an existing propane tank, a 2,000-square-foot pole barn, two sheds of 1,785-square-foot and 2,250-square-foot dimensions, and an existing driveway on the project site. Figure 1-3 shows the site plan for the proposed project.

Phase 1 of the proposed project would include the development of 136 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress driveway located on Perrin Avenue. Phase 1 would include the construction of approximately 44 parking spaces, an approximately 8,745-square-foot community pool and recreation area, a approximately 13,930-square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin Avenue and Hammel Avenue within the project site would be constructed during Phase 1. Figure 1-4 shows a site plan of Phase 1 of the proposed project.

Phase 2 of the proposed project would include the development of 214 single-family residential units with an average size of approximately 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress driveway located along the future southern extension of North Baron Avenue, and one driveway along Hammel Avenue. Phase 2 would include the construction of a 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, and storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue. Figure 1-5 shows a site plan of Phase 2 of the proposed project.

Phase 3 of the proposed project would include the development of 240 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress

[1] City of Clovis. 2014. General Plan and Development Code Update PEIR. Website: https://cityofclovis.com/planning-and-development/planning/master-plans/general-plan/environmental-impact-report/ (accessed December 8, 2022).

and egress driveways located along the future southern extension of North Baron Avenue, and through one gated driveway located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985-square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along North Baron Avenue. Figure 1-6 shows a site plan of Phase 3 of the proposed project.

Water supply for the proposed project would be provided by the City of Clovis. The project would require the construction of a 24-inch water main along Behymer Avenue from Clovis Avenue to Baron Avenue. Additionally, the project would construct a 24-inch main along Baron Avenue, from Behymer Avenue to Perrin Avenue. The proposed improvements would be consistent with the City's Water Master Plan and the City's specifications on materials, depth, and resurfacing.

Wastewater services for the proposed project would be provided by the City of Clovis. The proposed project would connect to an existing wastewater main within the right-of-way of North Baron Avenue.

The FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site and redirected towards FMFCD Basin BY, which is located adjacent to the project site's eastern boundary.

In addition, an approximately 1,300-foot-long, 26-foot-wide drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows west from the project site towards drainage infrastructure along the Enterprise Canal.

Storm drainage pipelines would be constructed along North Baron Avenue and along interior roadways in the project site to drain stormwater from the project site towards Basin BY. These storm drainage facilities would be constructed pursuant to requirements of the FMFCD Master Plan.

Solid waste collection for the project site would be provided by the City of Clovis, and recycling and green waste collection would be provided by Republic Services.

Electricity and natural gas services for the proposed project would be supplied by PG&E through connections to existing service lines. Telecommunication services to the project site would be provided by Comcast and AT&T.

Access to the project site would be provided by East Behymer Avenue and by a southern extension of North Baron Avenue, to be constructed during Phase 1 of the proposed project along the eastern boundary of the project site. The proposed project would construct approximately 2,650 feet of North Baron Avenue south of East Behymer to connect with the existing stretch of North Baron Avenue located southeast of the project site. This portion of North Baron Avenue would be approximately 49 feet wide and have two lanes. An

approximately 20-foot-wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and landscaped areas would be included along the western side of North Baron Avenue along the project site. An approximately 16-foot-wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and landscaped area that is reduced from the Heritage Grove Neighborhood Boulevard Street section would be included along the eastern side of North Baron Avenue, along the FMFCD Basin BY frontage. The eastern side of North Baron Avenue that is north of Basin BY will ultimately be built out with an approximately 20-foot-wide parkway, matching the Heritage Grove Neighborhood Boulevard Street section. However, this section of the parkway will not be constructed with Tract 6343 in order to minimize the impact on the adjacent rural residential property. The pedestrian walk will continue north of Basin BY to East Behymer Avenue with Tract 6343, but will temporarily be constructed to share a combination pedestrian and widened bike lane as approved by the City Engineer with the project design plans.

To access the project site, three gated ingress and egress driveways would be constructed along the southern extension of North Baron Avenue. One gated ingress and egress driveway would also be constructed along Hammel Avenue. A temporary secondary access connecting Hammel Avenue to North Baron Avenue would be constructed along the northern end of Hammel Avenue during Phase 3. One gated ingress and egress driveway and one gated emergency access driveway would be constructed along Perrin Avenue.

Vehicle circulation within the project site would be provided by a network of two-way, 37.2-foot-wide private streets. Internal roadways within the project site would include Hammel Avenue, which is located along the project site's western boundary, and Perrin Avenue, which crosses the project site west to east.

9. Surrounding Land Uses and Setting:

The 71.54-acre project site is located in the City of Clovis' SOI, within the Northwest Urban Center area identified in the City's General Plan that is now referred to as Heritage Grove. The surrounding 246-acre annexation area encompasses the project site. The project site and annexation area include existing residential and agricultural uses. The project site and annexation area are surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

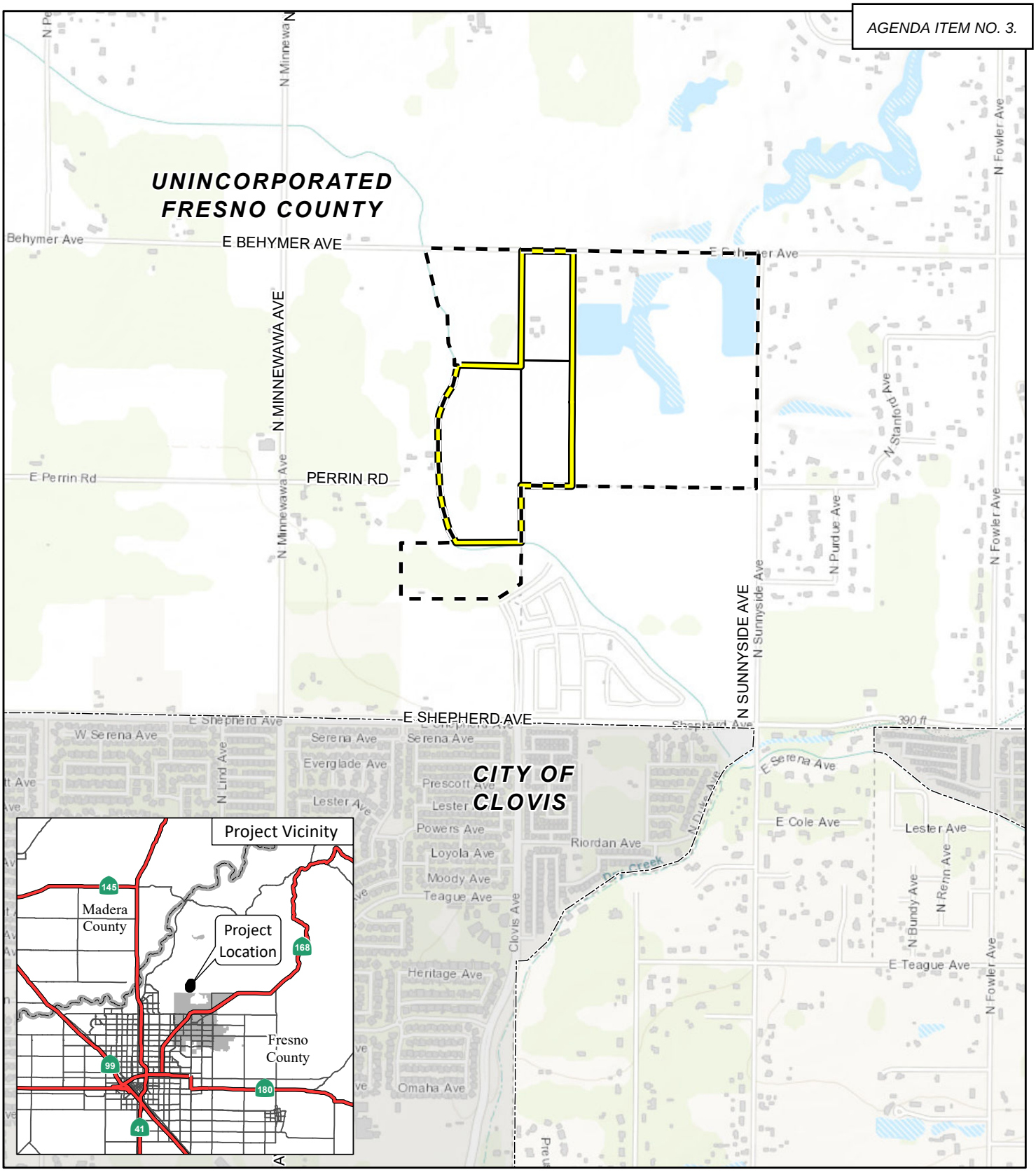
- County of Fresno/City of Clovis – Williamson Act Contract Cancellation
- Fresno Local Agency Formation Commission – Annexation
- State Water Resources Control Board – National Pollutant Discharge Elimination System (NPDES) General Permit (with requisite Storm Water Pollution Prevention Plan, Conceptual Storm Water Pollution Prevention Plan, and Permanent Control Measures)

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In compliance with Assembly Bill 52 (AB 52), on November 4, 2022, the City sent letters regarding the proposed project to Big Sandy Rancheria of Western Mono Indians, Cold Springs Rancheria of Mono Indians, Dumna Wo-Wah Tribal Government, Kings River Choinumni Farm Tribe, North Fork Rancheria of Mono Indians, North Valley Yokuts Tribe, Picayune Rancheria of Chuckchansi Indians, Table Mountain Rancheria, Traditional Choinumni Tribe, Tule River Indian Tribe, and Wuksache Indian Tribe/Eshom Valley Band tribes based on the list of tribes provided by the Native American Heritage Commission (NAHC). Table Mountain Rancheria sent a response to the City on November 15, 2022, requesting the Cultural Resources Assessment[2] prepared for the project, and did not request any further consultation. No further responses or requests for consultation were received by the City within the 30-day consultation period beginning November 4, 2022, and ending December 3, 2022. As such, AB 52 requirements for the proposed project have been fulfilled. AB 52 consultation request and response letters are included in Appendix A of this Initial Study.

[2] Peak & Associates, Inc. 2022. Cultural Resource Assessment for the Tentative Tract Map 6343 and City of Clovis Annexation Area, County of Fresno, California. September 21.

This page intentionally left blank



LSA

LEGEND

- Project Location
- Parcel Boundary
- Annexation Boundary
- Clovis City Limit

0 750 1500
FEET

SOURCE: Esri Streetmap (2021)

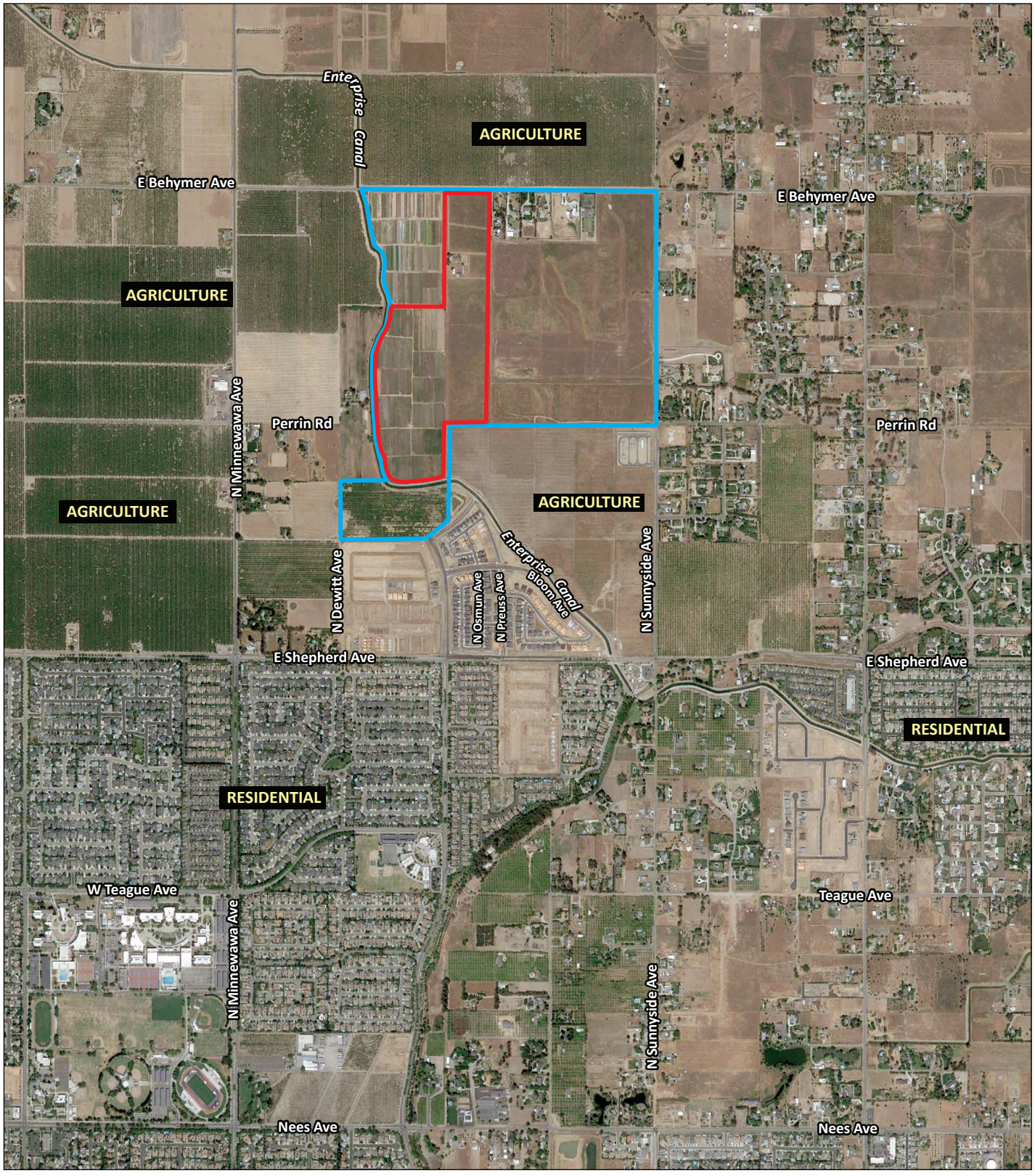
\\lsaazfiles.file.core.windows.net\images\CIT2201\GIS\MXD\Regional_Local_Context.mxd (12/6/2022)

FIGURE 1-1

Tract Map 6343

Regional and Local Context

This page intentionally left blank



LSA

Project Site TM-6343 Boundary

Annexation Boundary

N

0 1000 2000

FEET

FIGURE 1-2

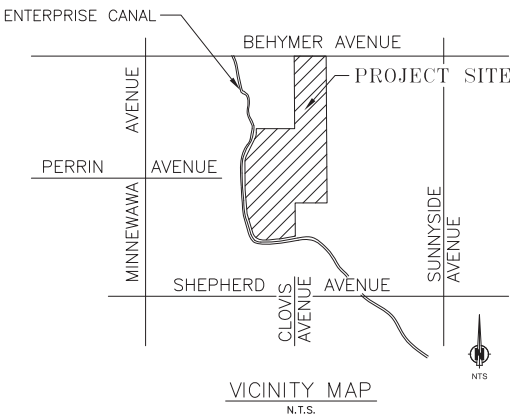
Tract Map 6343

Aerial Photograph of the Project Site and Surrounding Land U

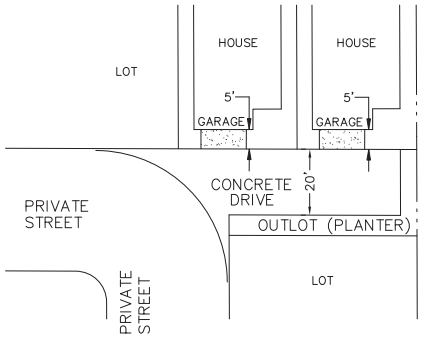
SOURCES: Google Earth 4/21/2021; LSA, 2022

I:\CIT2201\G\Aerial Photo of Site&Surrounding LU.ai (12/6/2022)

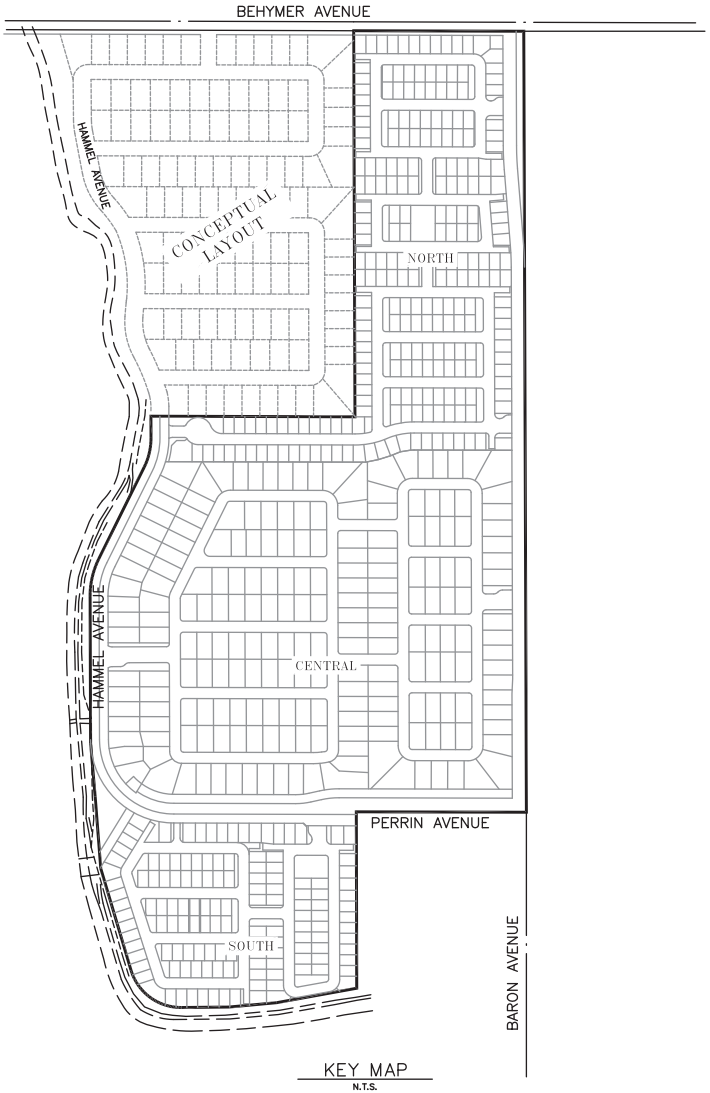
This page intentionally left blank



VICINITY MAP
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.



KEY MAP
N.T.S.

LSA

FIGURE 1-3

N

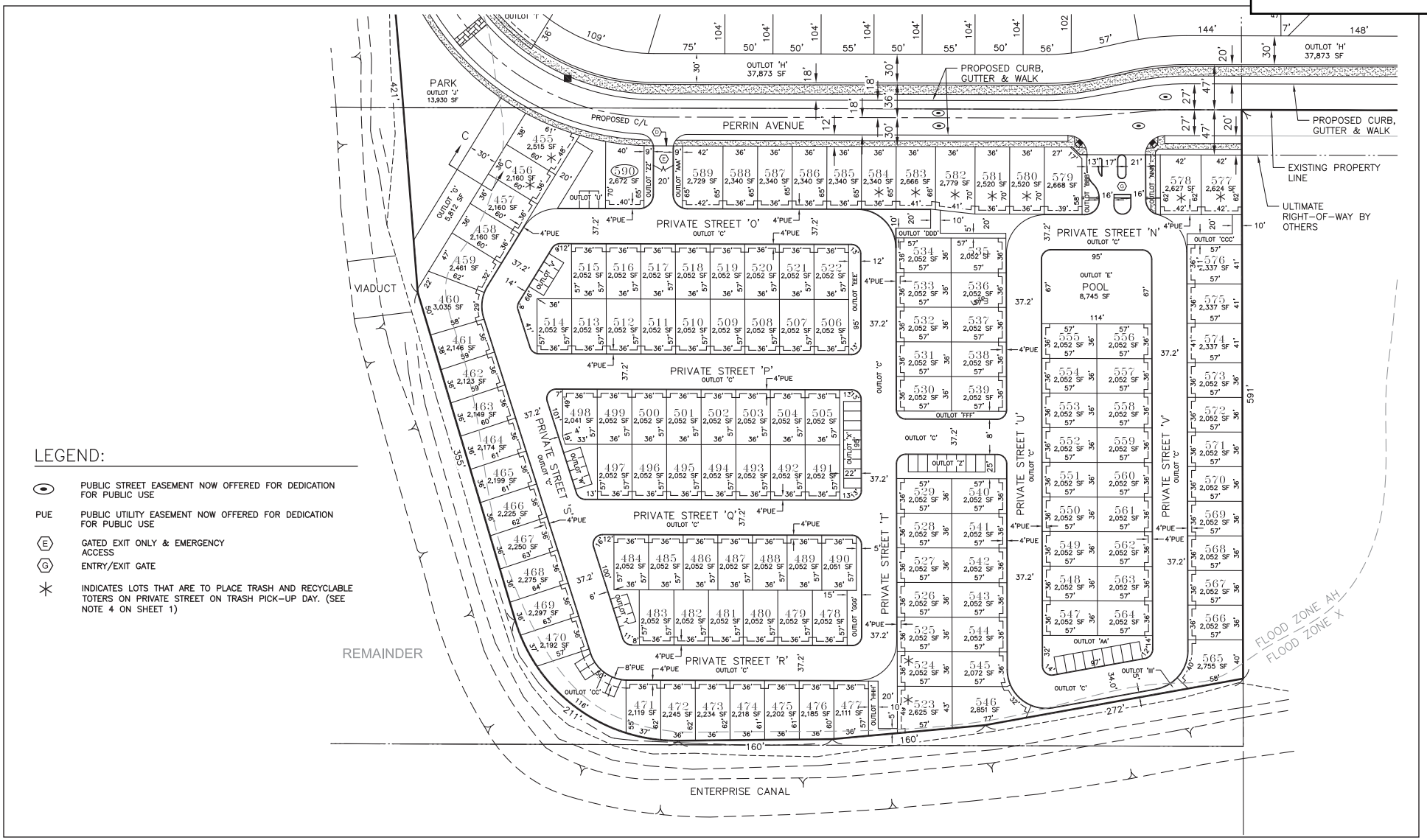
NOT TO SCALE

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\General Site Plan.ai (9/22/2022)

Tract Map 6343
General Site P

This page intentionally left blank



LEGEND:

- PUBLIC STREET EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- PUE — PUBLIC UTILITY EASEMENT NOW OFFERED FOR DEDICATION FOR PUBLIC USE
- (E) — GATED EXIT ONLY & EMERGENCY ACCESS
- (G) — ENTRY/EXIT GATE
- ✳ — INDICATES LOTS THAT ARE TO PLACE TRASH AND RECYCLABLE TOTERS ON PRIVATE STREET ON TRASH PICK-UP DAY. (SEE NOTE 4 ON SHEET 1)

LSA

FIGURE 1-4

N

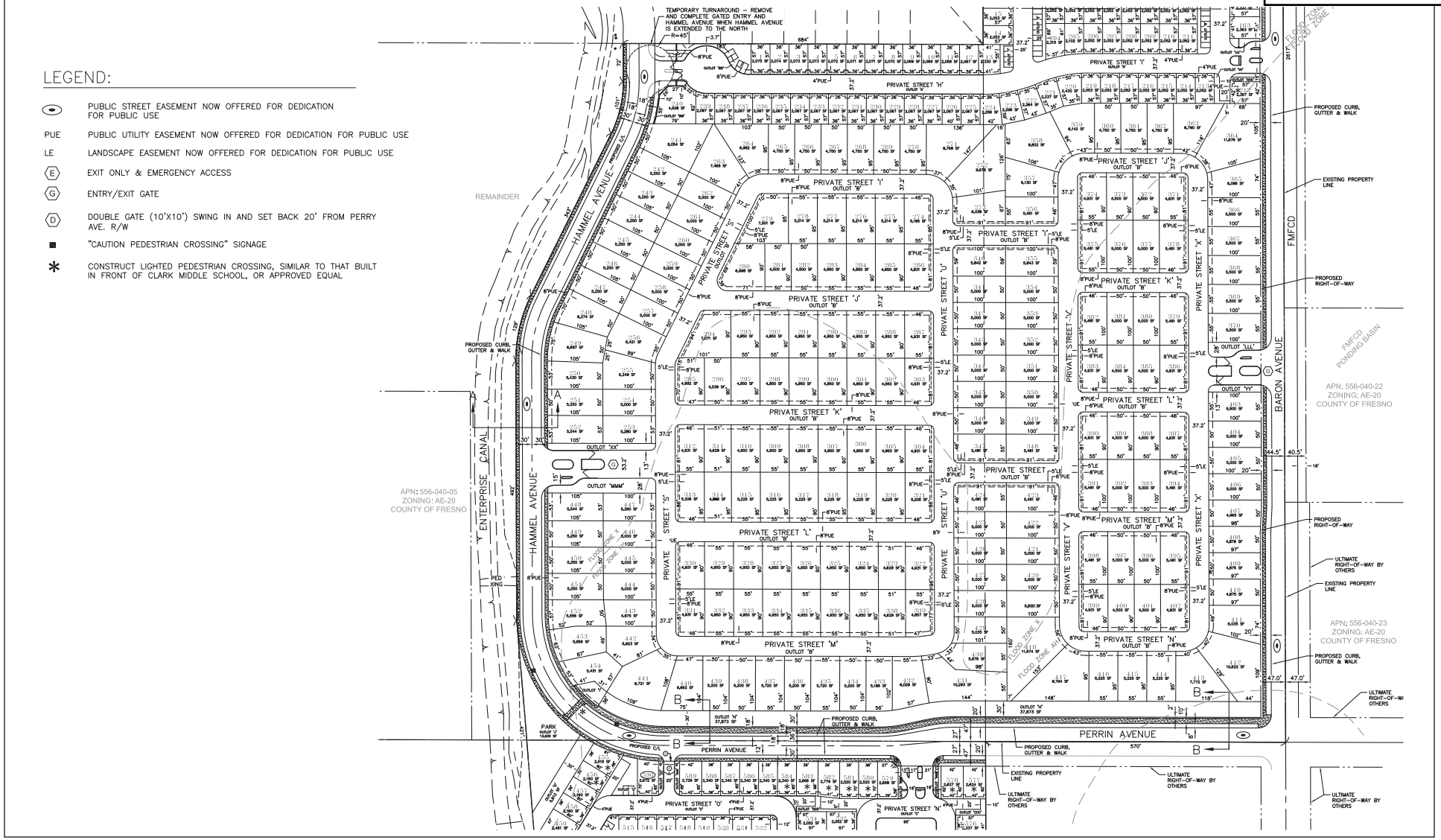
0 60 120
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\South-Phase 1.ai (9/22/2022)

Tract Map 6343
South: Pha

This page intentionally left blank



LSA

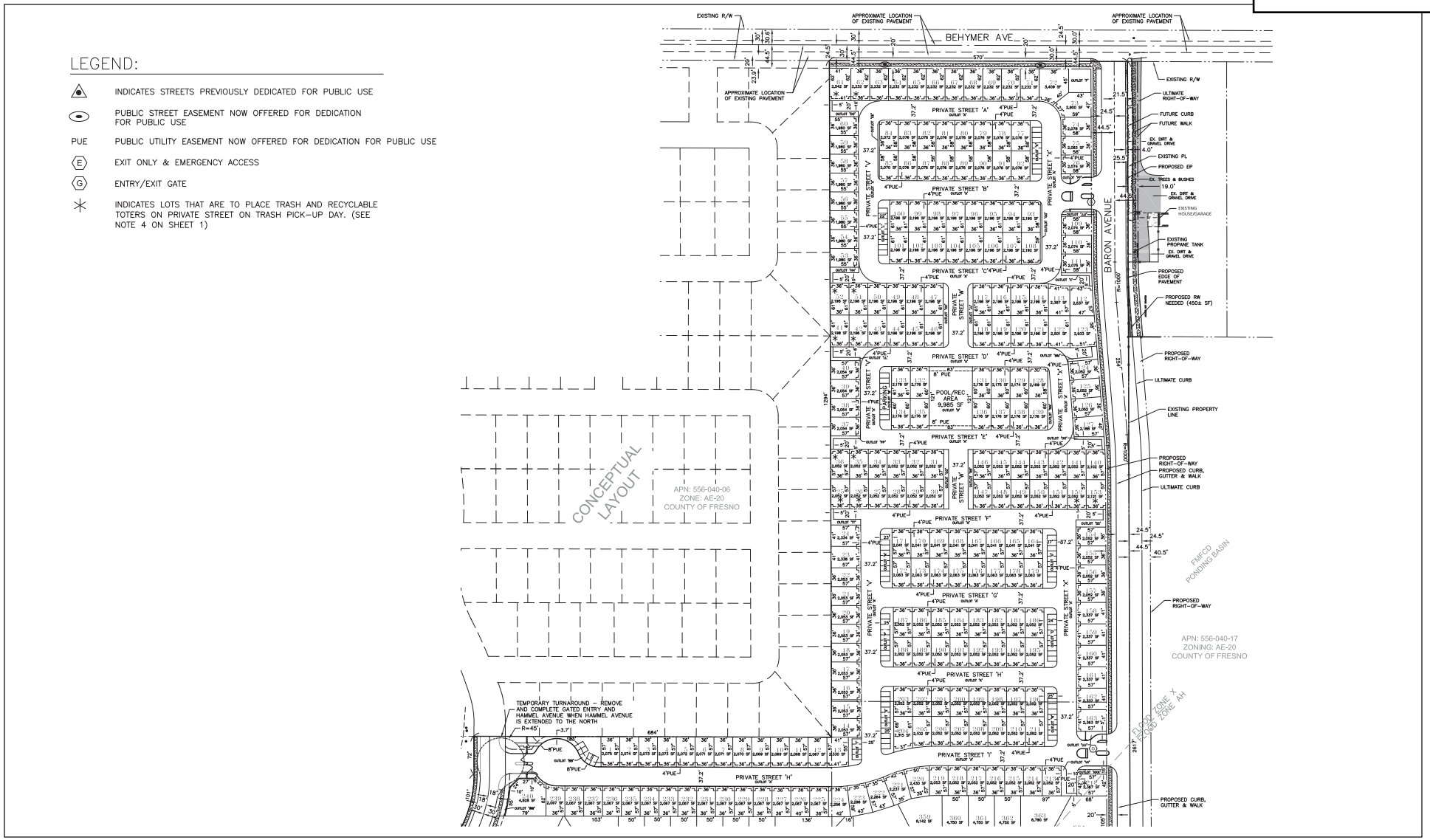
FIGURE 1-5

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\Central-Phase 2.ai (9/22/2022)

Tract Map 6343
Central: Pha

This page intentionally left blank



LSA

FIGURE 1-6

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\North-Phase 3.ai (9/22/2022)

Tract Map 6343
North: Pha

This page intentionally left blank

2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in Chapter 3.0.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	

2.1 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

This page intentionally left blank

3.0 CEQA ENVIRONMENTAL CHECKLIST

3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Impact Analysis

a. Would the project have a substantial effect on a scenic vista?

Less Than Significant Impact. A scenic vista is generally defined as a public vantage point with an expansive view of a significant landscape feature. The Open Space and Conservation Element of the City of Clovis' General Plan identifies Clovis Avenue, Shaw Avenue, and Herndon Avenue as gateways to the community and important visual links to Old Town Clovis from the greater Fresno area. Other arterial roadways that travel east-to-west through the Clovis, such as Shepherd Avenue, Bullard Avenue, and Ashlan Avenue, span the community's suburban/rural interface and therefore can also be construed as scenic corridors. These roadways provide a scenic and character transition through the nearly built-out core of Central Clovis into its pastoral agrarian areas to the north, east, and south.

The project site is currently undeveloped and used for agriculture. The project site is located in the vicinity of West Shepherd Avenue, one of the scenic corridors identified in the General Plan. The project site is also located within the City's Northwest Urban Center, now referred to as Heritage Grove, which offers some of the most direct and unobstructed views of the Sierra Nevada and foothills in the City.[3] The Heritage Grove area is specifically planned for urban growth. The proposed project would develop the 71.54-acre project site into a 590-lot single-family residential development. Although implementation of the proposed project would change the existing

[3] City of Clovis. 2014. General Plan and Development Code Update PEIR. Aesthetics. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-01-Aesthetics.pdf (accessed April 14, 2022).

agricultural land uses in the project site to a single-family residential use, the proposed residential use of the project site would be similar to existing residential uses south of the site, and therefore, the addition of single-family residences at the site would not substantially change views from public vista points. Additionally, the proposed single-family residences to be constructed at the project site would be consistent in size and scale to existing residential units in the vicinity of the project site and would not introduce oversized elements that could obstruct distant views of the Sierra Nevada and foothills.

Therefore, the proposed project would not have a substantial effect on scenic vistas in the vicinity of the project site, and the impact would be less than significant. This topic will not be discussed in the EIR.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to the California Department of Transportation (Caltrans) mapping of State Scenic Highways[4], there are no state-designated scenic highways in or near the City of Clovis. However, State Route 168 (SR-168), an Eligible State Scenic Highway located approximately 2.5 miles south of the project site, bisects the City in a southwest to northeast direction.[5] No Officially Designated or Eligible State Scenic Highways are located within or in the immediate vicinity of the project site. Therefore, the proposed project would not impact a designated or eligible State Scenic Highway or impact scenic resources located within the highway segments or its viewshed. Therefore, no impact on scenic resources within a State Scenic Highway would occur as a result of the proposed project. This topic will not be discussed in the EIR.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The proposed project would include the construction of a 590-lot single-family residential development. The project site is currently undeveloped and used for agriculture, and it is surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north. The proposed project would change the agricultural use of the site to a residential use. Furthermore, the proposed project would introduce Single-Family Planned Residential Development (R-1-PRD) uses into a site zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County.

The proposed project is located within Heritage Grove, a growth area identified for development in the City's General Plan. The proposed project would require approval from Fresno County Local

[4] California Department of Transportation (Caltrans). State Scenic Highways. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways (accessed May 12, 2022).

[5] *Ibid.*

Agency Formation Commission (Fresno LAFCo) for annexation to the City of Clovis. After annexation to the City, site zoning would be compatible with the proposed residential use of the proposed project. Additionally, the single-family residences to be constructed on the project site would be consistent in size and scale to existing residential units to the south of the project site.

Therefore, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality in the City and would not substantially degrade the existing visual character or quality of public views of the project site and its surroundings, and the impact would be less than significant. This topic will not be discussed in the EIR.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The proposed project would include the construction of 590 new single-family residential units within the project site, as well as landscaped, recreational, and utility areas. The construction of new buildings and infrastructure would introduce new sources of light into the project site and vicinity. Compliance with California Building Code (Title 24, California Code of Regulations) standards would reduce potential light and glare impacts. Furthermore, the City's Development Code Update outlines performance standards related to exterior lighting to reduce impacts from new light sources under Article 3 (Development and Operational Standards), Section 9.22.050 (Exterior Light and Glare). Section 9.22.050 states the following:

A. **Exterior Lighting**

1. Exterior Lighting shall be:

   a. Architecturally integrated with the character of on-site and adjacent structure(s);

   b. Directed downward and shielded so that all direct light and glare is confined within the boundaries of the subject parcel;

   c. Installed so that lights not blink, flash, or be of unusually high intensity or brightness. The blink and flash provision does not apply to allowed seasonal decorations in residential areas, 9.34.060(P). The unusually high intensity or brightness provision shall apply in all instances; and

   d. Appropriate in height, intensity, and scale to the uses they are serving.

2. Exterior lighting shall not:

   a. Exceed 150 watts (or equivalent) or directly illuminate or be visible from adjacent properties.

   b. Result in:

1) Indirect illumination of adjacent properties in excess of 0.5 foot-candles;

2) A point of overlap between light patterns greater than seven feet for pedestrian lighting systems; or

3) An intensity of lighting within the physical limits of an area required to be lighted that is greater than seven foot-candles.

B. **Security Lighting.** Security lighting shall be provided at all entrances/exits to structures. The minimum illumination shall be two footcandles at ground level in front of the entrance/exit.

C. **Shielded Lighting.** Light sources shall be shielded to direct light rays onto the subject parcel only. The light source, whether bulb or tube, shall not be directly visible from an adjacent property or public street rights-of-way. This Section does not apply to public street lighting, sign illumination, or traffic safety lighting.

Implementation of State and local policies and standards would reduce impacts associated with light and glare through the adoption and enforcement of development design standards. Additionally, the new sources of light and glare introduced by the proposed project would be comparable to the existing light and glare emitted by residential uses located south of the project site. Therefore, the adverse impacts related to light and glare resulting from the proposed project would be less than significant. This topic will not be discussed in the EIR.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

3.2.1 Impact Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less Than Significant Impact. The project site is classified as "Unique Farmland" and "Farmland of Local Importance" by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP)[6]. The proposed project would develop the 71.54-acre project site into a 590-lot single-family residential development. Therefore, development of the proposed project would result in the conversion of Unique Farmland and Farmland of Local Importance to a non-agricultural use.

[6] California Department of Conservation. 2016. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed April 14, 2022).

The City of Clovis General Plan identifies that build out of the General Plan would result in a significant unavoidable impact related to the conversion of Important Farmland to non-agricultural uses.

Mitigation Measure 2-1 of the General Plan EIR addresses conversion of important farmland associated with build out of the General Plan, and requires project applicants for properties that include 20 acres or more of designated Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to prepare or fund an agricultural resource evaluation, such as a Land Evaluation and Site Assessment (LESA) Model, prior to project approval. The Senate Bill 2 (SB 2) Farmland Impact Assessment[7] prepared for the City of Clovis prepared a LESA Model for the Heritage Grove growth area, which includes the project site, and concluded that conversion of farmland in the Heritage Grove growth area would result in significant unavoidable impacts to important farmland, consistent with the determination of the General Plan EIR.

Additionally, Mitigation Measure 2-1 requires that if farmland conversion is deemed significant, the City would require mitigation at a 1:1 ratio of converted to preserved acreage, or payment of its valuation equivalent if a fee mitigation program is established, or mitigation through a regional agricultural preservation program, if applicable. However, the General Plan EIR does state that even with implementation of Mitigation Measure 2-1, conversion of farmland through build out of the General Plan would represent a significant unavoidable impact. As such, farmland conversion covered under the General Plan cannot be mitigated.

Figure 5.2-5 in the Agriculture and Forestry section of the General Plan EIR identifies the location of Important Farmland in the City's Planning Area to be converted by buildout of the General Plan.[8] Sections of the proposed project currently used for agricultural activities are included among the Important Farmland to be converted by buildout of the General Plan. Additionally, the proposed project is located within Heritage Grove, a growth area identified for development in the General Plan. Development of the proposed project would be consistent with planned growth under the General Plan, and therefore, would not result in unplanned impacts to Important Farmland. Therefore, a less than significant impact would occur. This topic will not be discussed in the EIR.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less Than Significant Impact. The project site is zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. In addition, the project site contains APN 556-030-14S, which is currently under a Williamson Act contract. Following approval of the proposed project and certification of the EIR, the City and Project Applicant will apply to have the project site and annexation area annexed into the City of Clovis and cancellation of the Williamson Act contract, respectively.

---

7 LSA Associates, Inc. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February 2022.

8 City of Clovis. 2014. General Plan and Development Code Update PEIR. Agriculture and Forestry Resources. Figure 5.2-5: Important Farmland Converted at General Plan Buildout. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-02-Agriculture-and-Forestry-Resources.pdf (accessed July 7, 2022).

As noted in the SB 2 Farmland Impact Assessment prepared for the City for the Heritage Grove Growth Area, APN 556-030-014S (the project site) is currently under a Williamson Act contract. A petition for cancellation and statutory findings to support cancellation of the Williamson Act contract would need to be submitted by the Project Applicant as set forth under Government Code Section 51282(a). Additionally, payment of a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcel is required as set forth under Government Code Section 51283(b). The cancellation process for APN 556-030-014S will be completed prior to development of the proposed project.

After annexation of APN 556-030-14S to the City of Clovis and cancellation of the Williamson Act contract, the parcel could develop uses that comply with the zoning designation of the parcel per the City's Zoning Code without the proposed development being inconsistent with a Williamson Act contract.

Furthermore, the City's General Plan identified a significant and unavoidable impact related to conversion of agricultural land uses in the Heritage Grove area to non-agricultural use. As a result, the potential impacts related to conflicts with existing zoning for agricultural use or a Williamson Act contract have been previously addressed in the General Plan EIR, and this project would not result in a new impact. As a result, a less-than-significant impact would occur. This topic will not be discussed in the EIR.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The project site is zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. The project site is not currently used for timberland production, nor is it zoned for forest land or timberland. No forest lands or timberland are located on the project site. The proposed project would not conflict with the existing zoning for, or cause rezoning of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact on forest land or timberland. This topic will not be discussed in the EIR.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use?

No Impact. Please refer to the discussion for c) above. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact. This topic will not be discussed in the EIR.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less Than Significant Impact. Please refer to discussions a) and c) of this section. The project site is not used for timberland production or zoned for forest land or timberland. The project site is classified as "Unique Farmland" and "Farmland of Local Importance" by the California Department

of Conservation FMMP. The proposed project would result in the conversion of farmland to non-agricultural uses. However, conversion of farmland resulting from the proposed project has already been identified in the General Plan EIR, and it would be consistent with planned growth in the City of Clovis under the General Plan. As a result, the proposed project would not result in the conversion of forestland or timberland, or the unplanned conversion of farmland beyond what has been identified by the General Plan. Therefore, the impact would be less than significant. This topic will not be discussed in the EIR.

3.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Impact Analysis

The proposed project is in the City of Clovis' existing Sphere of Influence and northwest planned growth area. The project falls within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is responsible for air quality regulation within the eight-county San Joaquin Valley region.

Both the California Air Resources Board (CARB) and the United States Environmental Protection Agency (EPA) have established health-based Ambient Air Quality Standards for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), particulate matter less than 10 microns in size (PM_{10}), and particulate matter less than 2.5 microns in size ($PM_{2.5}$). These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as PM, CO, SO_2, and Pb are considered local pollutants because they tend to accumulate in the air locally. The San Joaquin Valley Air Basin (Air Basin) is under State non-attainment status for ozone and particulate matter (PM_{10} and $PM_{2.5}$) standards. The Air Basin is also classified as non-attainment for both the federal ozone 8-hour standard and the federal $PM_{2.5}$ 24-hour standard.

A threshold of significance is defined by the SJVAPCD in its Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) as an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Non-compliance with a threshold of significance means the effect will normally be determined to be significant. Compliance with a threshold of significance means the effect normally will be determined to be less than significant. The SJVAPCD has established

thresholds of significance for criteria pollutant emissions generated during construction and operation of projects as shown in Table 3.A below.[9]

Table 3.A: SJVAPCD Construction and Operation Thresholds of Significance (tons/yr)

	CO	NO_X	ROG	SO_X	PM_{10}	$PM_{2.5}$
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015a.)
CO = carbon monoxide
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gas
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_X = oxides of sulfur
tons/yr = tons per year

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The California Environmental Quality Act (CEQA) requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the Air Basin into attainment, the SJVAPCD adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.[10]

To assure the Air Basin's continued attainment of the EPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007. SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) is designed to reduce PM_{10} emissions generated by human activity. The SJVAPCD adopted the 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ standard to address the EPA federal annual $PM_{2.5}$ standard of 12 micrograms per cubic meter ($\mu g/m^3$), established in 2012. In addition, the SJVAPCD is in the process of developing an attainment strategy to address multiple $PM_{2.5}$

[9] San Joaquin Valley Air Pollution Control District. 2015b. Air Quality Thresholds of Significance – Criteria Pollutants. Website: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (accessed on April 14, 2022).

[10] San Joaquin Valley Air Pollution Control District. 2016. 2016 Plan for the 2008 8-Hour Ozone Standard. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed April 14, 2022).

standards (1997, 2006, and 2012 $PM_{2.5}$ standards) and a plan to demonstrate maintenance of the 1987 PM_{10} standard as required under the federal Clean Air Act.

For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. Construction and operation of the proposed project may result in an increase in air pollutant emissions. As a result, the proposed project could have a potential adverse effect on the SJVAPCD's implementation of clean air plans. Therefore, the EIR will provide further analysis of the proposed project's consistency with the SJVAPCD's clean air plans.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Potentially Significant Impact. CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a cumulatively significant impact.

Short-term emissions would occur in association with construction activities, including grading, and vehicle/equipment use. Long-term operational emissions are associated with stationary sources and mobile sources. Stationary source emissions result from the consumption of natural gas and electricity. Mobile source emissions result from vehicle trips and result in air pollutant emissions affecting the entire air basin. As noted above, specific criteria for determining whether the potential air quality impacts of a project are significant are set forth by the SJVAPCD.

Construction and operation of the proposed project would result in the emission of air pollutants in the Air Basin, which is currently in non-attainment for federal and State air quality standards. Therefore, implementation of the proposed project could potentially contribute to air quality impacts, which could cause a cumulative impact in the Air Basin. Therefore, the EIR will provide further analysis of cumulative air pollutant emissions associated with the project.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. The closest potentially sensitive receptors to the project site include residential uses located directly adjacent to the project site's eastern boundary and residential uses that are currently under construction south of the project site.

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). Therefore, the EIR will provide further analysis of air pollutant emissions associated with the proposed project.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. During construction of the proposed project, the various diesel-powered vehicles and equipment in use on site and off site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. In addition, the proposed uses that would be developed within the project site are not expected to produce any offensive odors that would result in frequent odor complaints. The proposed project would not create objectionable odors affecting a substantial number of people during project construction or operation, and this impact would be less than significant. This topic will not be discussed in the EIR.

3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Argonaut Ecological Consulting conducted a Biological Resource Assessment[11] (BRA) to assess potential impacts of the proposed project on biological resources. The following methodology was utilized to assess the biological study area of the proposed project:

- **Data and Literature Review:** Documents and sources of information used to prepare this evaluation include the following:
    - United States Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Fresno Area (Soils Mapper)
    - Aerial photography (Google Earth®, Bing®, and historic aerials)
    - California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDB/RareFind – Recent version with updates)

[11] Argonaut Ecological Consulting. 2022. Biological Resources Assessment – Tentative Tract 6343 and City of Clovis Annexation Area. September 26.

- CDFW Open Data Portal, ArcGIS GeoService
- United States Fish and Wildlife Service (USFWS), National Wetland Inventory Map
- USFWS Information for Planning and Consultation (IPaC).
- United States Geological Survey (USGS), Historical Topographic Map, Clovis and Friant Quadrangles, 1919, University of Texas, Austin, Perry-Castañeda Map Collection

Prior to review of the project site, the CNDDB/RareFind and the USFWS IPaC were consulted to determine the species potentially present within the biological study area based on location.

- **Aerial Photography and Wetland Mapping:** Historical aerial photographs dating from the 1980s of the biological study area were reviewed to identify site features and determine land use changes over time. Wetland mapping and aerial photographs were also reviewed to determine if the biological study area recently supported wetlands.

- **Field Survey:** A field survey was conducted on the project site on August 6 and 7, 2022. The project site was walked, and habitat features mapped. Review of the annexation area of the proposed project included a combination of observation from public roads, and limited foot surveys of accessible areas. Soils, vegetation, and drainage patterns within the biological study area were inspected to determine the habitat present and suitability for species of concern.

3.4.1 Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. The proposed project would result in the construction of a 590-lot residential development for single-family residences in the approximately 71.54-acre site located in the Heritage Grove area.

The project site is currently dominated by ruderal species and by nonnative grassland previously used for cattle grazing. No special-status plant species are expected to occur within the project site or to be adversely affected by the proposed project. While no special-status animal species (or signs of such species) were observed on site during the August 2022 survey, eight existing trees surrounding the existing residential unit within the project site could provide suitable nesting habitat for a variety of birds, including Swainson's hawk (*Buteo swainsoni*). Additionally, there is potential for the western burrowing owl (*Athene cunicularia*) to nest in old pipelines around the existing residential unit or along the Enterprise Canal. No suitable habitat for any other special-status species occurs in the project site. Potentially significant direct and indirect impacts, including mortality, harassment, or other forms of incidental take, could occur during proposed removal of existing trees and the exiting residential unit in the project site and due to site disturbance associated with construction activities. Mitigation Measures BIO-1 through BIO-4, outlined below,

would reduce the impact of the proposed project on special-status species to less than significant. As such, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The impact would be less than significant with mitigation, and this topic will not be discussed in the EIR.

Mitigation Measure BIO-1 **Nesting Bird Surveys and Active Nest Avoidance.** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 15 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.

Mitigation Measure BIO-2 **Conduct Surveys for Swainson's Hawk Nests and Implement Avoidance and Minimization Measures.** The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct pre-construction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records will be used to support the survey.

Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status

of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW).

If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated.

Mitigation Measure BIO-3 **Conduct Pre-construction Clearance Surveys for Burrowing Owl.** A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site.

Mitigation Measure BIO-4 **Passive Relocation Measures for Burrowing Owl.** If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging

habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993).

If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact. No riparian habitat or other sensitive natural communities have been identified within the project site. The project site is disturbed from past agricultural activities, and mainly contains ruderal vegetation and nonnative grassland. As such, the proposed project would not have substantial adverse effects on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS, and the impact would be less than significant. This topic will not be discussed in the EIR.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant with Mitigation Incorporated. The proposed project would result in the construction of a 590-lot residential development for single-family residences in an approximately 71.54-acre site in the Heritage Grove area.

The main aquatic feature in the vicinity of the project site is Enterprise No. 109 Canal (Enterprise Canal), an irrigation canal managed by the Fresno Irrigation District. Enterprise No. 109 Canal does not meet the current definition of a jurisdictional water of the United States and does not meet the wetland criteria wetland criteria outlined in the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, which excludes agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state.

Nevertheless, the Enterprise No. 109 Canal may fall within the jurisdiction of CDFW under Section 1602 of the California Fish and Game Code and the Regional Water Quality Control Board (RWQCB) under the California Water Code (e.g., the Porter-Cologne Water Quality Control Act). Furthermore, given the recent substantial changes in operable definitions that have occurred and may continue to occur, and considering the regulatory revisions and potential court actions, it is not possible to definitively predict the regulations that will be in place at the time of a particular jurisdictional determination or permit action by the United States Army Corps of Engineers (USACE). Under currently effective Clean Water Act regulations and guidance, the USACE reserves the right to regulate certain resources on a case-by-case basis. Therefore, Regulatory Compliance Measure BIO-1 is recommended. Implementation of this measure would reduce potential impacts to protected wetlands to less than significant.

As such, the proposed project would not have a substantial adverse effect on state or federally protected wetlands, and the impact would be less than significant with mitigation. This topic will not be discussed in the EIR.

Regulatory Compliance Measure BIO-1	**Agency Coordination for Enterprise No. 109 Canal.** Prior to any modifications to Enterprise No. 109 Canal, it is recommended to consult with the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). If direct modifications to the canal are proposed, a notification of streambed alteration shall be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE shall be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Enterprise No. 109 Canal modifications.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The project site is disturbed from past agricultural activities, and mainly contains ruderal vegetation and nonnative grassland. Based on field observations and the location of the project site, there are no indications that the project site functions as a wildlife movement corridor, or an important stopover point for migratory species. The wildlife species that occur in the vicinity of the project site are adapted to the urban-wildland interface. The noise,

vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. The proposed project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity.

Existing trees on site could provide limited nesting habitat to native and migratory bird species, including Swainson's hawk. Furthermore, there is limited potential for Burrowing owls nesting in the vicinity of the existing residential unit onsite, as well as the vicinity of Enterprise No. 109 Canal. Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of take by the CDFW. Implementation of Mitigation Measures BIO-1 through BIO-4 would ensure that take of nesting migratory bird species, as well as of special-status species such as Swainson's hawk and burrowing owl, is avoided.

As such, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The impact would be less than significant. This topic will not be discussed in the EIR.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The Clovis Development Code includes tree protection standards for any trees that may need to be removed during construction. Compliance with the tree protection standards of the Clovis Municipal Code would require the replacement of trees and/or payment of in-lieu fees. The project would be required to comply with the tree protection ordinance; therefore, the impact would be less than significant.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The PG&E San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP) was approved in 2007 and covers portions of nine counties, including Fresno County. This HCP covers PG&E activities that occur as a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the USFWS and CDFW. The project site is not located within the covered area of any approved or draft HCP, Natural Communities Conservation Plan (NCCP), or other adopted local, regional or State HCP. Therefore, the proposed project would not conflict with the provisions of the PG&E HCP, and the proposed project would have no impact. This topic will not be discussed in the EIR.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Peak & Associates, Inc. prepared a Cultural Resource Assessment (CRA)[12] for the proposed project to assess potential impacts to cultural resources. The following discussion summarizes the methodology and results of the study:

- **Southern San Joaquin Valley Information Center:** A record search of the study area for the proposed project and a 0.25-mile search radius was conducted on through the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) on September 6, 2022 (SSJVIC Records Search File No. 22-334).

  The record search results indicated that no portion of the project site has ever been previously surveyed for cultural resources. Two resources were identified within the study area: a waste disposal site (P-10-006461) found during excavation for a utility pole in the northeast corner of the annexation area in 2015, and the Enterprise Canal, recorded as P-FRE-3564-H. Within the 0.25-mile radius search, six historic period resources have been recorded.

- **Field Survey:** On September 14, 2022, and September 15, 2022, Peak & Associates, Inc. staff conduced a field survey of the project site. The project site was walked on its entirety and surveyed.

- **Results:** No features or artifacts of historical or prehistoric nature were observed in the project site during the field survey. The existing residential unit onsite is less than 50 years old and would not be considered a historical resource.

3.5.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. A historical resource defined by CEQA includes one or more of the following criteria: (1) the resource is listed, or found eligible for listing in, the California Register of Historical Resources (California Register); (2) listed in a local register of

[12] Peak & Associates, Inc. 2022. Cultural Resource Assessment for the Tentative Tract Map 6343 and City of Clovis Annexation Area, County of Fresno, California. September 21.

historical resources as defined by Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by the project's lead agency (PRC Section 21084.1; *CEQA Guidelines* Section 15064.5(a)). Under CEQA, historical resources include built-environment resources and archaeological sites.

The proposed project would result in the construction of a 590-lot residential development for single-family residences. According to the CRA for the project, no historical resources were identified within the project site during the record search or field survey. However, development of previously undeveloped land in the City could result in the discovery of previously unknown historical resources.

To reduce potential impacts on potentially undiscovered historical resources in the project site, Mitigation Measure CUL-1 shall be implemented. This mitigation measure would reduce potential impacts to undiscovered resources to a less than significant level by consulting with a qualified historical resources specialist and implementing applicable mitigation measures to protect resources found during project construction. This topic will not be discussed in the EIR.

Mitigation Measure CUL-1

Consultation with Qualified Historical Specialist for Resources Found During Project Construction. If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study.

The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the *CEQA Guidelines*.

If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the *CEQA Guidelines*, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center .

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. Pursuant to *CEQA Guidelines* Section 15064.5(c)(1), "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource..." Those archaeological sites that do not qualify as historical resources shall be assessed to determine if they qualify as "unique archaeological resources" pursuant to California PRC Section 21083.2. Archaeological cultural resources identified during project construction shall be treated by the City in consultation with a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology, and in accordance with Mitigation Measure CUL-1 as identified above in Section 3.5.a. With implementation of these measures, impacts to archaeological resources would be less than significant. This topic will not be discussed in the EIR.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 shall apply, as appropriate. Furthermore, implementation of Mitigation Measure CUL-2 would ensure compliance with applicable laws and regulations pertaining treatment and disposition human remains, reducing potential impacts on unknown human remains to a less than significant level. This topic will not be included in the EIR.

Mitigation Measure CUL-2

In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.

Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further

development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Project Applicant shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

3.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Less Than Significant Impact. The proposed project would be constructed using energy-efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, California Code of Regulations [CCR] Sections 1601 through 1608). The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for residential uses in the Clovis; however, energy consumption is largely a function of personal choice and the physical structure and layout of buildings. It can be assumed that implementation of the proposed project would result in additional energy demand in Clovis. The proposed project would be required to comply with the City's energy efficiency policies, including Policies 3.5, 3.6, and 3.7 from the Open Space and Conservation Element of the General Plan as follows:

> **Policy 3.5: Energy and Water Conservation.** Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the California Building Code.
>
> **Policy 3.6: Renewable Energy.** Promote the use of renewable and sustainable energy sources to serve public and private sector development.
>
> **Policy 3.7: Construction and design.** Encourage new construction to incorporate energy efficient building and site design strategies.

Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. As such, the proposed project would have a less than significant impact. This topic will not be discussed in the EIR.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. As discussed in a) above, the proposed project would be required to comply with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) and with General Plan policies for energy efficiency and conservation. The proposed project would also be required to implement the California Green Building Standards Code (CALGreen Code) (CCR Title 24, Part 11) and the California Energy Code (CCR Title 24, Part 6), which include provisions related to insulation and design aimed at minimizing energy consumption. Therefore, the proposed project would comply with State and local policies plan for renewable energy or energy efficiency, and the impact would be less than significant. This topic will not be discussed in the EIR.

3.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Impact Analysis

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. Fault ruptures are generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., within the past 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. The project site is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, no known active or potentially active faults or fault traces are located in the vicinity of the project site. The closest active faults to the project site are the Nunez Fault, located approximately 60 miles southwest of the project site and the Ortigalita Fault, located approximately 66 miles southwest of the

project site. Due to the distance of these known faults, no people or structures would be exposed to potential substantial adverse effects, including the risk of loss, injury, or death from the rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. Therefore, potential impacts related to fault rupture would be less than significant. This topic will not be discussed in the EIR.

ii. Strong seismic ground shaking?

Less Than Significant Impact. While Clovis is not located within an Alquist-Priolo Earthquake hazard zone, some ground shaking may occur within the City Planning Area depending on the amount of energy released from a nearby fault, or the magnitude of the earthquake. The proposed project would be required to conform to California Building Code (CCR Title 24) seismic safety standards, which take multiple factors into account, such as occupancy type, soil type, and ground motion with a specified probability at the project site. Compliance with the California Building Code would ensure that geotechnical design of the proposed project would reduce potential impacts related to seismic ground shaking to less than significant. This topic will not be discussed in the EIR.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy. Liquefaction and lateral spreading potential in Fresno County and Clovis is considered very low due to the nature of the underlying soils and history of low ground-shaking potential in the region. Furthermore, compliance with the California Building Code would ensure potential impacts associated with seismic-related ground failure would be less than significant. This topic will not be discussed in the EIR.

iv. Landslides?

Less Than Significant Impact. Landslides typically occur in areas that experience ground shaking, are typically wet and/or have steep slopes. The proposed project is located in Clovis, which is an area that consists of mostly flat topography within the Central Valley and has low ground-shaking potential. Additionally, the project site is not located next to any hills, rivers, creeks or unlined canals that could increase the risk of landslides. Therefore, the potential for the proposed project to expose people or structures to risk as a result of landslides would be less than significant. This topic will not be discussed in the EIR.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Grading and earthmoving during project construction has the potential to result in erosion and loss of topsoil. Exposed soils could be entrained in stormwater

runoff and transported off the project site. However, this impact would be reduced to a less-than-significant level through compliance with water quality control measures, which include preparation of a Stormwater Pollution Prevention Plan (SWPPP) (refer to Section 3.10, Hydrology and Water Quality). Although designed primarily to protect stormwater quality, the SWPPP would incorporate Best Management Practices (BMPs) to minimize erosion during construction. Additional details regarding the SWPPP are provided in Section 3.10, Hydrology and Water Quality, of this Initial Study. This impact would be less than significant. This topic will not be discussed in the EIR.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As described in discussion a) in this section, soils on the project site would not be subject to liquefaction, lateral spreading, or landslides. Additionally, the proposed project would be required to conform with the California Building Code, which would reduce risks related to unstable soils. Therefore, the proposed project would have a less than significant impact related to unstable soils. This topic will not be discussed in the EIR.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. The project site contains Exeter sandy loam, Tujunga loamy sand, Atwater sandy loam, and Ramona sandy loam, soils which have a medium to low shrink-swell potential.[13] Compliance with California Building Code requirements would ensure the implementation of design features that would reduce potential impacts related to expansive soils to a less than significant level. As such, the risk of expansive soil affecting the proposed project is considered low and would represent a less than significant impact. This topic will not be discussed in the EIR.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The City's Public Utilities Department currently manages the City's sewer system and wastewater treatment facilities. Wastewater from the City's collection system is treated at the Clovis Water Reuse Facility and the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF). Development of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. The proposed project would be required to pay development fees and fund the construction or expansion of wastewater infrastructure, as applicable, to ensure that the public sewer system would serve the project site. Therefore, the proposed project would have no

[13] Natural Resources Conservation Service. n.d. Web Soil Survey. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed April 14, 2022).

impact related to septic tanks or alternative wastewater disposal systems. This topic will not be discussed in the EIR.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Paleontological resources are afforded protection under *CEQA Guidelines*, Appendix G. The *CEQA Guidelines* indicate that a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site, or a unique geologic feature. PRC Section 5097.5 also specifies that the unauthorized removal or damage of paleontological remains is a misdemeanor. The California Penal Code Section 622.5 also sets penalties for removal or damage of paleontological resources.

The project site has been partially developed and used for agricultural production. In addition, there have been no known discovery of occurrences of paleontological resources in the immediately surrounding areas. Although the project site has been previously disturbed, it is possible that paleontological resources could be inadvertently or accidentally discovered within the project site during construction activities. Mitigation Measure GEO-1 would serve to protect the accidental discovery of paleontological resources. As such, a less than significant impact with mitigation would occur. This topic will not be discussed in the EIR.

Mitigation Measure GEO-1 If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource.

If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.

3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

3.8.1 Impact Analysis

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide (CO_2), which is the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the project site and

motor vehicles transporting the construction crew would produce GHGs. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Long-term operation of the proposed project would generate GHG emissions from mobile and stationary sources. Mobile-source emissions of GHG would include vehicle-related emissions associated with the private vehicles owned by residents and employees of the project site. Stationary emissions of GHG would include electricity and natural gas consumption from residences at the project site.

The EIR will provide further analysis of the proposed project's GHG emissions.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. As discussed above, the project has the potential to emit GHGs. As such, the EIR will include further evaluation of project-related emissions and associated emission reduction strategies to determine whether the proposed project conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Construction activities associated with the proposed project would involve the use of limited amounts of potentially hazardous materials, including but not limited to, solvents, paints, fuels, oils, and transmission fluids. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the California Department of Toxic Substances Control (DTSC), the EPA, and the Occupational Safety and Health Administration (OSHA). No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials or emitting significant amounts of hazardous substances would occur within the project site. All storage, handling, and disposal of hazardous materials during project construction and operation would comply with applicable standards and regulations, including Policies 1.4, 2.1, 2.3, and 2.4 from the Environmental Safety Element of the General Plan:

Policy 1.4: Facilities that use hazardous materials. Prohibit facilities using, storing, or otherwise involved with hazardous or toxic materials to be located in the 100-year flood zone unless all standards of elevation, flood proofing, and storage have been implemented.

Policy 2.1: Safe storage and maintenance. The use and storage of hazardous materials shall comply with applicable federal, state, and local laws to prevent and mitigate hazardous materials releases.

Policy 2.3: Truck routes for hazardous materials. Maintain designated truck routes for the transportation of hazardous materials through the City. Discourage routes that pass through residential neighborhoods to the maximum extent feasible.

Policy 2.4: Hazardous materials response team. Maintain a Type 1 hazardous materials response team serving the City of Clovis.

As a result, the proposed project would not create significant hazards to the public or environment through the transport, use or disposal of hazardous materials, and a less than significant impact would occur. This topic will not be included in the EIR.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. See discussion a) above. The proposed project would not use substantial amounts hazardous materials which release would result in a significant hazard to the public or the environment. Additionally, the proposed project would also comply, as applicable, with General Plan Policies 1.4, 2.1, 2.3 and 2.4 from the Environmental Safety Element, which require compliance with local, State and federal standards and procedures for the handling, use, transport and disposal of hazardous materials. This impact would be less than significant. This topic will not be included in the EIR.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The closest existing schools to the project site are Woods Elementary School, located approximately 0.75 mile south of the project site, and Buchanan High School, located approximately 1.08 miles southeast of the project site. As previously stated, the proposed project would not result in the use or emission of substantial quantities of hazardous materials that would pose a human or environmental health risk. In addition, all hazardous materials within the project site would be handled, stored, and disposed of in accordance with applicable standards and regulations. Therefore, because the proposed project would not result in the emission of hazardous materials or acutely hazardous substances in the vicinity of a school, a less than significant impact would occur. This topic will not be included in the EIR.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. According to the DTSC EnviroStor database,[14] the project site is not located on a federal superfund site, State response site, voluntary cleanup site, school cleanup site, evaluation site, school investigation site, military evaluation site, tiered permit site, or corrective action site. Additionally, the project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[15] Therefore, the proposed project would not create a significant hazard to the public, and a less-than-significant impact would occur. This topic will not be included in the EIR.

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less Than Significant Impact. The nearest airports to the project site include the Fresno Yosemite International Airport, located approximately 6.5 miles southwest of the project site, Fresno Chandler Executive Airport, located approximately 11.7 miles southwest of the project site, and the Sierra Sky Airport, located approximately 9.6 miles southwest of the project site. The nearest medical center helipads (HP) to the project site include the Clovis Community Hospital HP located approximately 3.34 miles southeast of the project site, the Saint Agnes Medical Center HP, located approximately 4.2 miles southwest of the project site, and the Valley Children's Hospital HP located approximately 5.33 miles west of the project site.[16] Due to the distance between the project site and local airports and helipads, operations at these locations are not expected to pose a safety hazard for people residing in the project site. Therefore, the proposed project would not expose persons to airport-related hazards, and the potential impact would be less than significant. This topic will not be included in the EIR.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The California Emergency Services Act requires cities to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The Clovis Fire Department maintains the City's Emergency Operations Plan (EOP). The proposed project would include the construction of 590 new single-family residential units within the project site, as well as landscaped, recreational, and utility areas. The proposed project would also result in the construction of extensions of North Baron

[14] California Department of Toxic Substances Control. 2007. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=clovis (accessed April 14, 2022).

[15] California Environmental Protection Agency (CalEPA). 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List. Website: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/ (accessed April 14, 2022).

[16] California Department of Transportation (Caltrans). 2019. Caltrans HeliPlates. Website: https://heliplates.dot.ca.gov/# (accessed April 14, 2022).

Avenue, Perrin Avenue, and Hammel Avenue to facilitate access to, and circulation within, the project site.

The proposed improvements to North Baron Avenue, Perrin Avenue, and Hammel Avenue are not expected to block the circulation of emergency response services in the vicinity of the project site or introduce elements that would conflict with the operations of the City's EOP. After construction, the proposed extensions to North Baron Avenue, Perrin Avenue, and Hammel Avenue would improve access of emergency response vehicles to the project area and evacuation from the project area. Therefore, the proposed project would not interfere with emergency evacuation plans in Clovis, and this impact would be less than significant. This topic will not be included in the EIR.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. The project site is located in an area mapped by the California Department of Forestry and Fire Protection (CAL FIRE) as Local Responsibility Area (LRA) Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a very high fire hazard severity zone (VHFHSZ).[17] However, the project site is in the vicinity of a moderate fire hazard zone. As such, implementation of the proposed project could expose people and/or structures to fire hazard by development near a moderate fire hazard severity zone. In compliance with the General Plan EIR, projects built or developed within a fire hazard severity zone would be required to comply with Chapter 7A of the California Building Code. Any project developed or redeveloped surrounded by or next to forest, brush, grass, or other flammable vegetation would also be mandated to comply with requirements regarding hazardous vegetation, defensible space, and fuel management in California PRC Sections 4291 et seq. and in Sections 4906 and 4907 of the California Fire Code (CFC). Implementation of these regulations would reduce potential impacts associated with wildland fires to a less-than-significant level. This topic will not be included in the EIR.

[17] California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fresno County Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed April 14, 2022).

3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on or off site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. The State Water Resources Control Board (SWRCB) and nine RWQCBs regulate the water quality of surface water and groundwater throughout California. The proposed project is within the jurisdiction of the Central Valley RWQCB.

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During project construction, there would be an increased potential to expose soils to wind and water erosion, which could result in temporary minimal increases in sediment load in nearby water bodies.

In compliance with the General Plan, any development project disturbing one or more acres of soil must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activities subject to the Construction General Permit includes clearing, grading, and other ground-disturbing

activities such as stockpiling or excavation. The Construction General Permit requires development and implementation of a SWPPP.

A SWPPP includes features designed to eliminate contact of rainfall and stormwater runoff with sources of pollution that occur on construction sites, the main source being soil erosion resulting from unstabilized soils coming in contact with water and wind. These features are known as BMPs. Common BMPs to limit pollution in stormwater runoff from construction sites include maintaining or creating drainages to convey and direct surface runoff away from bare areas and installing physical barriers such as berms, silt fencing, waddles, straw bales, and gabions. Consistency with the Construction General Permit, including the SWPPP and BMPs, would reduce project construction impacts on water quality to less than significant levels.

To address long-term impacts to groundwater quality, the proposed project would comply with the Fresno-Clovis Storm Water Quality Management Program (SWQMP)[18], which requires the implementation of BMPs to manage urban stormwater runoff in the Fresno Metropolitan Area. These BMPs require the implementation of site drainage designs and post-construction measures that prevent stormwater pollution, as well as compliance with City of Clovis standards to improve stormwater quality. Compliance with this program would reduce potential impacts to groundwater quality from the proposed project. The Project Applicant would be required to pay Local Drainage Fees to fund drainage improvements pursuant to the FMFCD Master Plan and the SWQMP. Therefore, the proposed project would not violate any water quality standards, waste discharge requirements, or substantially degrade surface or groundwater quality, and the impact would be less than significant. This topic will not be included in the EIR.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Water supply, and water and wastewater circulation services for the proposed project would be provided by the City of Clovis through the Department of Public Utilities. The City of Clovis relies upon groundwater, surface water, and recycled water for its water supply.

The City extracts groundwater from the Kings Subbasin, an unadjudicated basin with a status of critically overdrafted. The proposed project would construct a 590-lot residential development in a previously undeveloped site. The proposed project would result in an increase of impervious surfaces in the currently undeveloped project site. However, the project would not require groundwater pumping for project operations. As previously discussed, the City extracts groundwater from the Kings Subbasin through a well system containing 36 active wells and one standby well with a total capacity of approximately 37,690 gallons per minute (gpm) with another 4,750 gpm of additional capacity planned in the next few years. According to the City's 2020 Urban Water

[18] Fresno Metropolitan Flood Control District (FMFCD). 2020. Fresno-Clovis Storm Water Quality Management Program: FY 2019-20 Annual Report. October 1. Website: http://www.fresnofloodcontrol.org/wp-content/uploads/2020/09/2019-20-Annual-Report-FINAL.pdf (accessed December 6, 2022).

Management Plan[19], the City conducted 5,316 acre-feet (AF) of intentional recharge activities at various basins, creeks, and landscape areas throughout the City's service area. Stormwater throughout the City is collected in FMFCD basins, where collected stormwater is allowed to percolate into the soil as groundwater recharge. The FMFCD allows the City to utilize 17 stormwater basins throughout the City's service area for recharge purposes. The FMFCD urban stormwater drainage system would provide groundwater infiltration for runoff from developed land uses in detention basins in the City's drainage system service area. As Clovis continues to grow, the City intends to expand its surface water supply use, recycled water use, and to continue intentional groundwater recharge efforts to relieve pressure on the groundwater aquifer. The proposed project would aid groundwater recharge in the Kings Subbasin through compliance with the Urban Water Management Plan (UWMP) and construction of surface and subsurface drainage infrastructure, per design requirements of the City and FMFCD, along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site to direct stormwater towards FMFCD Basin BY, which is located adjacent to the project site's eastern boundary. In addition, a 1,300-foot-long, 26-foot-wide drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows west from the project site towards drainage infrastructure along the Enterprise Canal. As such, the proposed project would not interfere with groundwater recharge in the Kings Subbasin, and impacts would be less than significant.

In addition to the groundwater supplies, the City also has access to surface water through several different contracts, all of which are delivered to the City by the Fresno Irrigation District (FID). The various surface water supplies are from the Kings River and Central Valley Project (Class II supplies, which are less reliable than other surface water supplies). Lands located within the Kings River service area are generally entitled to an average annual allotment of approximately 2.24 acre-feet per year per acre (AFY/ac). According to a Water Infrastructure Investigation prepared for the proposed project, and included as Appendix B of this Initial Study, approximately 38.6 acres of the project site are located within the FID service area and 32.9 acres are located outside of the FID service area. The Water Infrastructure Investigation has determined that the proposed Medium Density Residential use of the project has a water demand of 3.3 AFY/ac, making annual water demand in the project site approximately 236 AFY. Because the water demand of the project is higher than the allocation of the FID, and the FID would only supply water for approximately 54 percent of the project site (approximately 86.5 AFY), the proposed project would require additional water supply from the City of Clovis. The proposed project would be required to pay applicable development fees to the City to fund acquisition of additional water supplies. After payment of applicable fees, the City would be able to provide sufficient water supply for the project.

As identified in the Water Supply Assessment, included as Appendix C of this Initial Study, the City will have sufficient water supplies to provide water to this project. As such, the proposed project would not substantially decrease water supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin. As a result, this project would result in a less-than-significant impact related to impeding the

[19] City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed December 6, 2022).

sustainable groundwater management of the Kings Subbasin. This topic will not be included in the EIR.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on or off site;

Less Than Significant Impact. Ground-disturbing activities associated with construction of the proposed project would expose native soils that could be subject to the effects of wind and water erosion unless adequate measures are taken to limit the transport of soils in surface water from construction sites to downstream locations. As discussed under discussion a) in this section, the Project Applicant would be required to implement a SWPPP that would identify specific measures to address erosion and siltation resulting from grading and construction.

Stormwater collection and disposal, and flood control for the City of Fresno, City of Clovis, and the unincorporated areas within the City of Clovis SOI are provided by the FMFCD. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue, as well as along internal roadways in the project site, and redirected towards Basin BY, which is located adjacent to the project site's eastern boundary. Compliance with the FMFCD's SWQMP would require the implementation of BMPs that would manage the release of pollutants and sediments from the project site into stormwater, thus managing potential impacts resulting from erosion and saltation on the project site. Implementation of these measures would reduce potential impacts related to erosion and saltation to less than significant. This topic will not be included in the EIR.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

Less Than Significant Impact. The proposed project would construct a 590-lot residential development in the project site. The project site is mainly undeveloped, and therefore, implementation of the proposed project would increase impervious surfaces at the project site that could increase surface runoff. Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site, and redirected towards Basin BY, located adjacent to the project site's eastern boundary. The Project Applicant would be required to pay drainage fees to the FMFCD to fund drainage facilities and address impacts related to increased amount of surface runoff resulting from development of the project site. The construction of stormwater facilities would handle surface runoff in a manner that would exceed the capacity of existing or planned drainage infrastructure in the vicinity. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less Than Significant Impact. Please refer to discussions a) and c) i and ii in this section. The proposed project would result in an increase of impervious surfaces, which can contribute to surface runoff. However, implementation of a SWPPP and compliance with the City's SWQMP would ensure that the proposed project would not generate additional sources of polluted runoff. Additionally, the Project Applicant would be required to pay drainage fees to the FMFCD to address impacts related to increased amount of surface runoff resulting from the proposed project. The construction of proposed stormwater facilities would handle surface runoff in a manner that would exceed the capacity of existing or planned stormwater drainage systems in the vicinity. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

iv. Impede or redirect flood flows?

Less Than Significant Impact. Sections of the project site are located within a 100-year flood hazard zone as mapped by the Federal Emergency Management Agency (FEMA).[20] The City of Clovis Municipal Code Section 8.12, Floodplain Management lists standards and design requirements for new construction and development within special flood zones. Policy 1.1 from the General Plan Environmental Safety Element also prohibits development within the 100-year flood zone unless adequate mitigation against flood hazards is provided. The proposed project would implement flood hazard mitigation required by the City's Municipal Code. Implementation of these requirements would ensure the proposed project does not impede or redirect flood flows, and the impact would be less than significant. This topic will not be included in the EIR.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less Than Significant Impact. The project site is not located in tsunami or seiche zones. Parts of the proposed project are located within a 100-year flood zone but as discussed under discussion c) iv, the proposed project would implement standards and requirements of the City of Clovis Municipal Code to mitigate risks related to flood hazards. Refer to discussion a) in Section 3.9, Hazards and Hazardous Materials, regarding the use, transport and storage of hazardous materials for project construction and operation. As a result, the proposed project would not risk the release of pollutants due to project inundation, and a less than significant impact would occur. This topic will not be included in the EIR.

[20] Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center: Search By Address. Website: https://msc.fema.gov/portal/search?AddressQuery#searchresultsanchor (accessed April 14, 2022).

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The proposed project would comply with the City of Clovis UWMP,[21] which promotes programs and policies to manage water supplies, including groundwater, in Clovis. The proposed project would also comply with the SWQMP and a site-specific SWPPP that would ensure water quality control at the project site, as applicable. The proposed project would not conflict or obstruct implementation of a water quality control or sustainable groundwater management plan, and the impact would be less than significant. This topic will not be included in the EIR.

[21] City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed December 6, 2022).

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.11.1 Impact Analysis

a. Would the project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas.

The proposed project would include the construction of a 590-lot residential development for single-family residences. The development would include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses. The project site is surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north.

The proposed project would not construct features that would physically divide an established community or remove means of access that would impair mobility in a community. Therefore, the proposed project would have no impact. This topic will not be included in the EIR.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed land use for the project site, according to the City of Clovis General Plan, is Medium Density Residential.[22] The project site is currently zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. The proposed zoning for the project site is within the Single-Family Planned Residential Development (R-1-PRD) District. The proposed project would require annexation to the City of Clovis and an annexation application would be required to be submitted to the Fresno LAFCo. The Project Applicant would also be required to pay required processing fees for the annexation process. After approval of annexation of the project site into the City of Clovis, the proposed project would be consistent with the City's land use plans.

[22] City of Clovis. 2014. General Plan and Development Code Update PEIR. Land Use Element. Figure LU-2: Land Use Diagram. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Figure-LU-2.pdf (accessed April 14, 2022).

Therefore, the proposed project would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the impact would be less than significant. This topic will not be included in the EIR.

3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

3.12.1 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. The Mineral Resources section of the Clovis General Plan EIR indicates that entire City of Clovis Planning Area is mapped as Mineral Resource Zone 3 (MRZ-3), meaning that the significance of potential mineral deposits cannot be determined from available data. The nearest area designated MRZ-2, where significant mineral resources are known or very likely to be found, is the San Joaquin River Resource Area, located approximately 4.5 miles west of the project site. Furthermore, the General Plan EIR does not identify any known mineral resources sectors or mineral resource extraction operations within or in the vicinity of the project site.[23] Therefore, the proposed project would not result in the loss of any known mineral resources, and the impact would be less than significant. This topic will not be included in the EIR.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less Than Significant Impact. Please refer to the discussion for a). The proposed project would not result in the loss of availability of any known locally important mineral resource recovery sites. Therefore, the proposed project would have a less than significant impact. This topic will not be included in the EIR.

[23] City of Clovis. 2014. General Plan and Development Code Update PEIR. Mineral Resources. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-11-Mineral-Resources.pdf (accessed April 14, 2022).

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.13.1 Impact Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent human sensitivity to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the Community Noise Equivalent Level (CNEL), and the day-night average level (L_{dn}) based on dBA.

CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Clovis.

The City of Clovis addresses noise in the Environmental Safety Element of the General Plan and in the Municipal Code. The Environmental Safety Element provides goals and policies that work to protect residential and other noise-sensitive uses from exposure to harmful or annoying noise levels; to identify maximum acceptable noise levels compatible with various land use designations; and to develop a policy framework necessary to achieve and maintain a healthful noise environment. Applicable Environmental Safety Element policies include the following[24]:

> **Policy 3.1 Land use compatibility:** Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the Noise Level Exposure and Land Use Compatibility Matrix and the city's noise ordinance.
>
> **Policy 3.4 Acoustical study:** Require an acoustical study for proposed projects that have the potential to exceed acceptable noise thresholds or are exposed to existing or future noise levels in excess of the thresholds in the city's noise ordinance.
>
> **Policy 3.5 Site and building design:** Minimize noise impacts by requiring appropriate site, circulation, equipment, and building design, and sound walls, landscaping, and other buffers.
>
> **Policy 3.14 Control sound at the source:** Prioritize using noise mitigation measures to control sound at the source before buffers, soundwalls, and other perimeter measures.

In addition, the City of Clovis addresses construction noise in Section 9.22.080, Noise, of the Municipal Code. Section 9.22.080 (D) sets exterior noise standards as shown in Table 3.B and interior noise standards as shown in Table 3.C.

Section 5.27.604 states that construction noise is permitted by the City of Clovis provided that construction activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. However, between June 1 and September 15, construction may begin at 6:00 a.m. on weekdays.

[24] City of Clovis. 2014. General Plan and Development Code Update PEIR. Environmental Safety Element. Website: https://cityofclovis.com/wp-content/uploads/2018/10/Clovis-General-Plan-2014.pdf (accessed April 21, 2022).

Table 3.B: City of Clovis Maximum Exterior Noise Standards

Noise Zone	Type of Land Use	Allowable Exterior Noise Level (15-Minute L_{eq}), dBA	
		Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
I	Single-, two- or multiple-family residential	55	50
II	Commercial	65	60
III	Residential portions of mixed-use properties	60	50
IV	Industrial or manufacturing	70	70

Source: City of Clovis Municipal Code
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

Table 3.C: City of Clovis Maximum Interior Noise Standards

Noise Zone	Type of Land Use	Allowable Interior Noise Level (15-Minute L_{eq}), dBA	
		Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
I	Residential	45	40
II	Administrative/professional office	50	-
III	Residential portions of mixed-use properties	45	40

Source: City of Clovis Municipal Code
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level

Certain land uses are considered more sensitive to noise than others. Examples of these sensitive land uses include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The nearest noise-sensitive land uses located within the vicinity of the project site includes residential uses located directly adjacent to the project site's eastern boundary.

Short-Term (Construction) Noise Impacts. Project construction would result in short-term noise impacts on nearby sensitive receptors. Maximum construction noise would be short term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase (e.g., demolition, land clearing, grading, excavation, erection) of construction. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during grading and site preparation activities. Table 3.D lists typical construction equipment noise levels (maximum instantaneous noise level [L_{max}]) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the Federal High Administration (FHWA) Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the vicinity of the project site but would no longer occur once construction of the proposed project is completed.

Table 3.D: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
FHWA = Federal Highway Administration
L_{max} = maximum instantaneous sound level

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site, which would incrementally increase noise levels on roads leading to the site. As shown in Table 3.D, there would be a relatively high single-event noise exposure potential at a maximum level of 84 dBA L_{max} with trucks passing at 50 feet.

The second type of short-term noise impact is related to noise generated during grading and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 3.D lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor.

Typical maximum noise levels range up to 87 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

As discussed in Section 1.0, Project Description, the proposed project would be constructed in three Phases, over a period of 33 months, and each phase would include the construction and addition of buildings, working areas and equipment to increase the production capacity of the project site. The closest sensitive receptor to the proposed project includes residential uses located directly adjacent to the project site's eastern boundary.

As discussed above, construction noise is permitted by the City of Clovis provided that construction activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. In addition, Mitigation Measure NOI-1 would be required to limit construction activities to daytime hours and would reduce potential construction period noise impacts for the indicated sensitive receptors to less-than-significant levels.

Mitigation Measure NOI-1 The project contractor shall implement the following measures during construction of the proposed project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities.
- Ensure that all general construction related activities take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. Construction may begin on weekdays at 6:00 a.m. between June 1st and September 15th.

Operational Noise Impacts. The proposed project would include the construction of 590 new single-family residential units in the project site. Motor vehicles with their distinctive noise characteristics are the dominant noise source in the vicinity of the project site. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks),

average traffic speed, and distance from the observer. Implementation of the proposed project would result in new daily trips on local roadways in the vicinity of the project site. The EIR will determine the significance of operational noise impacts of the proposed project.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. No permanent noise sources would be located within the project site that would expose persons to excessive groundborne vibration or noise levels.

As discussed in discussion a) above, implementation of Mitigation Measure NOI-1 would require project construction activities to maintain the greatest possible distance to existing sensitive receptors to reduce potential impacts. Implementation of a buffer between sensitive receptors and construction activities would protect sensitive receptors from excessive groundborne vibration or groundborne noise levels.

Furthermore, the City of Clovis addresses temporary vibrations in Section 9.22.100, Noise, (D) of the Clovis Municipal Code, stating that vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks) are exempt from the provisions of this section.

Therefore, the proposed project would not permanently expose persons within or around the project site to excessive groundborne vibration or noise and the impact would be less than significant. This topic will not be included in the EIR.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The nearest medical center HPs to the project site include the Clovis Community Hospital HP located approximately 3.3 miles southeast of the project site, the Saint Agnes Medical Center HP, located approximately 4.2 miles southwest of the project site, and the Valley Children's Hospital HP located approximately 5.3 miles west of the project site.[25] The nearest airports to the project site include the Fresno Yosemite International Airport, located approximately 6.5 miles southwest of the project site, Fresno Chandler Executive Airport, located approximately 11.7 miles southwest of the project site, and the Sierra Sky Airport, located approximately 9.6 miles southwest of the project site. Each of the airports has an Airport Land Use Compatibility Plan (ALUCP) which guides local jurisdictions in determining appropriate compatible land uses with detailed findings and policies. The City of Clovis General Plan, other City land use plans, and all City land use decisions must be compatible with the adopted ALUCP for Fresno County. The project site is not within 2.0 miles of any public or private airstrip or helipad. Therefore, the proposed project would not result in the exposure of sensitive receptors to the excessive noise levels from aircraft noise sources. The impact would be less than significant. This topic will not be included in the EIR.

[25] California Department of Transportation (Caltrans). 2019. Caltrans HeliPlates. Website: https://heliplates.dot.ca.gov (accessed April 14, 2022).

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

3.14.1 Impact Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The proposed project would consist in the construction of a 590-lot residential development for single-family residences. The proposed project would also include landscaped spaces, park areas, private streets, pedestrian, and utility infrastructure. The proposed project would also construct extensions to North Baron Avenue, Perrin Avenue, and Hammel Avenue to facilitate access to, and circulation around the project site. The project site is located within the Heritage Grove area, a growth area marked for development in the City's General Plan. The proposed project would introduce a residential use that would result in direct population growth. The project site is currently designated Medium Density Residential and zoned within the Exclusive Agricultural Zoning District (AE-20) of Fresno County. The proposed project would require annexation to the City of Clovis and an annexation application would be required to be submitted to the Fresno LAFCo.

Based on the City's current Housing Element,[26] the average number of persons residing in each household in Clovis is estimated to be 2.85 persons. As a result, following construction and occupation of the proposed project, it is estimated that approximately 1,682 residents would live within the proposed 590 residential units within the project site. The Clovis General Plan estimated that at full buildout of the General Plan, approximately 105,700 residents would be living in the areas located within the City's Non-SOI Planning Area (which includes the project site). As a result, the proposed project would not result in unplanned population growth because the City's General Plan identified and planned for the project site to be designated medium density residential. As such, the proposed project would be consistent with planned growth under the City's General Plan. Therefore, the proposed project would not induce substantial unplanned population growth in the City, and the impact would be less than significant. This topic will not be included in the EIR.

[26] City of Clovis. 2016. Fresno Multi-Jurisdictional 2015–2023 Housing Element. April. Website: https://cityofclovis.com/wp-content/uploads/2019/02/Clovis-Housing-Element-1.pdf (accessed September 21, 2022).

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. The proposed project would include the removal of one existing 2,679-square-foot dwelling unit and garage, an existing propane tank, a 2,000-square-foot pole barn, two sheds, and an existing driveway on the project site. The removal of these structures would not displace a substantial number of people or residences from the site. Furthermore, the proposed project would introduce 590 new single-family residences into the project site. Therefore, the proposed project would not displace substantial number of existing people or housing, requiring the construction of replacement housing. The impact would be less than significant. This topic will not be included in the EIR.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

3.15.1 Impact Analysis

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Less Than Significant Impact. The Clovis Fire Department (CFD) would provide fire protection and emergency medical services to the project site. The CFD currently has five operational fire stations in the City, with the closest station, Fire Station 3, located approximately 2.22 miles southwest of the project site. Planned growth under the General Plan would increase calls for fire protection service in Clovis. The proposed project would introduce 590 single-family residences into the project site. After approval of annexation of the project site into the City of Clovis, the proposed project would be consistent with planned growth under the City's General Plan.

The proposed project could result in an incremental increase in the demand for fire protection services. However, the proposed project would be required to comply with all applicable codes for fire safety and emergency access. In addition, the Project Applicant would be required to submit plans to the CFD for review and approval prior to the issuance of building permits to ensure the proposed project would conform to applicable building codes. Furthermore, the Project Applicant would be required to pay a Fire Facility Development Impact Fee, pursuant to Section 4.10.04 of the Clovis Municipal Code, to account for the potential impacts to fire service facilities.

The CFD would continue providing services to the project site and would not require additional firefighters to serve the proposed project. The construction of a new or expanded fire station would not be required. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services. The incremental increase in demand for services is not expected to adversely affect existing responses times to the site or within Clovis. Therefore, construction and operation of the proposed project would have a less than significant impact on fire protection. This topic will not be included in the EIR.

ii. Police protection?

Less Than Significant Impact. The Clovis Police Department (CPD) provides police protection services to the project site. The CPD headquarters are located approximately 3.3 miles southeast of the project site. Currently, CPD has 105 sworn officers, a ratio of 0.88 sworn officers per 1,000 residents. Planned growth under the General Plan would increase calls for police protection service in the City. However, the proposed project has been planned to be developed as medium density residential under the under the City's General Plan.

The proposed project could increase the demand of police protection services. The Project Applicant would be required to pay a Police Department Fee, pursuant to Section 4.11.04 of the Clovis Municipal Code, to account for the potential impacts to police protection services.

The CPD would continue to provide services to the project site and would not require additional officers to serve the project site. The construction of new or expanded police facilities would not be required. Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services and impacts to police protection would represent a less than significant impact. This topic will not be included in the EIR.

iii. Schools?

Less Than Significant Impact. Clovis Unified School District (CUSD) would provide school services to the proposed project. The proposed project involves a residential use that might generate an increase in student demand in the CUSD. The CUSD currently serves approximately 43,000 students from students living in the city of Fresno, Fresno County, and the city of Clovis. Planned growth under the General Plan and the proposed project would increase demand for school services.

The proposed project would increase the demand for school services in the vicinity. After annexation of the project site to the City of Clovis, the Project Applicant would be required to pay appropriate school developer fees at time of building permits to address potential impacts to CUSD services, as set forth in Education Code Section 17620, pursuant to Government Code 65995. Payment of school developer fees will address potential impacts related to constructing school facilities. As a result, the proposed project would not result in a substantial adverse impact associated with the provision of additional school facilities or services and impacts

related to increased demand for school services would represent a less than significant. This topic will not be included in the EIR.

iv. Parks?

Less Than Significant Impact. The proposed project would consist of a 590-lot residential development for single-family residences. The proposed project would also include the construction of a 13,930-square-foot community park, two community pools, and a recreation area. Planned growth under the General Plan would increase the demand for park facilities in the City. However, the proposed project has been planned to be developed as medium-density residential under the under the City's General Plan.

The proposed project could increase the demand for nearby parks and recreational facilities. However, the proposed project would include the construction of a private park and recreation area that would offset the demand for public parks in the vicinity of the project site. Furthermore, the Project Applicant would be required to pay any required development fees, pursuant to Section 3.4.03 of the Clovis Municipal Code, at the time building permits are obtained.

Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional park facilities, and impacts to parks would represent a less than significant impact. This topic will not be included in the EIR.

v. Other public facilities?

Less Than Significant Impact. Planned growth under the General Plan would increase the demand for public facilities in the Clovis. After approval of annexation of the project site into the City of Clovis, the proposed project would be consistent with planned growth under the City's General Plan.

Development of the proposed project could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, the increased demand on public facilities resulting from the proposed project is not expected to require the construction of new, or expansion of existing public facilities in the City. The Project Applicant would be required to pay applicable impact fees (e.g., Library Facilities Development Fee, Chapter 7.8 of the Clovis Municipal Code) to fund public facilities in the City. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The proposed project would consist of a 590-lot residential development for single-family residences. The proposed project would also include the construction of a 13,930-square-foot community park, two community pools, and a recreation area.

The development of the proposed project would result in population growth which could increase the demand for recreational facilities in the vicinity of the project site. However, the proposed project would include the construction of a private park and recreation area that would offset the use of public parks in the vicinity of the project site. Furthermore, after annexation of the project site to the City of Clovis, the Project Applicant would be required to pay applicable park impact fees, pursuant to Section 3.4.03 of the Clovis Municipal Code, at the time building permits are obtained to offset project impact on existing recreational facilities. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. The proposed project would consist of a 590-lot residential development for single-family residences. The proposed project would also include the construction of a 13,930-square-foot community park. The potential environment effects resulting from construction of the community park within the project site is included in the analysis included in this Initial Study. Potential adverse physical effects would result in less than significant impacts. This topic will not be included in the EIR.

3.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☒	☐	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Impact Analysis

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Potentially Significant Impact. The Circulation Element of the City of Clovis General Plan outlines the necessary transportation system standards and infrastructure needed to serve planned land use and development in the City of Clovis. The primary goal for the Circulation Element is to maintain and improve the road network of the City to safely and efficiently move people and goods, to reduce vehicle miles traveled through coordinated land use planning, to facilitate non-automotive travel (i.e., transit, bikes, and walking), and maintain the City's extensive recreational trail system.

The 2016 Clovis Active Transportation Plan (Active Transportation Plan)[27] supports walking, bicycling, transit, and use of other emerging modes of personal transport as alternatives to driving within Clovis, to neighboring cities, and regional destinations. The Active Transportation Plan defines the City's vision for an active transportation network and proposes a framework for implementing projects, programs, and policies to turn the vision into a reality. The Active Transportation Plan also identifies strategies to improve safety and accessibility for active forms of travel such as walking and bicycling.

Vehicular access to the project site would include East Behymer Avenue, and future extensions of North Baron Avenue, Perrin Avenue, and Hammel Avenue. The nearest transit facilities to the project site are located along West Teague Avenue and North Peach Avenue, approximately 0.5 mile south of the project site. The nearest walking and biking trail to the site includes the Dry Creek Trail (located approximately 0.65 mile southwest of the project site), and the Fresno-Clovis Rail Trail (located approximately 1.4 miles west of the project site). The nearest bike lanes to the site are located along East Shepherd Avenue and North Clovis Avenue, both of which are located approximately 0.4 mile south of the project site, respectively.

[27] City of Clovis. 2016. Active Transportation Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/12/Active-Transportation-Plan-Final.pdf (accessed April 26, 2022)

Currently, information about project compliance with existing circulation plans is insufficient to make a determination about significance of potential impacts to circulation systems in the vicinity of the project site. This topic will be included in the EIR.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

Potentially Significant Impact. Senate Bill 743 (SB 743) requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of level of service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the proposed project adds excessive car travel onto our roads, the proposed project may cause a significant transportation impact.

The *CEQA Guidelines* were amended to implement SB 743 by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states:

> [A] lead agency has discretion to evaluate a project's vehicle miles traveled (VMT), including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT and revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the proposed project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

On July 14, 2020, the City of Clovis adopted the Interim Transportation Impact Analysis Guidelines, dated July 14, 2020, pursuant to SB 743 to be effective on July 1, 2020.[28] Consistent with *CEQA Guidelines* Section 15064.3, the City of Clovis has adopted thresholds of significance to determine when a project will have a significant transportation impact based on VMT. The City has developed screening criteria to streamline the analysis for projects that meet certain criteria. A project will require a detailed VMT analysis unless it meets at least one of the City's five screening criteria:

- Projects that generate less than 500 vehicle trips per day (i.e., Single-Family Residential developments with less than 53 dwelling units).

- Local-serving retail projects with areas of 100,000 square feet and below.

[28] City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

- Projects located in a High-Quality Transit Area (HQTA) as defined on Attachment A of the City's Interim Transportation Impact Analysis Guidelines.[29]

- Residential projects in HQTAs with a high proportion of affordable housing.

- Projects located in low VMT areas, as defined on Attachment B of the City's Interim Transportation Impact Analysis Guidelines.[30]

The proposed project does not qualify for a streamlined project VMT analysis under the screening criteria identified by the City. The EIR will provide a detailed analysis of project VMT to determine the significance of potential impacts and, if necessary, identify mitigation measures to reduce potential impacts.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The proposed project would construct a 590-lot residential development for single-family residences. The development would potentially include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses. The proposed project would also result in the construction of extensions of North Baron Avenue, Hammel Avenue, and Perrin Avenue to facilitate access to, and circulation on, the project site. The proposed project would be required to construct all transportation facilities to meet the requirements of the City of Clovis to ensure that design features do not result in hazards to pedestrians, bicyclists, or drivers. In addition, the project site is located in an area surrounded by residential uses and rural residential uses, which are compatible with the proposed residential use. As a result, the proposed project would not increase hazards due to geometric design features or incompatible uses. Therefore, the impact would be less than significant, and this topic will not be included in the EIR.

d. Would the project result in inadequate emergency access?

Less Than Significant Impact. The proposed project would construct a 590-lot residential development for single-family residences. The development would include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses.

Emergency vehicles would have access to the project site via East Behymer Avenue, as well as through future extensions of North Baron Avenue, Perrin Avenue, and Hammel Avenue. Emergency access to the project site, and project vicinity would not be rendered inadequate as a result of the proposed project. The extensions of Perrin Avenue, Hammel Avenue, and North Baron Avenue

[29] City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Attachment A: High Quality Transit Areas Map. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

[30] City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Attachment B: VMT Screening Maps. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

resulting from the proposed project would increase access to emergency services in the vicinity of the project site. Therefore, the impact would be less than significant, and this topic will not be included in the EIR.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated. The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the *CEQA Guidelines*. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which

is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)).

Additional information may also be available from the NAHC's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

AB 52, which became law January 1, 2015, requires that, as part of the CEQA review process, public agencies provide early notice of a project to California Native American Tribes to allow for consultation between the tribe and the public agency. The purpose of AB 52 is to provide the opportunity for public agencies and tribes to consult and consider potential impacts to Tribal Cultural Resources (TCRs), as defined by PRC Section 2107(a). Under AB 52, public agencies shall reach out to California Native American Tribes who have requested to be notified of projects in areas within or which may have been affiliated with their tribal geographic range. Pursuant to AB 52, Big Sandy Rancheria of Western Mono Indians, Cold Springs Rancheria of Mono Indians, Dumna Wo-Wah Tribal Government, Kings River Choinumni Farm Tribe, North Fork Rancheria of Mono Indians, North Valley Yokuts Tribe, Picayune Rancheria of Chuckchansi Indians, Table Mountain Rancheria, Traditional Choinumni Tribe, Tule River Indian Tribe, Wuksache Indian Tribe/Eshom Valley Band were invited to consult. Table Mountain Rancheria sent a response on November 15, 2022, requesting the CRA prepared for the project and did not request any further consultation. No further responses or requests for consultation were received by the City within the 30-day consultation period beginning November 4, 2022, and ending December 3, 2022. As such, AB 52 requirements for the proposed project have been fulfilled. AB 52 consultation request and response letters are included in Appendix A of this Initial Study.

No tribal cultural resources or historical resources were identified on the project site. If any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resource professional. In addition, Mitigation Measures CUL-1 and CUL-2 included above in Section 3.5, Cultural Resources, would apply to the proposed project and would reduce potential impacts to unknown cultural and historical resources to less than significant. This topic will not be included in the EIR.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. The proposed project would require the City's Public Utilities Department to provide water services to the project site. The project would require the construction of a 24-inch water main along Behymer Avenue from Clovis Avenue to Baron Avenue. Additionally, the project would construct a 24-inch main along Baron Avenue, from Behymer Avenue to Perrin Avenue. The proposed improvements would be consistent with the City's Water Master Plan and would be consistent with the City's specifications on materials, depth, and resurfacing.

Electric power and natural gas would be provided by PG&E. The proposed project may require construction of additional electric and gas infrastructure to serve the project site.

Stormwater from the project site would be drained through surface and subsurface drainage infrastructure located along North Baron Avenue, Perrin Avenue, and Hammel Avenue as well as along internal roadways in the project site and redirected towards FMFCD Basin BY, located adjacent to the project site's eastern boundary. A drainage channel would be constructed along the north side of the Perrin Avenue extension to direct stormwater flows from the project site towards Basin BY. Stormwater flows from upstream Basin BY would be directed to the west via the existing aqueduct located under the Enterprise Canal. The proposed project would comply with all FMFCD urban storm water system designs for construction of proposed infrastructure.

As discussed in this Initial Study, the impacts related to construction of the proposed project and associated utilities would not result in significant impacts or would be reduced to less than significant levels through the implementation of various mitigation measures. In the case of air quality and GHG emissions, additional information would be required to identify potential impacts related to construction and operation of required utilities. However, the impacts related to construction of utilities required for the proposed project would result in temporary construction impacts. As a result, impacts related to relocation or construction of new water, sewer and stormwater facilities would be less than significant. This topic will not be included in the EIR.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The City of Clovis Public Utilities Department would supply water to the project site. Based on the City's 2020 Urban Water Management Plan Update, the water supplies under normal conditions for the City from 2025 (50,739 AFY) to 2040 (74,650 AFY) would be sufficient to cover the City's yearly water demand for this period (i.e., demand of 39,737 AF by 2025 and 52,598 AF by 2040).[31]

During a single dry year, projected water supplies for the City from 2025 (37,838 AF/year) to 2040 (53,109 AF)/year) would be sufficient to cover the City's yearly water demand for this period (i.e., 34,272 AF by 2025 and 47,133 AF by 2040).

After a 5-year dry period, water supplies for the City from 2025 (49,743 AFY) to 2040 (73,716 AFY) would be sufficient to cover the City's yearly water demand for this period (i.e., 37,825 AF by 2025 and 50,043 AF by 2040).

After completing the requirements and paying fees for annexation of the project site into the City of Clovis and paying applicable development fees, the proposed project would be consistent with growth under the City's General Plan and would be accounted for in the City's UWMP water demand projections and allocation. Therefore, the proposed project would have sufficient water supplies available to meet future demand during normal, dry and multiple dry years, and the impact would be less than significant. This topic will not be included in the EIR.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. The City of Clovis Public Utilities Department provide wastewater services to the project site. Wastewater from the City of Clovis is treated on the Clovis Wastewater Treatment Plant and on the Fresno-Clovis Regional Wastewater Reclamation Facility. The proposed project would not result in a demand that would exceed the capacity of the wastewater treatment facility. Furthermore, in 2017 the City adopted an update to the Wastewater Collection System

[31] City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed April 22, 2022).

Master Plan[32] which determined that the existing and planned wastewater collection system facilities can accommodate the proposed land uses and anticipated growth under the approved General Plan, including the project site and annexation area. For that reason, the impact would be less than significant. As such, the proposed project would be impacts associated with treatment of wastewater would be less than significant. This topic will not be included in the EIR.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. Solid waste in the City of Clovis is collected by the Public Utilities Department. Solid waste generated within the City is delivered to three landfills: City of Clovis Landfill, American Avenue Disposal Site, and Avenal Regional Landfill.

The American Avenue Disposal Site (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day.[33] The Clovis Landfill (i.e., City Of Clovis Landfill 10-AA-0004) has a remaining capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of April 30, 2047.[34] The Avenal Regional Landfill (i.e., Avenal Regional Landfill 16-AA-0004) has a remaining capacity of 28,900,000 cubic yards, a maximum permitted throughput of 6000 cubic yards, and an estimated closure date of March 31, 2056.[35]

Operation of the proposed project would generate approximately 7,216 pounds of solid waste per day or about 1,317 tons of solid waste per year.[36] Given the available capacity at the landfills, the additional solid waste generated by the proposed project is not anticipated to cause the facility to exceed its daily permitted capacity. As such, the proposed project would be served by a landfill with sufficient capacity to accommodate the proposed project's waste disposal needs, and impacts

32 City of Clovis. 2017. Wastewater Collection System Master Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/10/2017-Draft-Wastewater-Master-Plan.pdf (accessed September 21, 2022).

33 California Department of Resources Recycling and Recovery (CalRecycle). n.d. SWIS Facility/Site Summary. American Avenue Disposal Site (10-AA-0009). Website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/352 (accessed April 19, 2022).

34 California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Summary. City of Clovis Landfill (10-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4529?siteID=347 (accessed April 19, 2022).

35 California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Summary. Avenal Regional Landfill (16-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3755?siteID=898 (accessed April 19, 2022).

36 California Department of Resources Recycling and Recovery (CalRecycle). n.d. Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates (accessed December 12, 2022). CalRecycle estimates that residential uses generate approximately 12.23 pounds of solid waste per day per household. Multiplied by 590 residential units, the total solid waste generated by the proposed project would be 7.215.7. To calculate solid waste generated per year, 7,215.7 was multiplied by 365 days to reach 2,633,730.5 pounds, or 1,316.87 tons per year.

associated with the disposition of solid waste would be less than significant. This topic will not be included in the EIR.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The proposed project would comply, as applicable, with CALGreen, Senate Bill 1383 (SB 1383), and Policies 2.1 through 2.6 of the Public Facilities and Services Element of the City's General Plan, which provides waste management goals and recommendations for reduction and control of solid waste in the City as follows:

> **Policy 2.1: Minimize landfill disposal of solid waste.** Promote solid waste source reduction, reuse, and recycling; composting; and the environmentally-safe transformation of wastes.
>
> **Policy 2.2: Waste diversion rate.** Meet the state's current and future waste diversion goals through the city's recycling and diversion programs.
>
> **Policy 2.3: Expanded recycling.** Increase recycling by commercial, industrial, and multifamily generators.
>
> **Policy 2.4: Green and household hazardous materials waste.** Encourage citywide participation in green waste reduction and household hazardous waste disposal programs.
>
> **Policy 2.5: Clovis landfill.** Maintain at least 15 years of ongoing landfill capacity.
>
> **Policy 2.6: Solid waste facility encroachment.** Protect existing or planned solid waste facilities from encroachment by incompatible land uses that may be allowed through discretionary land use permits or changes in land use or zoning designations.

The proposed project would dispose of waste in accordance with applicable federal, State, and local recycling, reduction, and waste requirements and policies. As a result, the proposed project would not conflict with federal, State, and local management and reduction statutes and regulations related to solid waste, and the impact would be less than significant. This topic will not be included in the EIR.

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Impact Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed project would include the construction of a 590-lot residential development for single-family residences. The development would include landscaped spaces, private recreation, private streets, private pedestrian, public park and public utility uses. The project site is surrounded by agricultural and single-family residential uses to the south, rural residential and agricultural uses to the east, agricultural and commercial uses to the west, and agricultural and rural residential uses to the north.

The proposed project would construct extensions of North Baron Avenue, Perrin Avenue and Hammel Avenue to facilitate access to, and circulation around the project site. Although construction of the roadway extensions would affect circulation of vehicles along Perrin Avenue, Hammel Avenue and North Baron Avenue, these impacts would be temporary and would not substantially or permanently impair emergency evacuation in Clovis.

Therefore, the proposed project would not substantially impair any nearby roadways that may serve as emergency evacuation routes or interfere with any emergency evacuation routes within the City of Clovis or an adopted emergency response plan. Therefore, the impact would be less than significant. This topic will not be included in the EIR.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The project site is located in an area mapped by CAL FIRE as LRA Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a VHFHSZ.[37] The proposed project would comply with City and County fire safety regulations for project construction and operation. Therefore, the proposed project would not exacerbate wildfire risks and potentially expose project occupants to wildfires. The impact would be less than significant. This topic will not be included in the EIR.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The proposed project would require the extension of roads and installation of water and stormwater drainage infrastructure to serve the project site. The proposed project would construct extensions of North Baron Avenue, Hammel Avenue and Perrin Avenue to facilitate access to, and circulation around the project site. As discussed above, the proposed project is not located within a VHFHSZ. Additionally, the proposed project would comply with City and County fire safety regulations for project construction and operation, which would mitigate potential risks associated with construction of roads and installation of water and wastewater infrastructure. As a result, a less than significant impact would occur. This topic will not be included in the EIR.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. As discussed above, the project site is not located within a VHFHSZ. The project site is also a relatively flat area and is not adjacent to any hills. In general, the potential for land sliding or slope failure in the City is very low, and the project site would not be susceptible to landslides. Parts of the project site are located within special flood hazard zones; however, the proposed project would implement standards and design requirements from the City of Clovis Municipal Code Section 8.12, Floodplain Management. Therefore, the proposed project would not expose people or structures to significant post-fire risks, and the impact would be less than significant. This topic will not be included in the EIR.

[37] California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fresno County Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed April 14, 2022).

4.0 LIST OF PREPARERS

LSA
2565 Alluvial Avenue, Suite 172
Clovis, CA 93611
Amy Fischer, Principal in Charge
Kyle Simpson, Project Manager
Nathaly Granda Bustamante, Assistant Environmental Planner

157 Park Place
Point Richmond, CA 94801
Patty Linder, Graphics/Document Production

285 South Street, Suite P
San Luis Obispo, CA 93401
Kerrie Collison, Senior Cultural Resources Manager

Argonaut Ecological Consulting
2377 Gold Meadow Way, Suite 100
Gold River, CA 95670
Kathy Kinsland, CISEC, QSP, TOR-QISP, Biological Resources Regulatory Specialist/Senior Scientist

Peak & Associates
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762
Melinda A. Peak, Senior Historian/Archeologist

This page intentionally left blank

5.0 REFERENCES

Argonaut Ecological Consulting. 2022. Biological Resources Assessment – Tentative Tract 6343 and City of Clovis Annexation Area. September 26.

California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April.

California Department of Fish and Game. 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California. November 8.

_____. 2012. Staff Report on Burrowing Owl Mitigation. March 7.

California Department of Forestry and Fire Protection (CAL FIRE). 2007. Fresno County Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed April 14, 2022).

California Department of Resources Recycling and Recovery (CalRecycle). SWIS Facility/Site Summary. American Avenue Disposal Site (10-AA-0009). Website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/352, (accessed April 19, 2022).

California Department of Toxic Substances Control (DTSC). 2007. EnviroStor. Website: https://www.envirostor. dtsc.ca.gov/public/map/?myaddress=clovis (accessed April 14, 2022).

California Department of Transportation (Caltrans). 2019. Caltrans HeliPlates. Website: https://heliplates.dot.ca.gov (accessed April 14, 2022).

_____. n.d. State Scenic Highways. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways (accessed May 12, 2022).

California Environmental Protection Agency (CalEPA). 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List. Website: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a (accessed April 14, 2022).

California Department of Resources Recycling and Recovery (CalRecycle). Year?? Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates (accessed April 19, 2022).

_____. n.d. SWIS Facility/Site Summary. City of Clovis Landfill (10-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4529?siteID=347 (accessed April 19, 2022).

_____. n.d. SWIS Facility/Site Summary. Avenal Regional Landfill (16-AA-0004). Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3755?siteID=898 (accessed April 19, 2022).

City of Clovis. 2014. General Plan and Development Code Update PEIR. Website: https://cityofclovis.com/planning-and-development/planning/master-plans/general-plan/environmental-impact-report/ (accessed December 8, 2022).

City of Clovis. 2016. Active Transportation Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/12/Active-Transportation-Plan-Final.pdf (accessed April 26, 2022)

City of Clovis. 2016. Fresno Multi-Jurisdictional 2015–2023 Housing Element. Website: https://cityofclovis.com/wp-content/uploads/2019/02/Clovis-Housing-Element-1.pdf (accessed September 21, 2022). April.

City of Clovis. 2017. Wastewater Collection System Master Plan. Website: https://cityofclovis.com/wp-content/uploads/2018/10/2017-Draft-Wastewater-Master-Plan.pdf (accessed September 21, 2022).

City of Clovis. 2020. Interim Transportation Impact Analysis Guidelines. Website: https://cityofclovis.com/wp-content/uploads/2020/10/PDS-SB-743-ATT-2-Interim-Transportation-Impact-Analysis-Guidelines.pdf (accessed April 22, 2022).

City of Clovis. 2021. Urban Water Management Plan 2020 Update. July 12. Website: https://cityofclovis.com/wp-content/uploads/2021/08/2020-UWMP-Adopted-July-2021_reduced.pdf (accessed December 6, 2022).

Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center: Search By Address. Website: https://msc.fema.gov/portal/search?AddressQuery#searchresultsanchor (accessed April 14, 2022).

Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model.

Fresno Metropolitan Flood Control District (FMFCD). 2020. Fresno-Clovis Storm Water Quality Management Program: FY 2019-20 Annual Report. October 1. Website: http://www.fresnofloodcontrol.org/wp-content/uploads/2020/09/2019-20-Annual-Report-FINAL.pdf (accessed December 6, 2022).

LSA Associates, Inc. 2022. Farmland Impact Assessment, Heritage Grove SB 2 Grant Technical Studies Project, City of Clovis, California. February 2022.

Natural Resources Conservation Service. n.d. Web Soil Survey. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed April 14, 2022).

Peak & Associates, Inc. 2022. Cultural Resource Assessment for the Tentative Tract Map 6343 and City of Clovis Annexation Area, County of Fresno, California. September 21.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015a. Guidance for Assessing and Mitigating Air Quality Impacts.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015b. Air Quality Thresholds of Significance – Criteria Pollutants. Website: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (accessed April 14, 2022).

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2016. 2016 Plan for the 2008 8-Hour Ozone Standard. Website: https://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed April 14, 2022).

Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. May 31.

This page intentionally left blank

APPENDIX A

AB 52 CONSULTATION REQUEST AND RESPONSE LETTERS

This page intentionally left blank

City of Clovis

Department of Planning and Development Services

CITY HALL . 1033 FIFTH STREET . CLOVIS, CA 93612

Native American Tribal Consultation Request

Date: 11/4/2022

Project Title: TM6343 et al

Local Government/Lead Agency: City of Clovis Planning Division

Project Manager: Lily Cha-Haydostian, Senior Planner Phone: (559) 324-2335

Address: 1033 Fifth Street City: Clovis St: CA Zip: 93612

Email: lilyc@cityofclovis.com Fax: (559) 324-2844

Project Location: See attached map

Project Proponent: Wilson Premier Homes, Inc. (Applicant)
7550 N. Palm Avenue, Suite #102
Fresno, CA 93711

Local Action Type:

- [ ] General Plan Amendment
- [ ] Specific Plan Amendment
- [X] Project Subject to AB52
- [ ] Pre-Planning Outreach

Project Description:
RO305; a request for the annexation of 246 acres of property located southwest of Behymer and Sunnyside Avenues.

GPA2021-003; a request to redesignate 71.54 acres of property from the the City of Clovis Medium Density to Medium High Density

R2021-006; a request to prezone 71.54 acres of property to the City of Clovis R-1-PRD Zone District

TM6343; a request to subdivide 71.54 acres of property to 590 lots

PDP2021-001; a request for the approval of a planned development permit

We request that you respond within 30 days per the requirements of Assembly Bill 52 (AB 52) [Public Resources Code Section 5097.94] and also thank you in advance for your participation in the review process for this project. If you need additional materials or have any questions, please feel free to contact the Project Manager listed above.

This page intentionally left blank

TABLE MOUNTAIN RANCHERIA
CULTURAL RESOURCES DEPARTMENT

Brenda D. Lavell
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Jenna Gosselaar
Tribal Secretary/Treasurer

Richard L. Jones
Tribal Council Member-At-Large

Michelle Heredia-Cordova
Tribal Council Member-At-Large

"Preserving our past, Protecting our future"

Robert Pennell
Cultural Resources Department Director

Office (559) 325-0351
Fax (559) 325-0394

23736 Sky Harbour Road

P.O. Box 410

Friant, California 93626

Office (559) 316-6330

Fax (559) 822-6340

CERTIFIED 2768 6008

November 15, 2022

City of Clovis
Lily Cha-Haydostian, Senior Planner
1033 Fifth Street
Clovis, Ca. 93612

RE: TM6343 et al, General Plan Amendment and Project Subject to AB52

Dear: Lily Cha-Haydostian

Table Mountain Rancheria is responding to your letter dated, November 04, 2022, regarding, proposed TM6343 et al, General Plan Amendment and Project Subject to AB52. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

If you have already conducted a record search, please provide Table Mountain Rancheria with copies of any cultural resource report you may have.

At this time, please contact our office at (559) 325-0351 or rpennell@tmr.org to coordinate a discussion and meeting date regarding your project.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director

This page intentionally left blank

APPENDIX B

WATER INFRASTRUCTURE INVESTIGATION

This page intentionally left blank

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

455 W
Clovis, CA 93611-0242
Tel: (559) 449-2700
Fax: (559) 449-2715
www.provostandpritchard.com

Memorandum

To:	Gene Abella, PE, City of Clovis
From:	Nick Jacobson, PE
Subject:	Water Infrastructure Investigation for Tentative Tract Map 6343
Date:	December 19, 2022

Provost and Pritchard Consulting Group ("P&P") has prepared this memorandum summarizing the findings of our investigation into the water system infrastructure required to serve a proposed single-family residential development generally located along the east side of Clovis Avenue between Perrin and Behymer Avenues.

Project Information

It is our understanding that Tentative Tract Map (Tract) 6343 (Project) will have a land use designation of medium high density residential (7.1 to 15.0 dwelling units per acre [du/ac]), which differs from the original designation of medium density (4.1 to 7.0 du/ac), originally considered for this area in the City of Clovis Water Master Plan (WMP) Update – Phase III (Provost & Pritchard, 2018). The Project covers an area of approximately 71.54 gross acres (64.36 net acres), encompassing two parcels entirely, and a portion of a third parcel (APNs 556-040-08, 07, and 556-030-14) within the Northwest Village planning area.

There is no existing infrastructure adjacent to the project footprint. It is understood that before the Project is built several master planned water mains will be constructed near or adjacent to the Project as part of the buildout of Tract 6200 including:

- *a 12-inch main in Marion Avenue from Perrin Avenue to Heirloom (Pryor) Avenue*
- *a 12-inch main in Heirloom (Pryor) Avenue from Marion Avenue to Sunnyside Avenue*
- *a 16-inch main in Baron Avenue from Clovis Avenue to Perrin Avenue*

Additionally, an added transmission water main is anticipated with Tract 6205, east of Sunnyside Avenue but it is not anticipated to be constructed prior to Tract 6343:

- *a 12-inch main in Heirloom (Pryor) Avenue from Sunnyside Avenue and continuing south through the Tract, to Shepherd Avenue.*

There are master planned water mains that will be constructed as part of the Tract 6343 improvements, including:

- *a 24-inch main in Behymer Avenue from the west limits of Tract 6343 to Baron Avenue*
- *a 24-inch main in Baron Avenue from Behymer Avenue to Perrin Avenue*

Mains internal to and along the frontage of Tract 6343 will be constructed as part of the Project. It is anticipated that the 12-inch main in Clovis Avenue from Baron Way to Behymer Avenue along with the portion of the 24-inch mains in Behymer Avenue between Baron Way and Clovis Avenue not along the frontage of Tract 6343 may also be constructed with this Project. Collectively these mains would connect to infrastructure associated with Tract 6200 to the southeast of the Project. Collectively, these existing and planned facilities convey or will convey water from the surface water treatment plant which is located approximately 5.5 miles to the southeast of the Project. This portion of Clovis' potable water system is within the pressure zone called "Zone 2." Figure 1 shows the existing and proposed infrastructure in the area.

The Project straddles the Kings River service area boundary for Fresno Irrigation District (FID) therefore approximately half of the Project is within the Kings River service area and the remaining half is outside the Kings River service area for FID. The portion of the project within the service area has access to water from the Kings River as its source of supply, while the portion outside of the service area does not. The existing project site consists of a residential dwelling, fallow land, and various row crop plantings. The proposed use will consist of a new 590-unit single family residential development on 71.54 gross acres

Assumptions

The following assumptions apply to this investigation:

- The City requires a minimum of two points of connection to the existing water system.
- Developer is responsible for sizing all water mains and other water related infrastructure internal to the Project.
- The Clovis Fire Department (CFD) requires a minimum fire flow of 1,800 gallons per minute (gpm) and a minimum residual pressure of 35 pounds per square inch (psi), per CFD Standard #2.3.
- Existing infrastructure sizes based on GIS data from the City (see Figure 1).
- Recycled water will not be applied to public landscaping surrounding the Project.
- Infrastructure conditioned on Tract 6200 will be constructed prior to development of Tract 6343.
- Tract 6200 is modeled as medium density residential.
- Tract 6343 is modeled as medium high density residential (MHDR).
- Existing and proposed Water system demands will be based on unit demand from the *Water Master Plan Update Phase III - Facilities Plan* (Provost & Pritchard, 2018).
- The analysis will reflect the demands associated with existing developments in the area based on actual land use; undeveloped areas are modeled utilizing land use designations specified in the General Plan. Proposed demands will be modeled using the above referenced land use designations rather than that shown in the General Plan.
- Figure 1 shows the existing and master planned water mains and facilities in the vicinity of the Project, including those conditioned with Tract 6200 shown as existing.
- For Alternative 1 the analysis assumed the transmission grid main infrastructure shown as existing and future (See Figures 2, and 3) as well as the proposed tank, booster pump

station, and tank fill valve, have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort.

- For Alternative 2 the analysis assumed the transmission grid main infrastructure shown as existing and future (See Figures 4 and 5) have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort.
- For Alternative 3 the analysis assumed the transmission grid main infrastructure shown as existing and future (See Figures 6 and 7), have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort.
- For Alternative 4, (See Figures 8 and 9), the analysis assumed the transmission grid main infrastructure shown as existing have been constructed and are operational or are under construction and are assumed to be operational for the purposes of this modeling effort. No future infrastructure is assumed.
- The system is operating with all valves open.
- System velocities should not exceed 10 feet per second (fps).

This investigation will include analysis of whether the existing (or soon to be existing) water system, as described above and shown on the attached figures, will be sufficient to provide up to maximum day demand and also meet Maximum Day Demand (MDD) plus Fire Flow (MDD+FF) demands per the WMP requirements both with and without the City's Surface Water Treatment Plant (SWTP) in operation. The analyses without the SWTP are modeled with a reduced demand consistent with that historically experienced in the autumn months when the SWTP is not operational due to canal maintenance activities.

Water Demand

Potable water demands for the Project were estimated using land-use-based unit water demand factors from the WMP. Table LU-2 in the Land Use Element of the City General Plan (GP) states that MHDR has an allowable density ranging from 7.1 – 15.0 du/ac. The proposed use equates to a dwelling unit density of approximately 8.25 du/ac, consistent with MHDR land use. A separate water supply assessment (WSA) was prepared by P&P in September 2022. The WSA estimated water demands for the Project. For consistency, the demand estimates stated in the WSA were used for this analysis. For specifics surrounding Project water demands refer to the WSA.

Infrastructure

The Project is comprised of three (3) parcels of mostly row crop agricultural land a residential dwelling generally located along the east side of Clovis Avenue between Perrin and Behymer Avenues. Because of the limited existing backbone infrastructure in the area, this development will depend on the construction of infrastructure planned to be built with Tract 6200. The other transmission mains near the Project are understood to be existing, as shown on Figure 1. Design

of the required water mains internal to the Project will be the responsibility of the Project developer.

Water Supply

Urbanization within Clovis occurs both inside and outside the Kings River service area for Fresno Irrigation District (FID), therefore not all lands have access to this water source. Lands generally located south and west of the Enterprise Canal are within the Kings River service area and as such are entitled to an average annual allotment of approximately 2.24 acre-feet per acre (AF/ac). The MHDR land use has a unit demand greater than the 2.24 AF/ac supply available. The City adopted an ordinance requiring new development with demands exceeding the allotment to pay fees, so the City can acquire additional water supply to serve the development. The Project will need to pay for supplies for demands over and above the FID available supply for the Project area within FID[1] and for all demands for the Project area outside FID, as shown below. For additional details on water supply for the Project, refer to the WSA (Provost & Pritchard, September 2022) prepared for the Project.

Table 1. Reconciliation of Surface Water Supply and Demand

Land Use Category	Area (ac)	Land Use Demand Factor (AFY/ac)	Annual Average Demand (AFY)	FID Entitlement (AFY)	Additional Supply Required (AFY)
Proposed					
Medium-High Density Residential – within FID	38.6	3.3	127.4	86.5	(40.9)
Medium-High Density Residential – outside FID	32.9	3.3	108.6	0.0	(108.6)
Proposed Total	71.5	3.3	236.0	86.5	(149.5)

Evaluation

The City has requested an investigation, utilizing the current City hydraulic model, to determine whether the proposed infrastructure in the vicinity of the Project (Figure 1) will provide adequate service during MDD and MDD+FF for several infrastructure scenarios including:

- Alternative 1: with 3.5 million gallons of storage capacity at the T-9 site[2].
- Alternative 2: with no storage capacity at the T-9 site and construction of water mains south of Shepherd Avenue and along Sunnyside and Nees Avenues, connecting to the existing water system in Nees Avenue (WMP designated mains P-3, P-4, and P-7).
- Alternative 3: with no storage capacity at the T-9 site and construction of water mains south of Shepherd Avenue and along Sunnyside and Teague Avenues, connecting to the existing water system at Fowler Avenue (WMP designated mains P-3, and P-6).

[1] Approximately 54 percent of the Project Area lies within the FID King River service area boundary.
[2] The T-9 water storage tank and booster pump site is at the northwest corner of Perrin and Sunnyside Avenues.

- Alternative 4: no storage capacity at the T-9 site, and only utilizing existing infrastructure and previously constructed infrastructure associated with Tract 6200.

As shown on Figure 1, infrastructure associated with Tract 6343, was modeled with 8-inch mains internal to the Project. Also, the results of this evaluation rely on the infrastructure that has been conditioned on Tract 6200 being constructed and operational.

Maximum Day Demand Analyses

Alternative 1

With an Operational SWTP

The hydraulic model analysis results with the SWTP operational indicates no pressure deficiencies internal to the Project. Minimum pressures during the MDD scenario are all above 40 psi.

Without an Operational SWTP

The hydraulic model analysis results with the SWTP not operational indicates no pressure deficiencies in Tracts 6343. The model results did show a portion of the system with minimum pressures below 40 psi in the Harlan Ranch portion of the system, mainly east of Sanders Avenue. Minimum pressures in Harlan Ranch dropped in places to approximately 31 psi during the peak demand hour of the MDD scenario without the SWTP operational. As stated above, while typically during MDD the distribution system pressures should be over 40 psi, the results of the analysis are not below minimum required pressure of the system of 20 psi (Title 22 requirement). The deficiencies identified in the model only last for a short duration during the morning hour from 6:00 AM until about 7:00 AM. Average pressures throughout the time duration in this scenario were all over 40 psi for the analysis.

Alternative 2

With an Operational SWTP

The hydraulic model analysis results with the SWTP operational indicates no pressure deficiencies internal to the Project. Minimum pressures during the MDD scenario are all above 40 psi.

Without an Operational SWTP

The hydraulic model analysis results with the SWTP not operational indicates no pressure deficiencies in Tracts 6343. The model results did show a portion of the system with minimum pressures below 40 psi in the Harlan Ranch portion of the system. The area that shows minimum pressures below 40 psi has a larger footprint than the area identified in Alternative 1. For Alternative 2, the general area showing minimum pressures below 40 psi is in Harlan Ranch east of Locan Avenue. Minimum pressures in this area dropped in places to approximately 27 psi during the peak demand hours of the MDD scenario without the SWTP operational. As stated above, while typically during MDD the distribution system pressures should be over 40 psi, the results of the analysis are not below minimum required 20 psi pressure (Title 22) of the system.

The deficiencies identified in the model only last for a short duration during the morning hours from 5:45 AM until about 8:00 AM. Average pressures throughout the time duration in this scenario were all over 40 psi for the analysis.

Alternative 3

With an Operational SWTP

The hydraulic model analysis results with the SWTP operational indicates no pressure deficiencies internal to the Project. System wide, minimum pressures during the MDD scenario are all above 40 psi.

Without an Operational SWTP

The hydraulic model analysis results with the SWTP not operational indicates no pressure deficiencies in Tracts 6343. The model results did show a portion of the system with minimum pressures below 40 psi in the Harlan Ranch portion of the system. The area that shows minimum pressures below 40 psi has a larger footprint than the area identified in Alternative 1. For Alternative 3, the general area showing minimum pressures below 40 psi is in Harlan Ranch east of Locan Avenue, similar to the footprint identified in Alternative 2. Minimum pressures in this area dropped in places to approximately 27 psi during the peak demand hours of the MDD scenario without the SWTP operational. As stated above, while typically during MDD the distribution system pressures should be over 40 psi, the results of the analysis are not below minimum required pressure of the system. The deficiencies identified in the model only last for a short duration during the morning hours from 5:45 AM until about 8:00 AM. Average pressures throughout the time duration in this scenario were all over 40 psi for the analysis.

Maximum Day Demand Plus Fire Flow

Alternative 1

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 58 psi (see Figure 2). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,365 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 64 psi (see Figure 3). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,365 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 1 because this analysis assumes that the SWTP is not operational during a lower demand period described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Alternative 2

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 54 psi (see Figure 4). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,366 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 58 psi (see Figure 5). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,360 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 2 because this analysis assumes that the SWTP is not operational during a lower demand period described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Alternative 3

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 56 psi (see Figure 6). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,366 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 60 psi (see Figure 7). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,356 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 3 because this analysis assumes that the SWTP is not operational during a lower demand period described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Alternative 4

With an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures

internal to the Project range from approximately 35 psi to approximately 52 psi (see Figure 8). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 3,970 gpm.

Without an Operational SWTP

The minimum pressure required during fire flow conditions (1,800 gpm) is 35 psi with a maximum velocity of 10 fps. The MDD+FF hydraulic model analysis results show available pressures internal to the Project range from approximately 35 psi to approximately 58 psi (see Figure 9). Available fire flow at the hydrants internal to the Project ranged from 1,920 gpm to as much as 4,350 gpm. The available pressures are slightly higher under this scenario than when the SWTP is online under alternative 4 because this analysis assumes that the SWTP is not operational during a lower demand period as described on Page 2. Should the SWTP go offline during a typically high demand period like summer, the analysis would yield different results with potential for pressure drops below 20 psi.

Conclusion

The modeling analysis indicates that the proposed infrastructure within the Project, as shown on the attached figures, along with the proposed connections points should be able to receive adequate flow and pressure during an MDD scenario and during an MDD+FF scenario with the SWTP operational. With the SWTP not in operation, the analysis shows that the system should be able to deliver MDD and MDD+FF scenarios as well. The City should note that the ability to deliver water to satisfy fire flow requirements without the aid of the SWTP is applicable to lower demand periods such as those experience during the autumn timeframe.

Based on information collected during this investigation and the City's adherence to recommendations from prior water supply planning efforts, the existing and planned water distribution system and recommended connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. The Project may proceed with the existing infrastructure and the planned infrastructure along the Project frontage as shown in Alternative 4. Additional master planned infrastructure, discussed in Alternatives 1, 2 and 3 are not required to deliver adequate flow and provide sufficient pressure to the Project, but are recommended, in part, to provide system redundancy to the Project area.

Serving this Project should not negatively impact the City's ability to provide a supply and delivery of water to reasonably foreseeable users within the City assuming adherence to recommendations from prior water resources planning efforts. However, to understand the cumulative impacts to supplies and other major water infrastructure, the City should be tracking changes in demand as part of the development process in order to determine when projects with greater demand are offset by projects with demands lower than originally planned.

Respectfully,

Nicholas Jacobson

Enclosures:

- Figure 1 – Potable Water Infrastructure
- Figure 2 – Alternative 1 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 3 – Alternative 1 – Maximum Day Demand plus Fire Flow without Operational SWTP
- Figure 4 – Alternative 2 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 5 – Alternative 2 – Maximum Day Demand plus Fire Flow without Operational SWTP
- Figure 6 – Alternative 3 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 7 – Alternative 3 – Maximum Day Demand plus Fire Flow without Operational SWTP
- Figure 8 – Alternative 4 – Maximum Day Demand plus Fire Flow with Operational SWTP
- Figure 9 – Alternative 4 – Maximum Day Demand plus Fire Flow without Operational SWTP

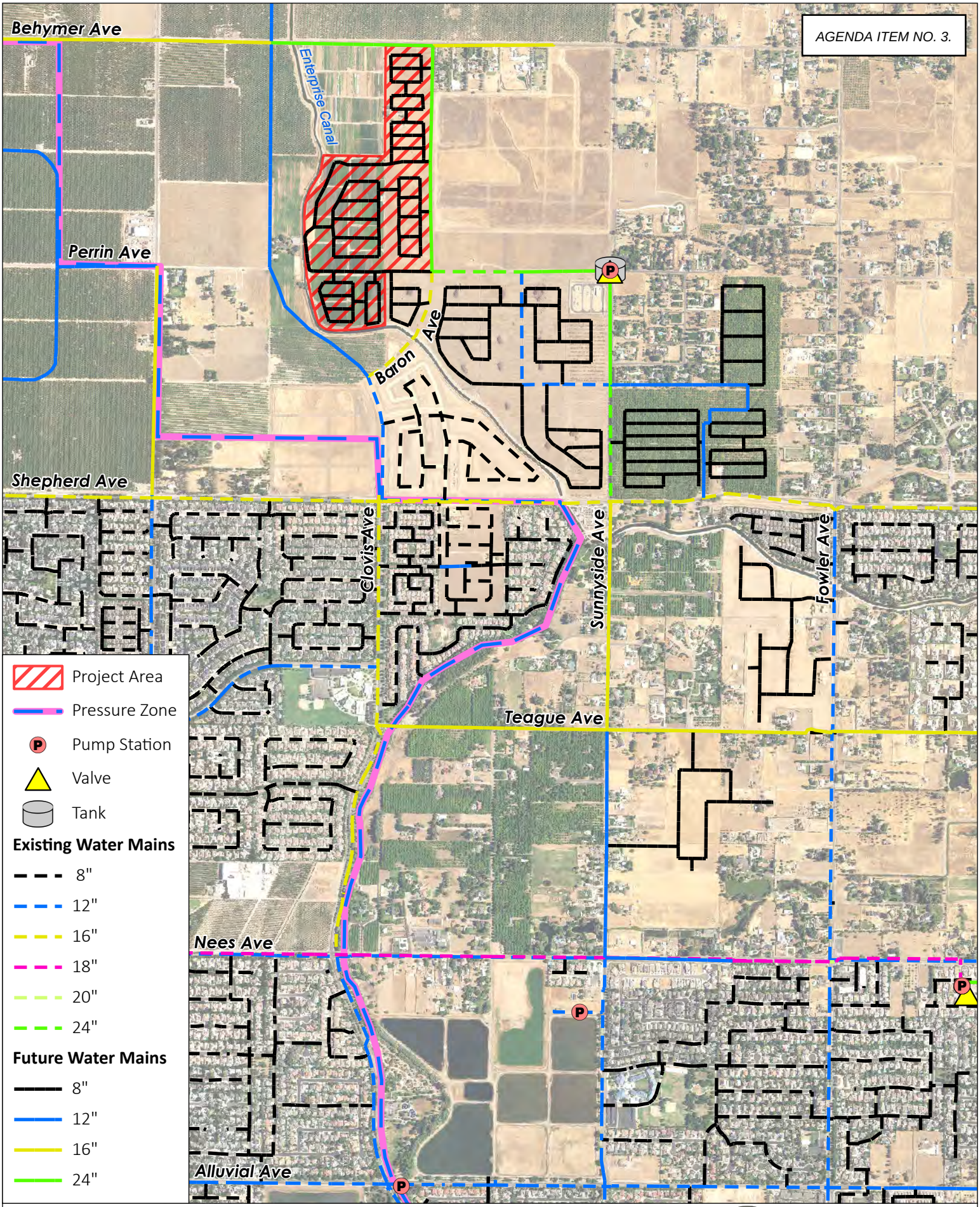


Figure 1: Existing Infrastructure

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

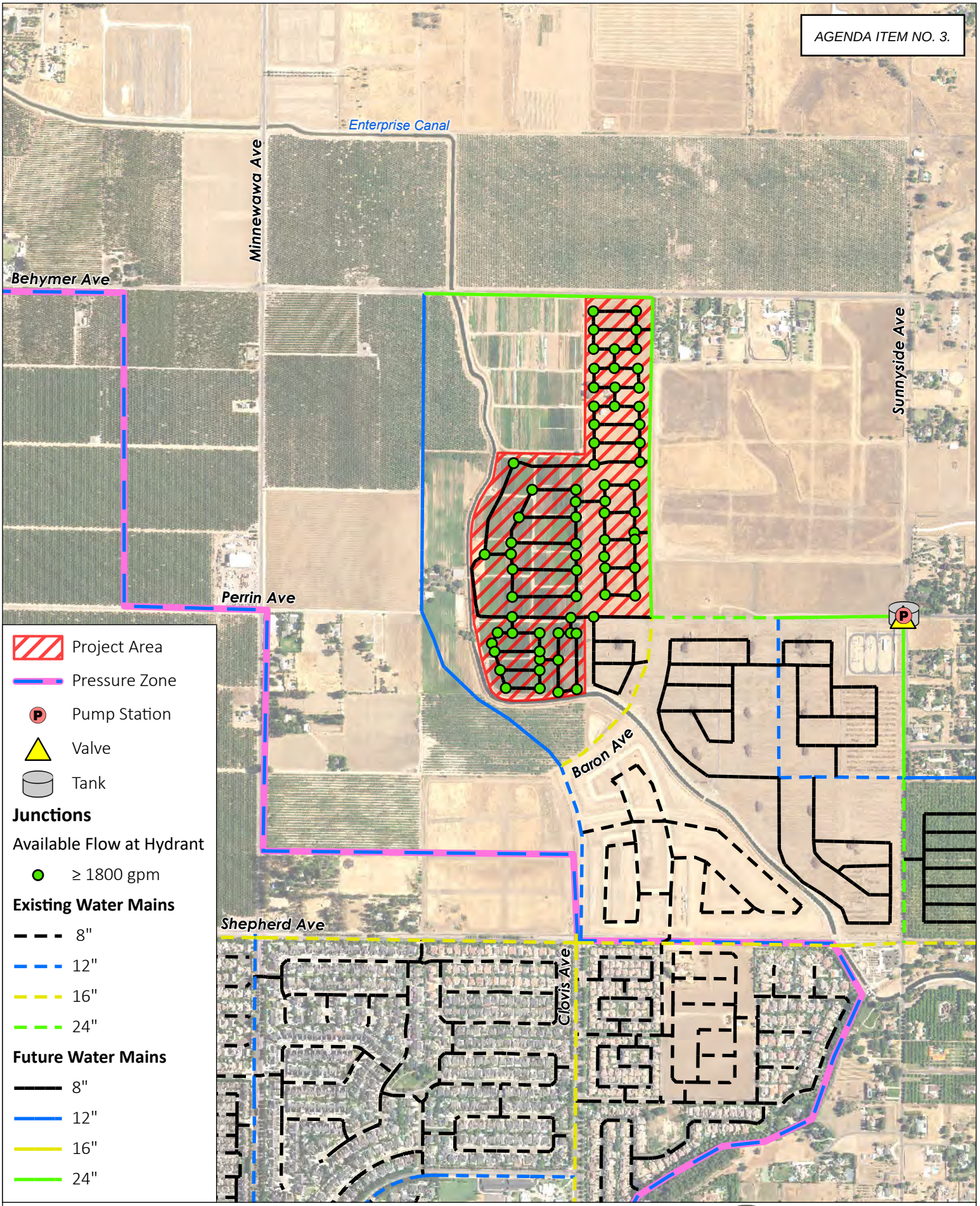


Figure 2: Alternative 1 Maximum Day Demand Plus Fire Flow with Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

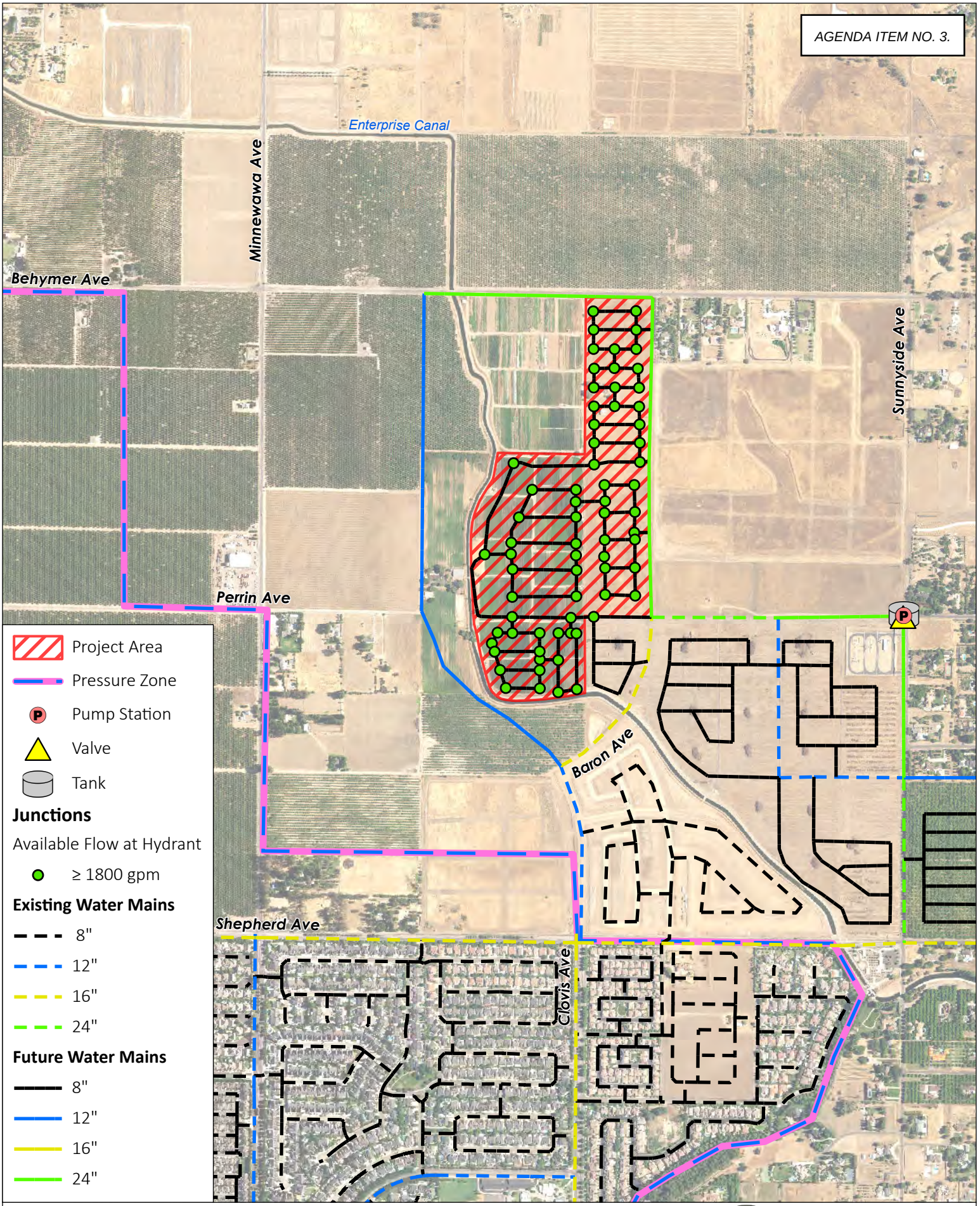


Figure 3: Alternative 1 Maximum Day Demand Plus Fire Flow without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

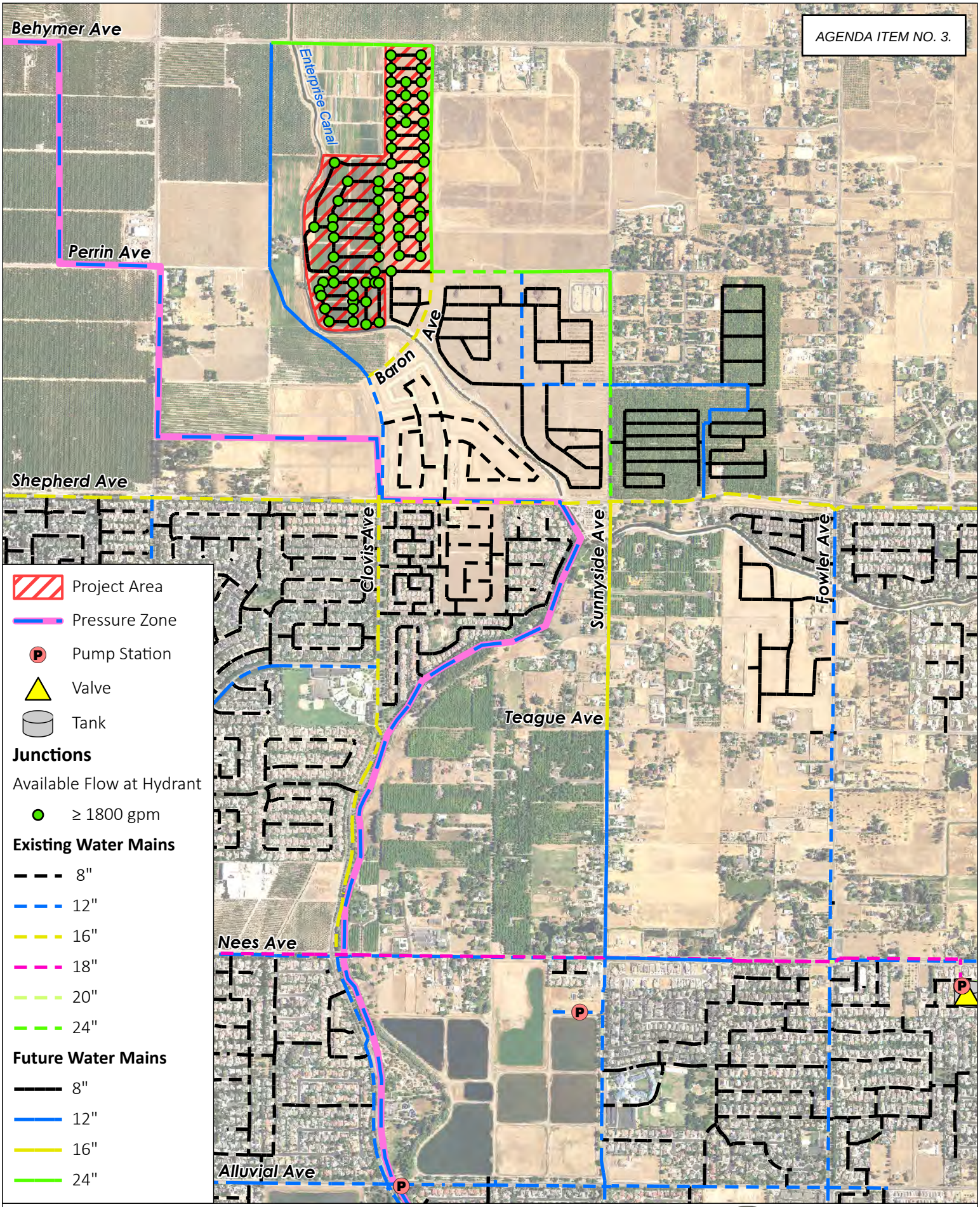


Figure 4: Alternative 2 Maximum Day Demand Plus Fire Flow with Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

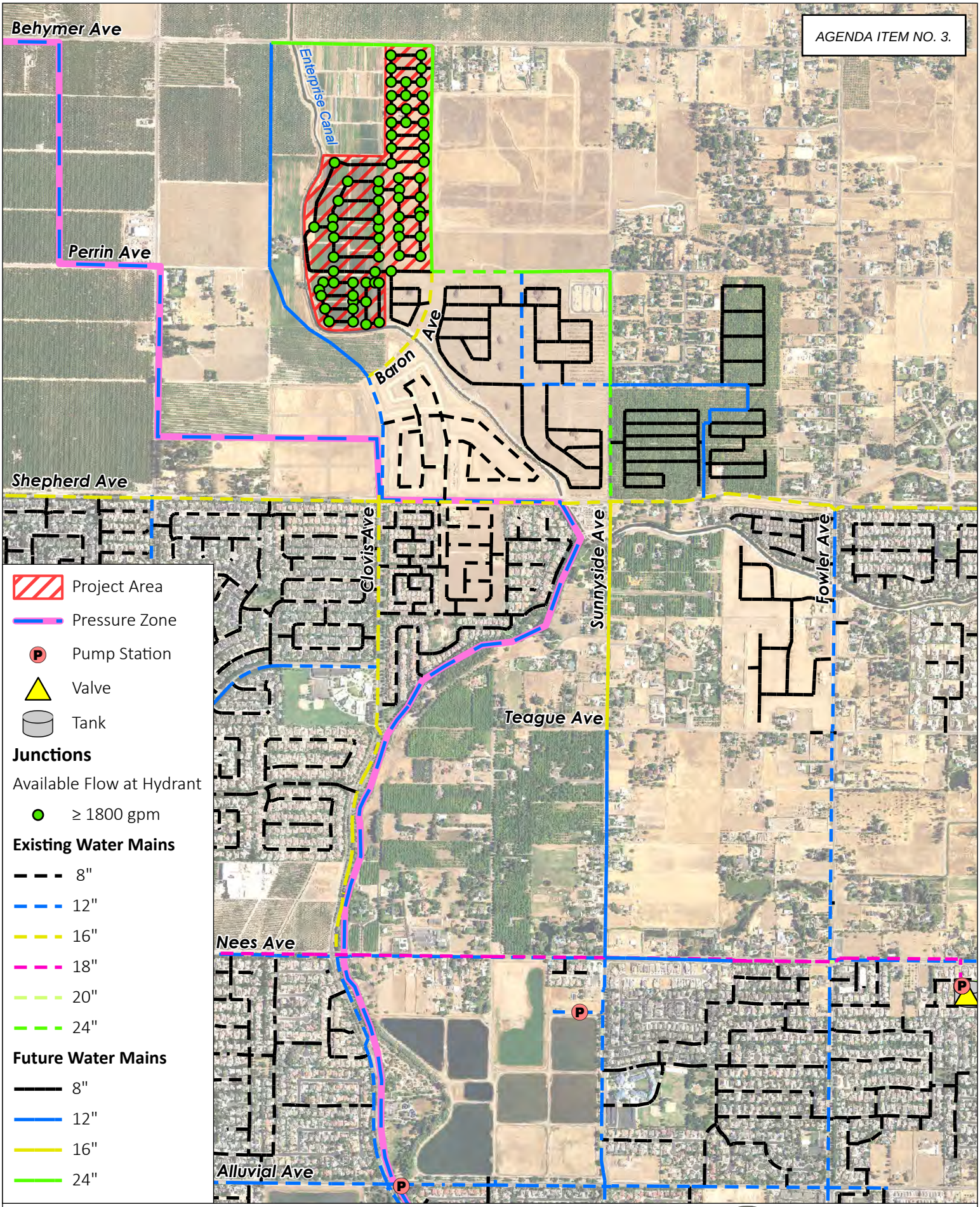


Figure 5: Alternative 2 Maximum Day Demand Plus Fire Flow without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

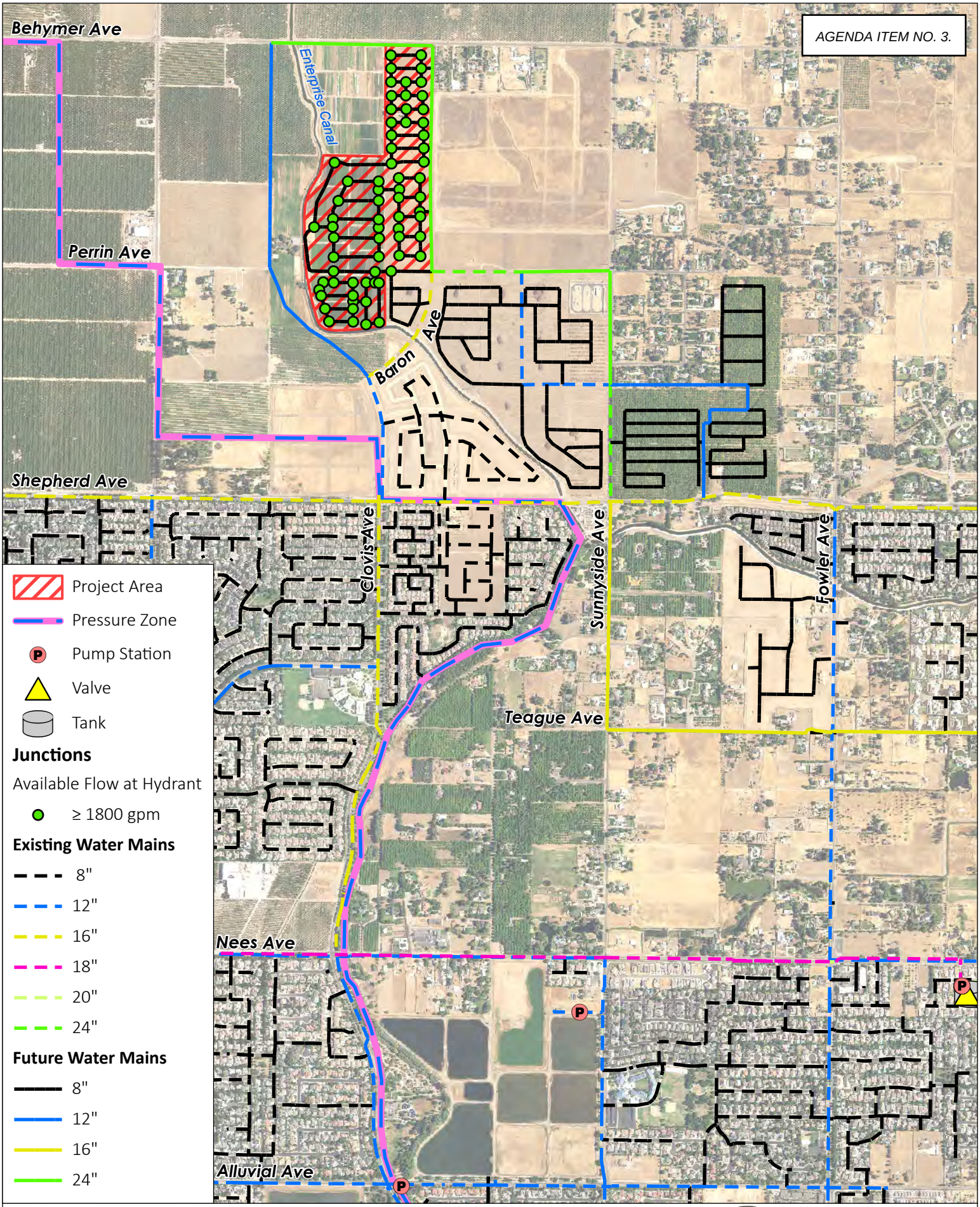


Figure 6: Alternative 3 Maximum Day Demand Plus Fire Flow with Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

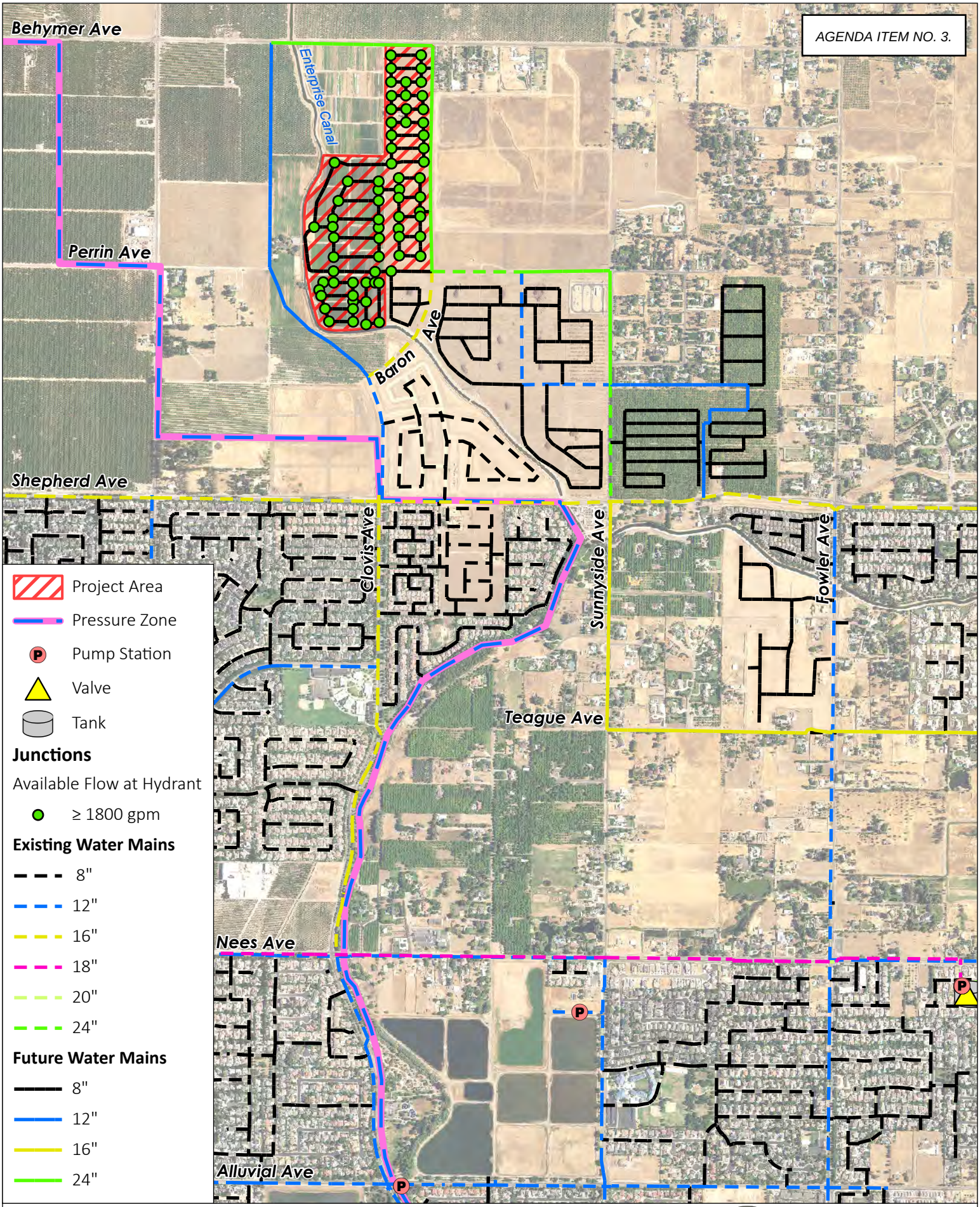


Figure 7: Alternative 3 Maximum Day Demand Plus Fire Flow without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

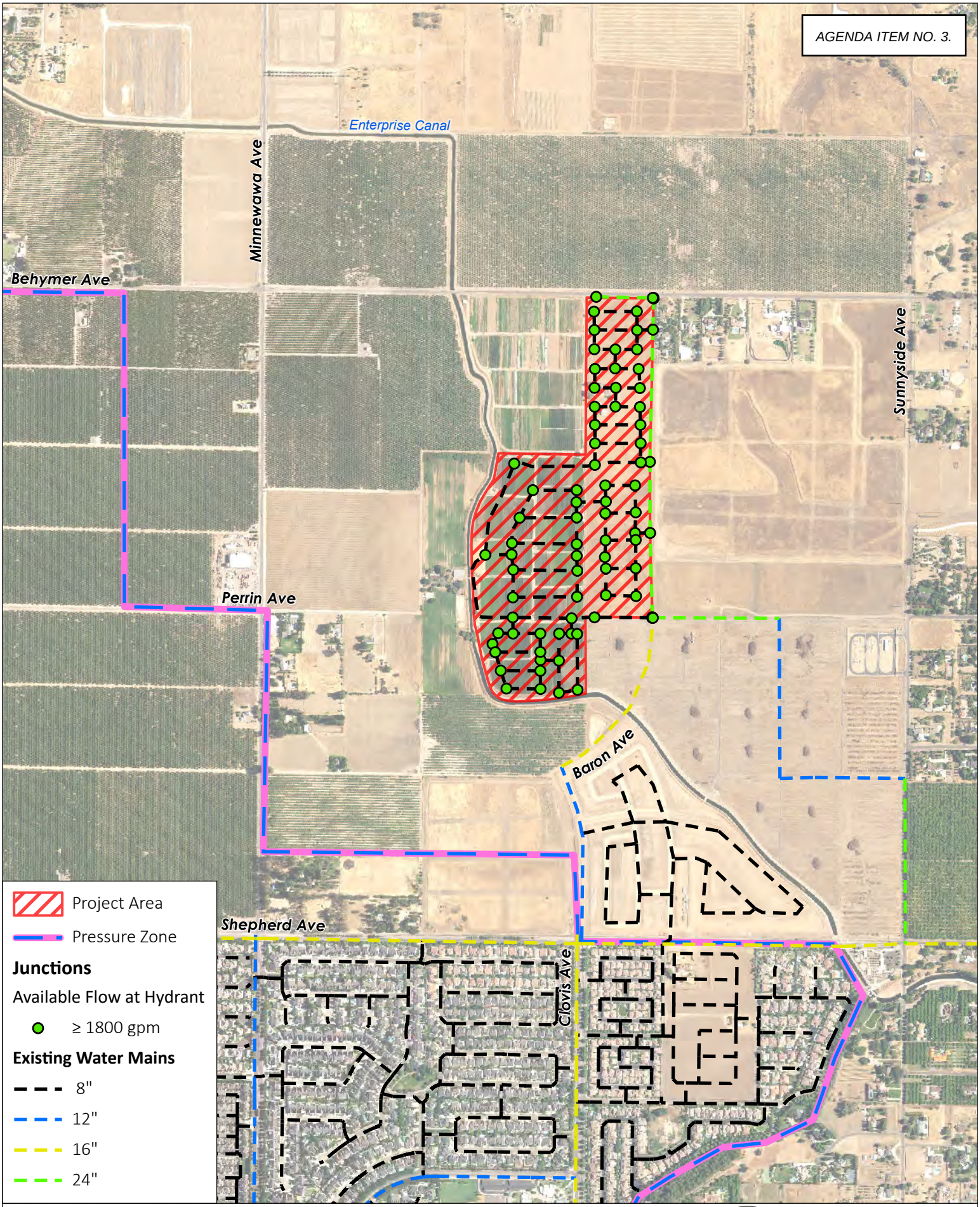


Figure 8: Alternative 4 Maximum Day Demand Plus Fire Flow With Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

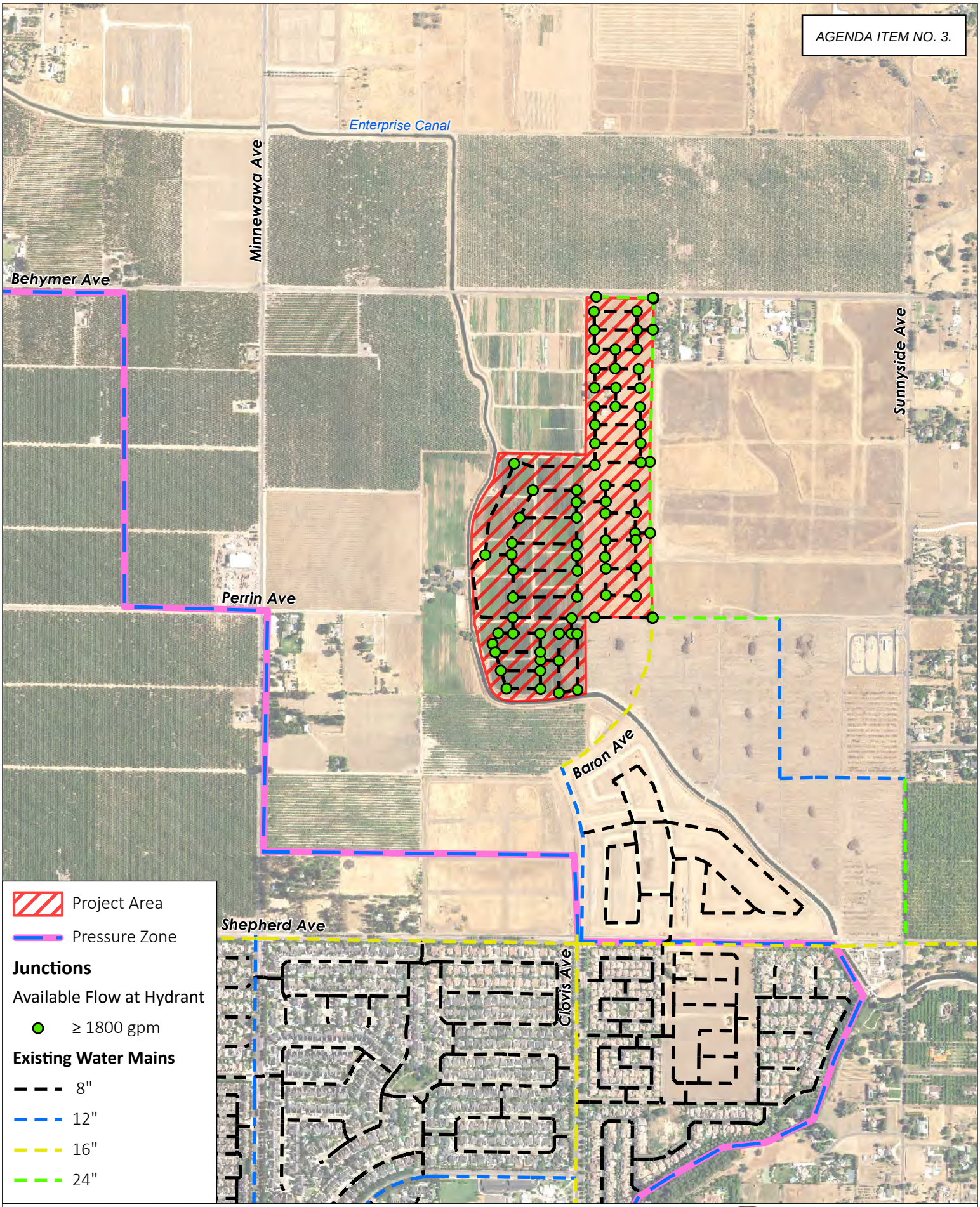


Figure 9: Alternative 4 Maximum Day Demand Plus Fire Flow Without Operational SWTP

Water Supply Assessment

PROVOST & PRITCHA

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

APPENDIX C

WATER SUPPLY ASSESSMENT

This page intentionally left blank

City of Clovis

Water Supply Assessment

Tract 6343
Northwest Sphere of Influence Expansion Area

December 2022

Prepared for:
City of Clovis

Prepared by:
Provost & Pritchard Consulting Group
455 W Fir Avenue, Clovis, CA 93611

COPYRIGHT 2022 by PROVOST & PRITCHARD CONSULTING GROUP
ALL RIGHTS RESERVED

Provost & Pritchard Consulting Group expressly reserves its common law copyright and other applicable property rights to this document. This document is not to be reproduced, changed, or copied in any form or manner whatsoever, nor are they to be assigned to a third party without first obtaining the written permission and consent of Provost & Pritchard Consulting Group In the event of unauthorized reuse of the information contained herein by a third party, the third party shall hold the firm of Provost & Pritchard Consulting Group harmless, and shall bear the cost of Provost & Pritchard Consulting Group's legal fees associated with defending and enforcing these rights.

Report Prepared for:

Client Name

City of Clovis
1033 5th Street
Clovis, CA 93612

Contact:

Sean Smith
(559) 324-2363

Report Prepared by:

Provost & Pritchard Consulting Group

Heather Bashian, PE
Brittney Darnell

Contact:

Heather Bashian, PE

(559) 449-2700

Table of Contents

1 Introduction 1-1
1.1 Purpose and Need for the Water Supply Assessment 1-1
1.2 Reliance on a Related Urban Water Management Plan 1-1
1.3 Document Organization 1-1
2 Project Description 2-1
2.1 Project Location and Setting 2-1
2.2 Water Supply and Distribution 2-1
3 Water Demands 3-1
3.1 Project Demands 3-1
3.2 Demands of Other Existing and Planned Development 3-2
4 Overview of Water Supplies 4-1
4.1 Surface Water 4-1
4.1.1 Kings River 4-1
4.1.2 Central Valley Project Water Allocation: Friant Division 4-1
4.1.3 Garfield Water District 4-2
4.1.4 International Water District 4-2
4.2 Supply from Storage 4-2
4.3 Groundwater 4-3
4.4 Recycled Water 4-5
4.5 Exchanges 4-5
4.6 Water Supply Summary 4-6
5 Normal Year Water Operations 5-1
6 Single-Dry and Multiple-Dry Year Water Supplies 6-1
6.1 Water Year Effects on Water Sources 6-1
6.1.1 Kings River Surface Water 6-1
6.1.2 Friant CVP Surface Water 6-1
6.1.3 Supply from Storage 6-2
6.1.4 Groundwater 6-2
6.1.5 Recycled Water 6-2
6.2 Changes in Water Source Reliability Over the Planning Horizon 6-3

6.3 Summary of Single-Dry and Multiple-Dry Year Reliability Over the Planning Horizon 6-3
6.4 Climate-Based Reliability Factors 6-4
7 Operational Reliability 7-1
8 Conclusions 8-1
8.1 Conclusions Including Additional WSAs 8-1
9 References 9-1

List of Figures

Figure 2-1. Location Map 2-2
Figure 2-2. Water Infrastructure at Buildout 2-3
Figure 3-1. Land Use Plan in Project Area 3-3
Figure 4-1. Irrigation and Water Districts 4-4

List of Tables

Table 3-1. Planned Demand Estimates 3-1
Table 3-2. Proposed Demand Estimates 3-1
Table 3-3. Proposed Water Demands in 5-Year Increments 3-2
Table 3-4. Planned Water Demands by Use Type 3-2
Table 4-1. Water Supplies – Normal Year (UWMP Tables 6-12 and 6-13) 4-6
Table 5-1. Comparison of Normal Year Supplies and Demands 5-1
Table 6-1. Dry Year Supply and Demand Comparison in 2030 (UWMP Tables 7-2, 7-3, and 7-4) 6-4
Table 8-1. Summary of Project Water Supplies and Demands including WSAs 8-1

Abbreviations

AF ..... acre-feet
AFY ..... acre-feet per year
City ..... City of Clovis
County ..... Fresno County
CVP ..... Central Valley Project
CWC ..... California Water Code
FID ..... Fresno Irrigation District
GP ..... General Plan
GWD ..... Garfield Water District
IWD ..... International Water District
KRWA ..... Kings River Water Association
MDR ..... Medium Density Residential
MGD ..... million gallons per day
MHDR ..... Medium High Density Residential
NKGSP ..... North Kings Groundwater Sustainability Plan
RWRF ..... Regional Water Reclamation Facility
SOI ..... sphere of influence
SRF ..... Single-Family Residential
SWTP ..... City of Clovis Surface Water Treatment Plant
USBR ..... US Bureau of Reclamation
UWMP ..... City of Clovis Urban Water Management Plan
WDF ..... Water Demand Factors
WMP ..... City of Clovis, Draft Water Master Plan Update, Phase III
WRF ..... City of Clovis Sewage Treatment/Water Reuse Facility
WSA ..... Water Supply Assessment
WSCP ..... Water Shortage Contingency Plan

1 Introduction

1.1 Purpose and Need for the Water Supply Assessment

California Water Code (CWC) §10912(a) requires preparation of a Water Supply Assessment (WSA) meeting the requirements of CWC §10910 et seq for projects within cities and counties that meet one of several water demand triggers, or the equivalent. These triggers include construction of 500 or more residential units, construction of a shopping center or business establishment having 500,000 square feet of floor space, construction of a commercial office building having more than 250,000 square feet, a proposed hotel or motel having more than 500 rooms, or another project having a water demand equivalent to or greater than the 500-unit development.

This WSA evaluates the adequacy of available water supplies for the proposed Tentative Tract Map No. 6343 (Tract 6343), located in the City of Clovis, Fresno County, California. The Project would entail the development of 590 single-family residential lots, which is greater than the "500 residential units" trigger; therefore, a WSA is required. The City of Clovis operates the water system to which the Project proposes to connect. This water system meets the standards for a "Public Water System" as set forth in CWC §10912(c); the City is therefore responsible for preparation of the required WSA in accordance with CWC §10910(b).

This WSA discusses the estimated water demands and water supply for the proposed Project. The Project is located in Fresno County (County), adjacent to the City of Clovis (City) limits; the area will be annexed as part of the Project's progress and the entire Project will be supplied water from the City.

1.2 Reliance on a Related Urban Water Management Plan

If the Project falls within the boundaries of a current Urban Water Management Plan (UWMP) prepared by the water purveyor, CWC §10910(c)(1) requires that the WSA determine whether projected water demand associated with the Project is included as part of that duly adopted UWMP.

The 2020 Clovis UWMP covers the SOI for the City. This Project lies within the area north of Shepherd, west of Sunnyside Avenue, within the City's SOI (Provost & Pritchard Consulting Group, 2021). Thus, in accordance with the CWC, the preparers have relied on information from the UWMP wherever possible in preparing the various elements of this Assessment.

1.3 Document Organization

This WSA is organized as follows:

- *Section 2 describes the Project and its location.*
- *Section 3 describes the Project's potable and non-potable water demands in addition to those of other existing and planned uses, and how these vary from the numbers used in the UWMP.*
- *Section 4 provides an overview of the City's primary water supplies.*

- *Section 5 discusses the adequacy of water supplies during normal years.*
- *Section 6 discusses the adequacy of water supplies during single-dry and multiple-dry years.*
- *Section 7 discusses operational reliability on a daily basis.*
- *Section 8 concludes whether supplies would be adequate during normal, dry-year, and multiple-dry years during a 20-year projection.*
- *Section 9 lists references cited in this WSA.*

2 Project Description

2.1 Project Location and Setting

The City limits currently encompasses 25.9 square miles. The City's Sphere of Influence (SOI) covers 34.9 square miles, while the City's General Plan (GP) encompasses approximately 74.3 square miles. The City's General Plan (Placeworks, 2014) identified three Urban Centers to focus growth, including Loma Vista, the Northwest area, and the Northeast area; this Project lies within the Northwest area. **Figure 2-1** identifies the location of the Project in relation to the surrounding Clovis/Fresno region.

The Project would entail development of 590 single-family residential lots on approximately 71.5 gross acres in the Northwest Village. The Project is a proposed Medium High Density Residential (MHDR) development with associated neighborhood green space. The Project site includes 71.5 gross acres bounded by Perrin Avenue and the Enterprise Canal to the south, Behymer Avenue to the north, the Enterprise Canal to the west, and Baron Avenue to the east. The Project site encompasses two parcels, entirely (APNs 556-040-07 and 556-040-08) as well as a portion of parcel 556-030-14. Located just outside the city limits, the area north of the Project is planned to develop to primarily medium density residential, the area east of the Project is developing to very low and medium density residential, the area directly west of the Project is bounded by the Enterprise Canal but directly west of the canal is planned for park facilities, and the area to the south is mainly medium density residential with small areas of park facilities and general commercial.

The Project area is currently designated, in the City's General Plan, as Medium Density Residential and current land uses are rural residential, open fields, and agricultural fields with miscellaneous field crops.

2.2 Water Supply and Distribution

The Project will receive water supply from the City's water distribution system, which relies on both groundwater and surface water supplies. Built in 2004, the City's Surface Water Treatment Plan (SWTP) has a current treatment capacity of 22.5 million gallons per day (MGD); expansion to 45 MGD is planned. In addition to the supply from the SWTP, the City has more than 30 groundwater wells located throughout the City, with the nearest wells being approximately one and a half miles southeast of the Project. While the City's system is divided into two pressure zones, there are interconnections between the two to balance supply and demands throughout the year in various water demand scenarios.

The Project area is entirely within the water system's Pressure Zone 2. Water will be delivered to the Project via the City's existing and planned distribution system. The water distribution system is shown in full in the Water Master Plan Update, Phase III (WMP) (Provost & Pritchard Consulting Group, 2018), and in detail for this area on **Figure 2-2**. Through other projects in the area being undertaken by others, the master-planned infrastructure is being constructed to the south and east of the Project and is assumed it will be complete prior to the water demands associated with this Project being realized. Additionally, the master-planned distribution mains in Shepherd Avenue, between Clovis and Fowler Avenues, and further south and east towards the SWTP exist.

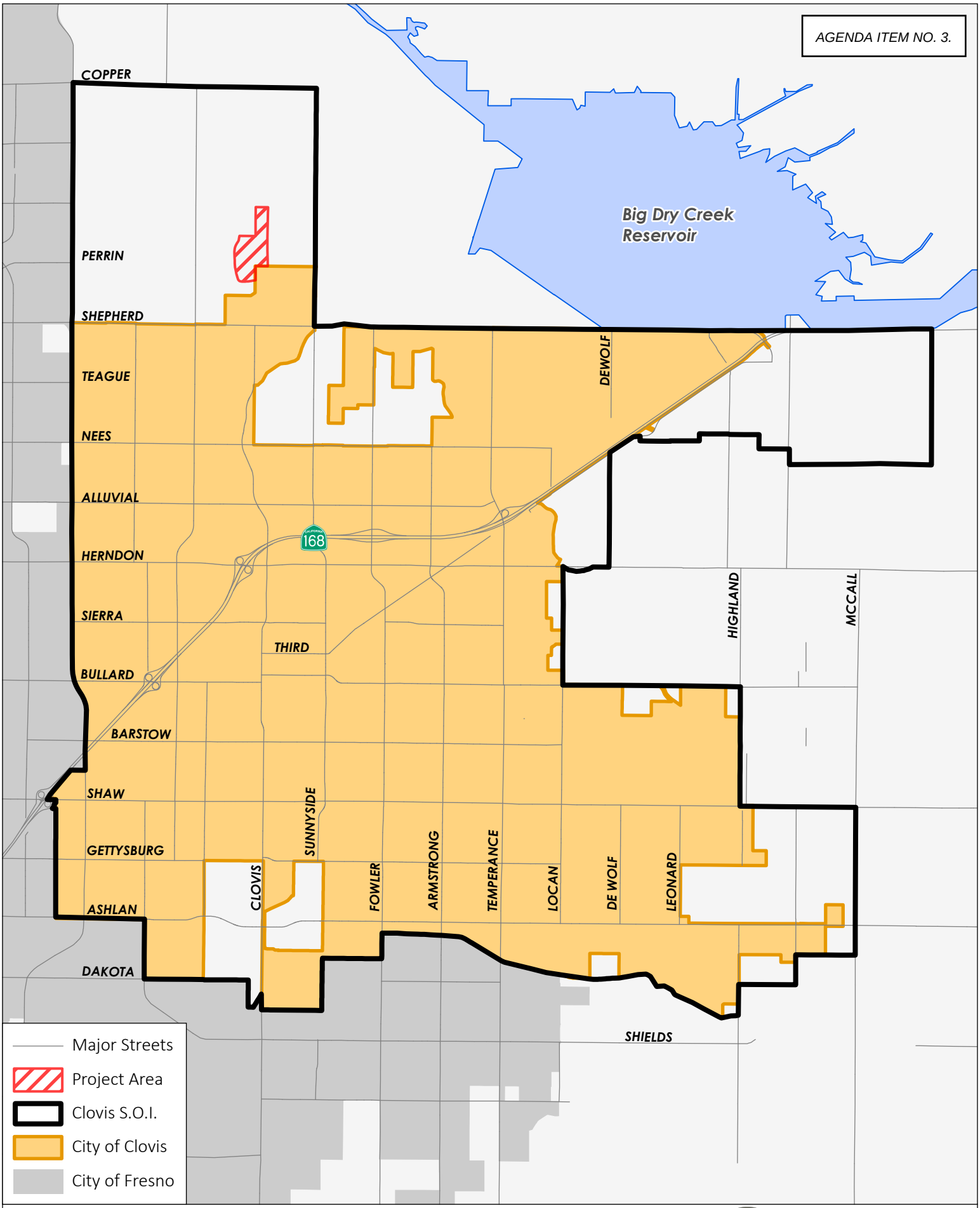


Figure 2-1: Project Location

Water Supply Assessment

12/12/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

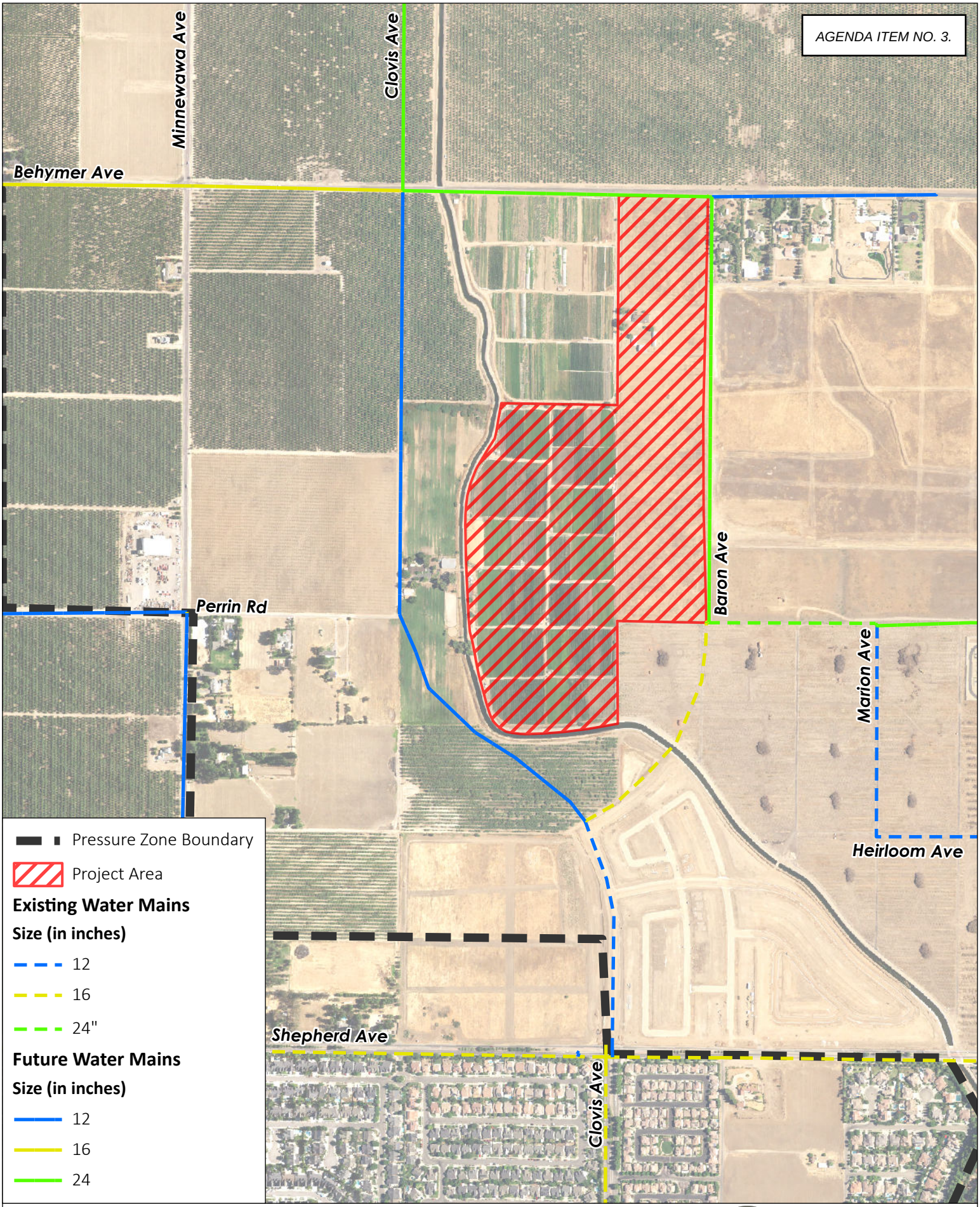


Figure 2-2: Potable Water Infrastructure

Water Supply Assessment

12/7/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

3 Water Demands

This section summarizes projected water demands of the Project, assuming full buildout of the Project by 2030. Water demands associated with development of the Project area were included in the UWMP and were based on Land Use-based Water Demand Factors (WDFs) applied to land uses shown in the City's adopted General Plan. Proposed Project water demands have been estimated based on the proposed land uses and the WDFs shown in the adopted WMP. This section compares water demand estimates developed as part of this study with the City's earlier plans.

3.1 Project Demands

Based on the adopted WDFs stated in the WMP and the existing GP land use (shown in **Figure 3-1**) designations, the planned water demands, shown in acre-feet per year (AFY), for the Project area are shown in **Table 3-1**.

Table 3-1. Planned Demand Estimates

Planned Land Use Designation	Unit Factor (AFY/acre)	Acreage	Demand (AFY)
Medium Density Residential	2.2	71.5	157.3
Totals:		**71.5**	**157.3**

The proposed water demand estimates for this Project are summarized in **Table 3-2**, based on the proposed land uses and WDF.

Table 3-2. Proposed Demand Estimates

Proposed Land Use Designation	Unit Factor (AFY/acre)	Acreage	Demand (AFY)
Medium High Density Residential	3.3	71.5	236.0
Total:		**71.5**	**236.0**

While the proposed land use is residential, the intensity of the residential development is greater than the GP land uses; therefore, the proposed water demand estimates are greater than the planned estimates. The increase in total water demand for the Project area is 78.7 AFY. This increase is attributable to the proposed MHDR designation having a higher WDF than that of the originally planned, MDR designation. Despite the increase in demands for the Project area, the proposed increase amounts to 0.46% of the excess supply for year 2030 the City has in a normal year as shown in Table 7-2 of the 2020 UWMP[1].

[1] The excess supply in a normal year in 2030 is shown in the UWMP as 16,113 AFY; the total demand planned for the area is 157.3 AFY while the proposed demand is 236.0 AFY, yielding an increased demand of 78.7 AFY or 0.49% of the excess supply (78.7/16113 = 0.49%).

Project water demands were calculated in 5-year increments, as shown in **Table 3-3**, assuming 25 percent of the development by 2025 and the balance by 2030[2].

Table 3-3. Proposed Water Demands in 5-Year Increments

	2025	2030	Total
Estimated Demand (AFY)	59.0	177.0	236.0

3.2 Demands of Other Existing and Planned Development

The UWMP report the planned demands for similar types of uses proposed with this Project within the City, referred to collectively as Single-Family Residential uses (SFR). These demands are summarized in UWMP Table 4-5, which is reproduced, in part, below.

Table 3-4. Planned Water Demands by Use Type

Use Type	UWMP Projected Demands in 2030 (AFY)	Proposed Project Demands in 2030	
		Project Demands (AFY)	% of UWMP SFR Demands
Single-Family Residential	18,558	236.0	1.3%
Totals	**18,558**	**236.0**	**1.3%**

Comparing the total proposed Project water demands in **Table 3-2** with the total water demand area analyzed in the UWMP and shown in **Table 3-4**, the Project makes up a very small portion of the overall water anticipated to be delivered by the City to similar types of uses; however, it is worth note the additional demand beyond the original planned land use (78.7 AFY) accounts for 0.4% of the SRF projected demands shown in the 2020 UWMP for year 2030.

[2] The anticipated demands timing is an estimate and development of the Project will be determined by the Project Applicant. This WSA does not govern the development timeline.

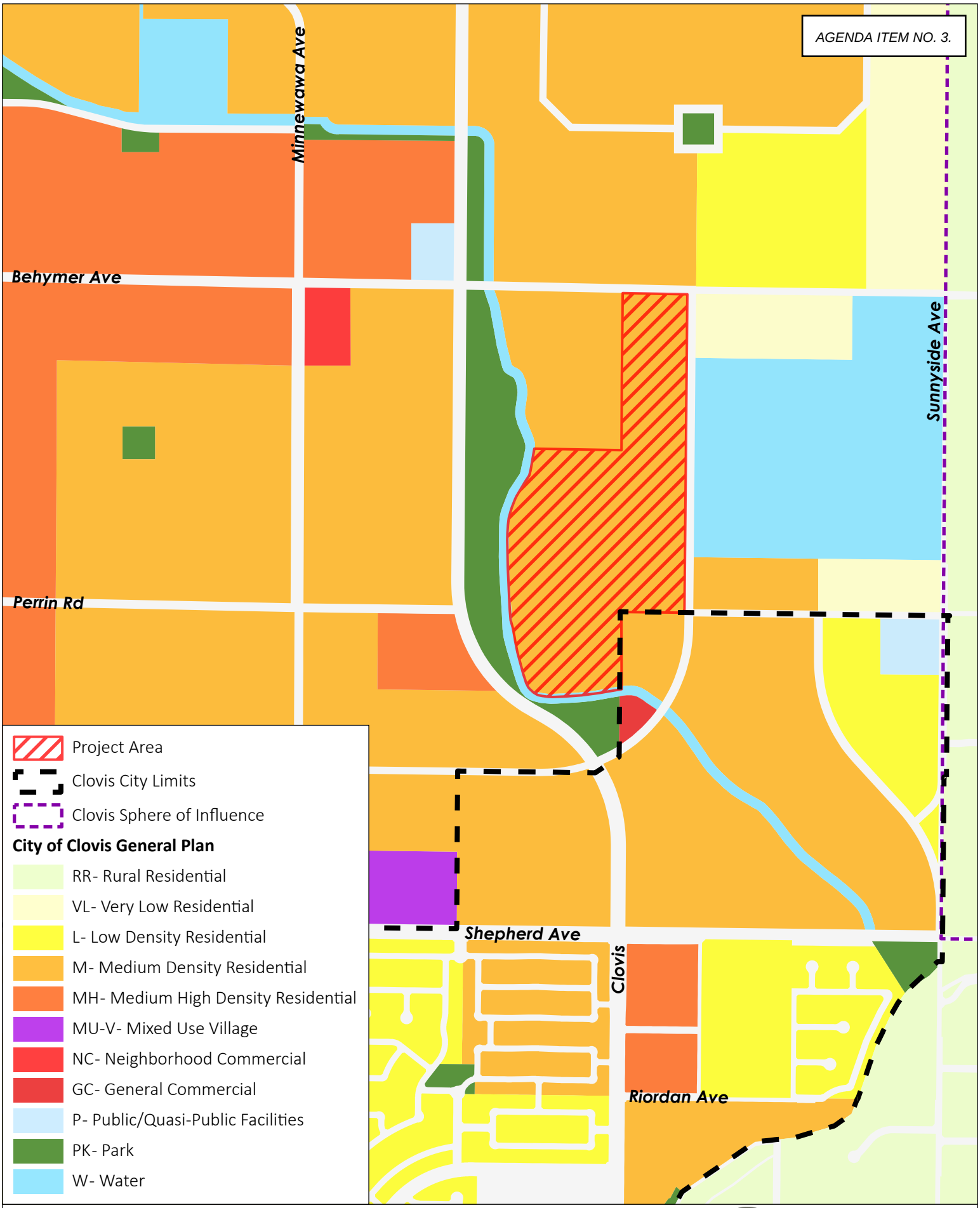


Figure 3-1: Land Use Plan in Project Area

Water Supply Assessment

12/12/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

4 Overview of Water Supplies

CWC §10910(c)(2) allows reliance on the City's UWMP to determine overall water supply reliability if the Project's planned water demand was included in the UWMP. Although, the proposed Project demand is more than what was included in the calculations for the UWMP, the Project area itself was included at the originally planned land use intensity.

§10910(d) requires that a WSA identify any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed Project, including any such existing entitlements, rights, or contracts held by the public water system or city or county preparing the WSA. These descriptions appear in detail in Chapter 6 of the UWMP and are summarized below.

4.1 Surface Water

The City's surface water supply is provided through agreements with Fresno Irrigation District (FID), which allows the City to receive a share of FID's Kings River and Friant Central Valley Project (CVP) entitlements. Garfield Water District (GWD) and International Water District (IWD) are located within the City's General Plan boundaries. As the districts' service areas are urbanized over time, surface supplies available to the two districts will be added to the City's surface water supply. As those supplies are added to the City's water supply portfolio, they will be available throughout the City's service area as part of the general water supply. Currently, all surface water available to the City comes from the FID contract. The boundaries of each of the districts are shown on **Figure 4-1**.

4.1.1 Kings River

FID obtains much of its surface water from the Kings River. FID is a member of the Kings River Water Association, which holds water rights licenses for all the Kings River and storage rights licenses on Kings River reservoirs. FID is entitled to water based upon a prorated monthly schedule determined by the natural flow of the Kings River as it would occur without reservoir storage above the historic Piedra gauging station. FID is entitled to water from the Kings River at all flows, but the percentage is higher at relatively low Kings River flows. If the snowmelt is slow, the District receives a greater entitlement. FID's average gross annual entitlement is 452,541 AF. Within the last fifty years, the smallest entitlement received was 158,109 AF, which occurred in 2015.

The City's allocation from the Kings River is proportional to the total acreage of the City's included area to the total FID area receiving water; the total amounts available to the City are discussed in greater detail in Section 6.1.

4.1.2 Central Valley Project Water Allocation: Friant Division

The water obtained from the CVP comes from the diversion and storage of water from the San Joaquin River behind Friant Dam. The total available water on the San Joaquin River has been estimated at 2,200,000 acre-feet (AF). Of that, 800,000 AF have been designated as Class I supply (Bureau of Reclamation, 2005). Class I supply is considered to be dependable in most years with shortages only in

very dry years. Class II water is in excess of Class I and is therefore much less dependable. FID has a contract with the United States Bureau of Reclamation (USBR) for 75,000 AF of Class II water from this source (Bureau of Reclamation, 2005). The agreement between the City and FID requires the District to make available to the City the proportional share of all surface water available to the District although it does not allow the City to directly receive FID's CVP supplies. Therefore, FID is required to make a like amount of Kings River (or any other surface) water available to the City for its proportional share of Class II CVP supplies. FID's Class II contract has received an average 13,577 AFY with the actual number ranging from zero to the full 75,000 AF depending upon the nature of each water year over that period. **Table 4-1** lists the projected surface water volume through 2040.

4.1.3 Garfield Water District

GWD is located north of the City with a portion of the district in the City's SOI. The GWD holds a Class 1 CVP contract for 3,500 AFY. With half of GWD within the City's SOI, an estimated 1,750 AFY is expected to be added to the City's supply upon development. As noted in the UWMP, the first portion of GWD supplies is not anticipated to be available to the City until 2025, with the total 1,750 AFY not accounted for in the supply totals until 2040.

4.1.4 International Water District

IWD is located east of the City's SOI within the general plan's boundary. The IWD holds a Class 1 CVP contract for 1,200 AFY. The City's General Plan designates a portion of the District's area as industrial and residential use. At build-out it is estimated that the entire 1,200 AFY supply will be added to the City's supply. As noted in the UWMP, the first portion of GWD supplies is not anticipated to be available to the City until 2030, with the total 1,200 AFY not accounted for in the supply totals until 2040.

4.2 Supply from Storage

Since 2004, the City has been storing water in the aquifer to create a stable source of supply over the years. The City has been working with FID to recharge surface water, using the City's contracted shares of capacity in FID's Waldron Banking Facility and Boswell Groundwater Banking Facility, to build up credit in those facilities which allows for annual water withdrawals, on an as-needed or as-requested basis. The surface water banked includes portions of FID's Kings and CVP supplies and may in the future also include other surface water supplies that FID is able to secure on the spot market. Recharged water is purchased under separate agreements with FID and is not included in the surface water totals in the previous section, so this is truly a separate and additional water supply. This process is fully explained in the UWMP.

Two banking facilities, the Waldron Banking Facilities (Waldron) and Boswell Groundwater Banking Facility (Boswell), have been constructed in central Fresno County. The City entered into an agreement with the FID to participate in the financing of the construction of a dedicated water banking facility called the Waldron Banking Facilities. The City is entitled to receive up to ninety percent (9,000 AF) of the annual yield. The City and FID have entered into a similar agreement regarding the Boswell Groundwater Banking Facility whereby the City will have access up to 4,500 AFY of surface water. The

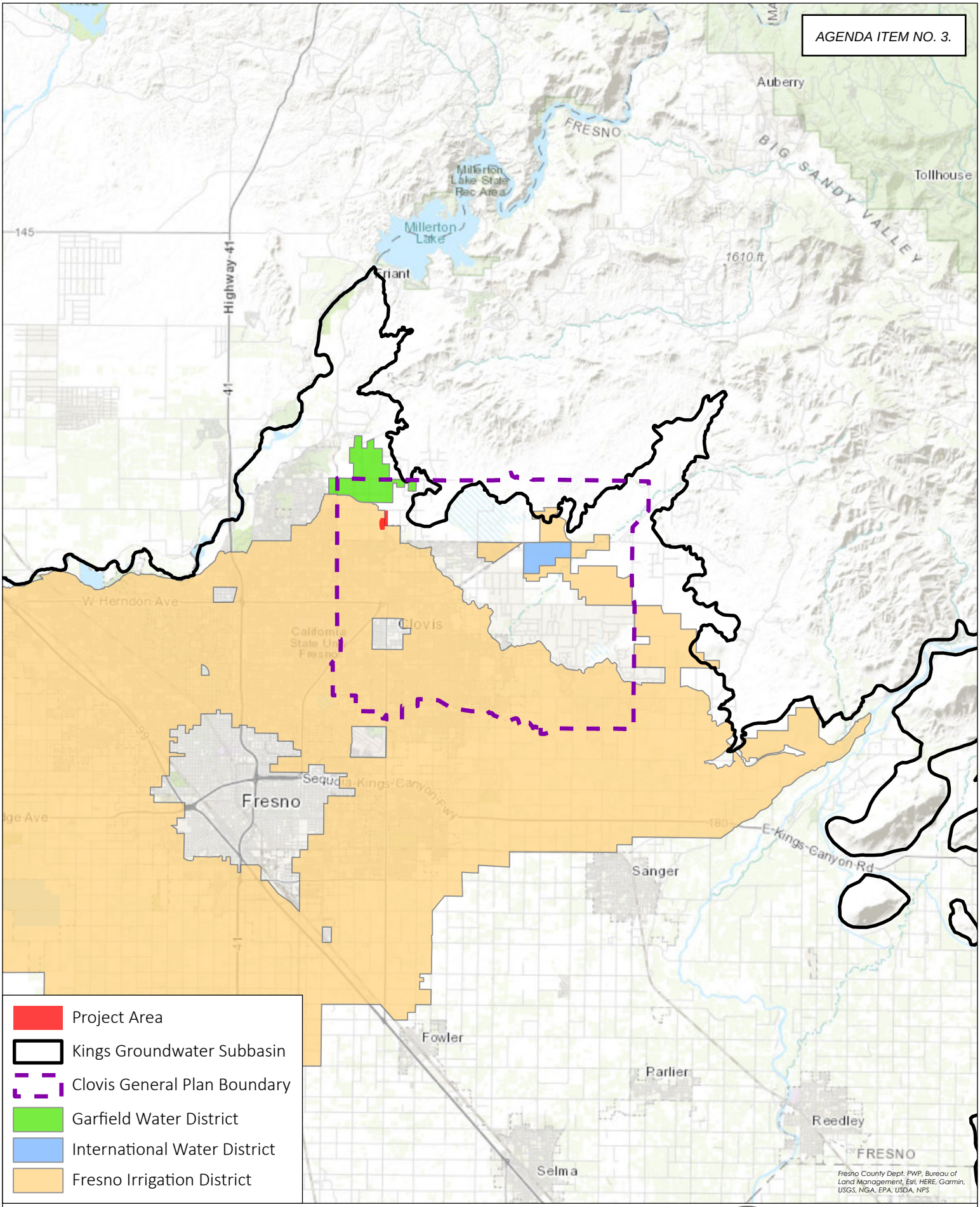
recharged water will be "banked" for future recovery during dry periods or to accommodate planned growth.

The City has created a recharge plan accounting for historic variations in surface water supplies that will allow it to withdraw an annual 13,500 AF, the maximum withdrawal allowed under the City's agreements with FID. This is considered a firm supply. The 13,500 AF maximum annual withdrawal is built into the water supply projections in the UWMP for each year over the planning horizon.

4.3 Groundwater

The City is located within the Kings Groundwater sub-basin, a part of the Tulare Lake Hydrogeologic Basin as described in the Department of Water Resources Bulletin 118 (Department of Water Resources, 2003). The groundwater basin is in overdraft and has been for many years. However, it has not been adjudicated.

Chapter 6 of the UWMP discusses a sustainable groundwater yield for the service area and concludes the sustainable yield to be 9,400 AFY, as discussed in greater detail in the WMP. While the North Kings Groundwater Sustainability Plan (NKGSP) has been written and adopted, it does not yet include a firmer approximation of sustainable yield, although development of one is anticipated. The sustainable yield from the UWMP and WMP has been used for this assessment.



0 2 4
Miles

Figure 4-2: Irrigation and Water Districts

Water Supply Assessment

PROVOST & PRITCHA

12/12/2022 G:\Clovis_City of - 1017\Projects\101722006 - Tract 6343\400 GIS\Map\TM_6343_WSA\TM_6343_WSA.aprx

4.4 Recycled Water

Most of the City's wastewater flow is treated at the Regional Water Reclamation Facility (RWRF), located southwest of the City of Fresno on Jensen Avenue. In 2009, the City of Clovis completed a new Water Reclamation Facility (WRF). In 2020, the WRF produced approximately 2,496 AFY. Of that total, 28 percent was recycled for mostly landscape and agricultural irrigation, with the remainder being discharged to FID's Fancher Creek for agricultural irrigation.

Ultimately the WRF will be expanded to be able to treat 8.4 MGD, or 9,400 AF per year, and will make a substantial contribution to the City's overall water resources. According to the 2020 UWMP, recycled water is used for irrigation of public and private landscape within the service area. Areas receiving or planned to receive recycled water include the Freeway 168 corridor between Shepherd and Sierra Avenues, the existing Clovis Community Medical Center campus, and multiple City parks and landscape areas.

Landscape irrigation will continue to be the main use of recycled water in the future. All public landscape areas within three-quarters of a mile of the distribution system are considered potential recycled water use areas. Clovis Unified School District is evaluating the use of recycled water for its landscape areas. Caltrans has expanded their use of recycled water along State Route 168 from Armstrong Avenue west to Sierra Avenue. Concurrent with the Project's development, the City will expand its use of recycled water and broaden its range of beneficial uses to potentially include irrigating the public landscape space to be developed with the Project.

To affect that increase in use, the City now requires all new development of public landscape near recycled water transmission lines to use recycled water. Additional actions include extending the recycled water distribution system to discharge at groundwater recharge facilities and reducing the cost of recycled water. The UWMP indicates planned use of recycled water supply will be 9,400 AFY by 2040 (UWMP Table 6-13). With a planned[3] recycled water transmission main in Shepherd Avenue, it is possible this Project may use recycled water for landscape irrigation, but the City will make final determination of that at a later date.

4.5 Exchanges

Water exchanges, transfers, and water banking allow purveyors to manage demand and supply variability by ensuring water will be available for the near future. The majority of the City's wastewater is treated at the RWRF. Under an agreement with FID, the City of Fresno receives 0.92 AF of Kings River surface water in exchange for each two AF of reclaimed water produced by the RWRF (46 percent exchange). Clovis is in discussions with the City of Fresno and FID on documenting its pro-rata share of RWRF effluent and the most efficient recover and beneficial use of that effluent. This will require a new effluent exchange agreement with FID, and potentially the City Fresno, to appropriately allocate Clovis' pro-rata share of the treated water. This water is limited by agreement to being used for groundwater recharge activities.

[3] As noted in the City's 2018 Recycled Water Master Plan

4.6 Water Supply Summary

The five sources discussed above make up the City's water resources. These are tabulated overall for 2025 and for each subsequent 5-year period through 2040 in **Table 4-1**.

The City's overall water resources are projected to increase from 50,739 AF per year in 2025 to 74,650 AF per year in 2040. Nearly all this increase will come from increasing surface water resources from 18,039 AF per year in 2020 to 39,400 AF per year in 2040. The mix of water supplies the City plans to use to meet these demands is changing over time and, while the surface water supplies will be the primary source, a mixture of groundwater and supply from storage will be used to meet demands.

Table 4-1. Water Supplies – Normal Year (UWMP Tables 6-12 and 6-13)

Water Supply	Projected Water Supply (AF)			
	2025	2030	2035	2040
Groundwater [1]	11,429	10,753	10,076	9,400
Surface Water [2]	22,160	27,584	32,508	39,400
Supply from Storage (Waldron and Boswell facilities)	13,500	13,500	13,500	13,500
Recycled Water	3,100	5,500	6,300	9,400
Transfers (GWD and IWD)	550	1,600	2,650	2,950
Total	**50,739**	**58,937**	**65,034**	**74,650**

Notes:

[1] Reasonably available volume shows a steady reduction in reliance on groundwater supply, as planned, to the sustainable yield volume in 2040; discussed in greater detail in the UWMP.

[2] Surface water quantities shown in greater detail in the UWMP.

5 Normal Year Water Operations

This section evaluates the ability of the City to meet the overall water demands during normal water years. A normal year is a year, or averaged range of years, that most closely represents the average water supply available to the City. In this case, the normal year reflects the overall water supply summary discussed in Section 4.

This Chapter relies on information taken from Sections 6 and 7 of the UWMP. **Table 5-1** compares the City's water demands and compares them with the normal year water supplies (see **Table 4-1**) for the 5-year increments the Project is anticipated to be constructed, and through 2040, as shown in the UWMP. As shown, total supplies would exceed total demands. Adequate supplies are available to serve the City and its water customers in normal rainfall years such as those discussed in this section. The excess water supply is more than adequate to meet the estimated Project water demands.

Table 5-1. Comparison of Normal Year Supplies and Demands

Condition	Water Supply (AFY)			
	2025	2030	2035	2040
Water Demand	39,737	42,824	46,422	52,598
Water Supply	50,739	58,937	65,034	74,650
Excess/Shortage	**11,002**	**16,113**	**18,612**	**22,052**

6 Single-Dry and Multiple-Dry Year Water Supplies

This section evaluates the availability of City water supplies during single-dry and multiple-dry water years, based on Project buildout in 2030. Numerous factors will work to change the relative quantities of water the City receives from its several water sources. Since each of these has a different reliability in dry years, the overall water supply reliability will change over time. The following sections discuss how this will occur.

During a single-dry year, surface water allotments are anticipated to be reduced by as much as 66 percent for Kings River surface water supplies, and CVP Class II supplies are eliminated completely in dry years. In the future, as the City becomes more reliant on surface water supplies, the impact of surface water reductions in dry years will be more significant.

A multiple-dry year period represents the lowest average supply available to the Project for a consecutive five-year period. This analysis is referred to as a "multi-dry" condition in the UWMP. The WSA analysis is based on the five consecutive driest years of record for the Project's surface water supplies, which were water years 2011/12 through 2015/16.

6.1 Water Year Effects on Water Sources

6.1.1 Kings River Surface Water

Both the single-dry and multiple-dry analyses are most affected by the variations in Kings River entitlement in dry years. FID's entitlement does not vary directly in proportion to overall annual runoff; rather it favors FID versus all the other Kings River diverters. When river flows are low due to slow runoff, low annual precipitation or both, FID's proportional share of the daily river flow increases.

The effect of this is that FID's entitlement, as a percentage of its average entitlement, is higher than the overall water year percentage flow, for virtually any below-average water year. As noted in the UWMP, the anticipated share of Kings River water is shown as 32,100 AFY (UWMP Table 6-4) in 2040 for an average water year. As discussed in the UWMP, the City has recently executed a contract with FID for development of a new firm water supply starting at 1,000 AFY in 2020 and increasing to a maximum of 7,000 AFY by 2045 and thereafter. This new supply will not have the variability of the existing supply based on water year type.

6.1.2 Friant CVP Surface Water

Over the period of 1986 through 2016, the average Class II allocation has been 38 percent of contracted amount. However, Class II supplies are particularly subject to the water year type. However, these supplies are relatively small and would not have significant impact on the total supply.

While Class I entitlements do not currently affect the City's FID supplies, they will affect the future-year GWD and IWD entitlements. Class I allocations in the five multiple-dry years were 0 percent of the contracted amount for all five years.

6.1.3 Supply from Storage

The contract for the Waldron facility allows annual withdrawals of up to approximately 9,000 AFY, while the Boswell Facility allows up to 4,500 AFY. According to the UWMP, the combined withdrawal limit from the two facilities is 13,500 AFY. In any year where surface water deliveries are substantially limited, the City would want to use these resources to the limit.

A related matter is how contributions are made to supply storage. Whereas in normal years the City is making deposits to both facilities, in a drier year those contributions would be reduced or halted since the surface supplies necessary for the deposits would not be available. Since the deposits come from surface water resources not counted in the City's water balance, being acquired under separate FID agreements, the curtailment of deposits does not reduce the City's water demand.

6.1.4 Groundwater

As of the preparation of the 2020 UWMP, the City of Clovis obtains groundwater from more than 30 wells, located throughout the service area. The total well production is estimated at 37,290 gallons per minute (gpm).

According to the UWMP, the City aims to reduce its direct groundwater consumption whenever possible. Most the City's water demands will be met by a combination of surface water and supplies from storage, in water years when those two resources are sufficient to meet demands. In drier years, when surface water supplies are limited, the City will pump groundwater, potentially beyond the 9,400 AFY accounted for in a normal year, to make up the shortfall but not to an unsustainable level as discussed in the NKGSP. The City will also recharge surface waters when available to allow for additional groundwater pumping when needed.

Planning to make that objective possible is very important, as Chapter 6 of the UWMP states that the sustainable groundwater supply in the City service area is 9,400 AF per year, for normal, dry, and multi-dry years. For the time being, there is no restriction against pumping groundwater above the sustainable aquifer yield; however, the NKGSP indicates the City must sustainably use groundwater.

This WSA uses 9,400 AF per year as the sustainable groundwater pumping amount, as stated in the UWMP. Due to the very large size of the aquifer underlying the City, available groundwater is not quickly affected by the type of water year. Anticipating a mix of wet and dry years similar to what has been historically seen, this WSA does not reduce available groundwater in dry or multiple-dry years; however, the City will be prioritizing use of other supplies over groundwater when possible.

6.1.5 Recycled Water

Recycled water production, being tied directly to indoor water use, does not vary significantly with the water year type, and is not adjusted from normal for this analysis.

6.2 Changes in Water Source Reliability Over the Planning Horizon

In 2020, surface water made up 58 percent of the City's direct water supply. In 2030, the surface water supply is planned to be 53 percent of the total while the supply from storage will have increased to 18 percent in a normal year. Groundwater will remain an important component of the water supply in the near future.

This means the City's reliance on surface water supplies, either directly used or pumped from subsurface storage, will have increased to 71 percent of the total. While there is a margin of normal year supply available over planned demand over the entire planning horizon, some provision may have to be made for additional reliable storage to account for such a large portion of surface water being subject to water year variability. See the reliability analysis in Section 6.3 following.

6.3 Summary of Single-Dry and Multiple-Dry Year Reliability Over the Planning Horizon

Supply for dry years would be drawn from a combination of Kings River surface water, supply from storage, groundwater, and recycled water. As shown in the UWMP, it is anticipated that surface water supplies from the FID Firm Water Agreement would still be available during drought years. Other firm water supply sources are groundwater, banked water, and recycled water, all of which are considered resilient against drought compared to surface water supplies. Groundwater banking activities would decrease to accommodate the decreased surface water supplies while still being able to use previously banked groundwater supplies from the Waldron and Boswell facilities. Project demand was assumed to be constant across all water years.

The supplies that would be available during single-dry and multiple-dry years in 2030 (at assumed Project buildout) are summarized in **Table 6-1**. As shown, adequate supplies would be available to supply the City and along with the estimated Project demand of 236 AFY, under all studied conditions. Further, the excess demand associated with the Project (78.7 AFY), over the originally planned land use, accounts for 10.3 percent of the excess supply without conservation and 1.3 percent of excess supply with conservation in the most critical year analyzed – the Single Dry Year. The City has a Water Shortage Contingency Plan (WSCP) (Provost & Pritchard Consulting Group 2021) in place that could be partially or fully implemented if needed or mandated. The 'demand with conservation' values are reduced to reflect implementation of various stages of the WSCP, as discussed in the UWMP.

Table 6-1. Dry Year Supply and Demand Comparison in 2030 (UWMP Tables 7-2, 7-3, and 7-4)

Scenario	Single-Dry Year [1]	Multiple-Dry Year [2]				
		Year 1	Year 2	Year 3	Year 4	Year 5
Baseline demand	42,824	42,824	42,824	42,824	42,824	42,824
Demand with Conservation as shown in UWMP	37,359	39,422	36,962	33,969	30,474	40,757
Total Supply	43,587	54,607	52,576	48,310	43,586	57,992
Excess/<Deficit> in Supply	**763**	**11,783**	**9,752**	**5,486**	**762**	**15,168**
Excess/<Deficit> in Supply with Conservation	**6,228**	**15,185**	**15,614**	**14,341**	**13,112**	**17,235**

Note: Refer to the 2020 UWMP for details on how these values were calculated.

6.4 Climate-Based Reliability Factors

This WSA defers to the UWMP for consideration of the overall effects of climate change upon supply reliability. Climate change has been considered in the preparation of the UWMP.

7 Operational Reliability

The City's surface water entitlement does not accrue all at once during a given water year. Rather, the Kings River entitlement accrues daily throughout the year based on actual river runoff and the Kings River Water Association (KRWA) entitlement schedule. The daily nature of the Kings River supply is especially important early in the water year, which begins October 1. The very low river flows in October and November mean that supply is low, and the City must rely on other water supplies during those months. The relatively large supplies available from storage help mitigate the seasonal nature of the surface water supply, and these are further backed up by groundwater supplies equivalent to almost half the City's total annual demand.

The City has not had any issue with temporary water shortages to date. The City's WMP and UWMP indicates a need to increase their surface water and groundwater supplies to meet future demands and provides detail on how much of each supply is needed compared to the existing supplies. The WMP also includes a Capital Improvements Program identifying capital projects that are necessary to acquire and facilitate the movement of current and future water supplies throughout the City's system in a reliable manner. The City's adherence to their planning documents and consistent development of these water supplies and infrastructure is critical for the City's continued growth and development and will provide operational reliability into the future.

8 Conclusions

As summarized in **Table 8-1**, the City has adequate supplies to meet the needs of all the City's water customers including the Project, in normal water years, over the 20-year planning horizon.

In the buildout year, if demand is as projected, the City will have sufficient water to meet dry year demands of all dry year event types. Conservation measures, detailed in the Water Shortage Contingency Plan, have been developed that would mitigate possible shortfalls by reducing demand approximately 15 percent. Evidence from the 2013 to 2015 drought suggests that those results, and more, are achievable. Additionally, as the City has surplus water supplies in normal years, short-term additional groundwater extraction in the single-dry and multiple-dry years is also planned as part of their water portfolio.

As discussed in Section 7, the City has plans to continue to acquire water supplies and construct infrastructure to supply current and future water users. Therefore, we conclude the City of Clovis has adequate water supplies to meet the needs of the City including additional demands associated with this Project in normal, dry, and multi-dry years given the previously discussed potential demand reductions and supply augmentations.

8.1 Conclusions Including Additional WSAs

Since the 2020 UWMP was adopted, three WSAs have been prepared for the City, including this one. It is important to understand the cumulative impact of the additional demands associated with WSAs over and beyond the demands analyzed in the 2020 UWMP.

Table 8-1. Summary of Project Water Supplies and Demands including WSAs

2020 UWMP Supply and Demand Comparison Results	Normal Year (2030)	Single-Dry Year	Multiple-Dry Year				
			Year 1	Year 2	Year 3	Year 4	Year 5
Excess/<Deficit> in Supply	16,113	763	11,783	9,752	5,486	763	15,168
Excess/<Deficit> in Supply with Conservation	--	6,228	15,185	15,614	14,341	13,112	17,235
Additional Demands Associated with WSAs prepared since 2020 UWMP							
Home Place Master Plan (Approved March 2021)	No Additional Demands Associated with Home Place Master Plan WSA						
Tract 6205 SOI Expansion (Estimated Approval 2022)	256	256	256	256	256	256	256
Tract 6343 (Estimated Approval 2022)	79	79	79	79	79	79	79
Excess/<Deficit> in Supply including Additional Demands from WSAs	**15,779**	**429**	**11,449**	**9,418**	**5,152**	**428**	**14,834**
Excess/<Deficit> in Supply with Conservation including Additional Demands from WSAs	**--**	**5,944**	**14,901**	**15,330**	**14,057**	**12,828**	**16,950**

The demands in **Table 8-1** include those demands noted in the UWMP, the additional demands associated with the Project evaluated in this WSA (78.7 AFY), as discussed in Section 2.2, and the additional demands discussed in the previously prepared WSAs. Similarly, the noted Excess/Deficit reflects the difference between these summated demands and the total supply noted in the UWMP. This approach accounts for the additional demands associated with the proposed land use type above the demands associated with the originally planned land use type. There is still an excess of supply in all conditions, even with the additional demands.

As noted above, additional groundwater supplies may not be necessary in the critical year or multiple year drought depending on operational decisions regarding conservation; however, the City's UWMP notes additional groundwater supplies would be available on a short-term basis during a drought condition.

9 References

Provost & Pritchard Consulting Group (2021). *City of Clovis, 2020 Urban Water Management Plan Update.* Clovis.

Placeworks. (2014). *General Plan, City of Clovis.* Clovis.

Department of Water Resources. (2003). *Bulletin 118 - California's Groundwater.* Sacramento.

Provost & Pritchard Consulting Group. (2018). *City of Clovis, Water Master Plan Update, Phase III.* Clovis.

Provost & Pritchard Consulting Group (2021). *City of Clovis 2021 Water Shortage Contingency Plan*. Clovis.

APPENDIX B

PUBLIC COMMENTS ON THE NOP

This page intentionally left blank

TABLE MOUNTAIN RANCHERIA
CULTURAL RESOURCES DEPARTMENT

Brenda D. Lavell
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Jenna Gosselaar
Tribal Secretary/Treasurer

Richard L. Jones
Tribal Council Member-At-Large

Michelle Heredia-Cordova
Tribal Council Member-At-Large

"Preserving our past, Protecting our future"

Robert Pennell
Cultural Resources Department Director

Office (559) 325-0351
Fax (559) 325-0394

23736 Sky Harbour Road

P.O. Box 410

Friant, California 93626

Office (559) 316-6330

Fax (559) 822-6340

CERTIFIED 2768 6008

November 15, 2022

City of Clovis
Lily Cha-Haydostian, Senior Planner
1033 Fifth Street
Clovis, Ca. 93612

RE: TM6343 et al, General Plan Amendment and Project Subject to AB52

Dear: Lily Cha-Haydostian

Table Mountain Rancheria is responding to your letter dated, November 04, 2022, regarding, proposed TM6343 et al, General Plan Amendment and Project Subject to AB52. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

If you have already conducted a record search, please provide Table Mountain Rancheria with copies of any cultural resource report you may have.

At this time, please contact our office at (559) 325-0351 or rpennell@tmr.org to coordinate a discussion and meeting date regarding your project.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 29, 2022

Lily Cha-Haydostian, MPA, Senior Planner
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Re: 2022120483, Tract Map 6343 Project, Fresno County

Dear Ms. Cha-Haydostian:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when [illegible] following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

3. Contact the NAHC for:
   - **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   - **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   - **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   - **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   - **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Cameron.Vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

cc: State Clearinghouse

County of Fresno
DEPARTMENT OF PUBLIC HEALTH

December 29, 2022

LU0022070
2604

Lily Cha, Senior Planner
City of Clovis- Planning Division
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Cha:

Subject: Notice of Preparation DEIR
Project: DEIR Tract Map 6343
Location: City of Clovis

The Fresno County Department of Public Health, Environmental Health Division has completed a review of the Request for Comment for the proposed NOP EIR for Tract Map 6343 and offers the following comments for future consideration:

Hazards and Hazardous Materials Section

- The hazardous materials section should address potential hazards and hazardous materials during construction and grading activities, there is potential for discovering abandoned underground petroleum storage tank(s). If this occurs, the applicant(s) shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health System. Contact the Certified Unified Program Agency at (559) 600-3271 for more information.

- Similarly, abandoned sewage disposal systems may be discovered during construction and grading activities. All abandoned sewage disposal systems within the unincorporated County shall be properly destroyed under permit and inspection from the Department of Public Works and Planning, Building and Safety Section.

Hydrology and Water Quality

- The Hydrology and Water Quality Section should address the manner in which existing water wells, both domestic and agricultural, will be handled in areas of the proposed project. Areas served by individual domestic and agricultural wells may provide a conduit to groundwater if not properly protected or destroyed. Improper abandonment of such wells presents a significant risk of contaminating groundwater. For this reason, when development occurs, it is extremely important to ensure the safe and proper destruction of all abandoned water wells. Contact the Fresno County Department of Public Health, Water Surveillance Program at (559) 600-3357 for more information.

Noise

- Future projects have the potential to expose nearby residents to elevated noise levels through various activities and events. Consideration should be given to the noise elements of the City

Municipal Code and the Fresno County Ordinance Code including mitigation measures from noise generating sources.

If I can be of further assistance, please contact me at (559) 600-3271.

Reviewed By:

Kevin Tsuda, R.E.H.S.
Environmental Health Specialist
Environmental Health Division

KT

Deep Sidhu- Supervisor Environmental Health Division

County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

January 4, 2023

Lily Cha, Senior Planner
Planning Division
1033 Fifth Street
Clovis, CA 93612
(559) 324-2335
lilyc@cityofclovis.com

SUBJECT: Request for Review and Comments - City of Clovis - Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343

Dear Lily Cha:

The County of Fresno appreciates the opportunity to review and comment on the subject project being reviewed by the City of Clovis. The documents received for this review were circulated to our various Fresno County Public Works and Planning divisions. Based on the County's initial review, we offer the following comments from our various divisions:

Department Administration Comments:

The annexation boundary must include the full width of rights-of-way along Behymer and Sunnyside Avenues. Also, to avoid creation of a peninsula or other irregular annexation boundaries, no annexations north of Behymer Avenue should occur until areas west of the project site are annexed to the City of Clovis. The County may have additional comments on the proposed annexation boundary once final offsite infrastructure improvements (e.g. traffic signals, road way improvements) have been identified.

Road Maintenance and Operations Comments:

1) Annexation should include the full width of Behymer Ave along the proposed annexation area and should include the full span of state bridge CSBN: 42C0300 crossing Enterprise Canal.

2) Depending on results of the Transportation study of the EIR, RMO may have additional comments or conditions.

If you have any questions or comments, please contact Wendy Nakagawa at wnakagawa@fresnocountyca.gov.

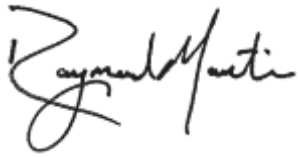
Transportation Planning Comments:

Per the provided project information this project is likely to impact county facilities and should require a TIS, please include the count in all future routings best point of contact is hluna@fresnocountyca.gov. Using ITE trip Generation Manual (11th Edition) trips are calculated to be over the county's threshold.

If you have any further questions regarding this matter, please contact Hector Luna at hluna@fresnocountyca.gov.

If you have any questions regarding the information described in this letter, please contact me at rmartin@fresnocountyca.gov or (559) 600-4305.

Sincerely,



Raymond Martin, Staff Analyst

Development Services and Capital Projects Division

Department of Toxic Substances Control

Yana Garcia
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

January 11, 2023

Ms. Lily Cha-Haydostian, MPA
Senior Planner
City of Clovis
1033 Fifth Street
Clovis, CA 93612
LilyC@cityofclovis.com

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR TRACT MAP 6343 – DATED DECEMBER 19, 2022 (STATE CLEARINGHOUSE NUMBER: 2022120483)

Dear Ms. Cha-Haydostian:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of an Environmental Impact Report (EIR) for Tract Map 6343 (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the MND:

1. A State of California environmental regulatory agency such as DTSC, a Regional Water Quality Control Board (RWQCB), or a local agency that meets the requirements of Health and Safety Code section 101480 should provide regulatory concurrence that the project site is safe for construction and the proposed use.
2. The MND should acknowledge the potential for historic or future activities on or near the Project site to result in the release of hazardous wastes/substances on the Project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the

Printed on Recycled Paper

contamination, and the potential threat to public health and/or the environment should be evaluated. The MND should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

3. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil, DTSC recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the Project described in the MND.

4. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

5. If any projects initiated as part of the proposed Project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 *Information Advisory Clean Imported Fill Material*.

6. If any sites included as part of the proposed Project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the MND. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the MND. Should you choose DTSC to provide oversight for any environmental investigations, please visit DTSC's Site Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

Gavin McCreary, M.S.
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

From: EB <ebsemail2000@gmail.com>
Sent: Monday, January 16, 2023 3:55 PM
To: Lily Cha <lilyc@ci.clovis.ca.us>
Subject: [External] TM 6343 EIR comment

My comments for the ER include the following:

1) On the Initial Study document, the checklist in Section 2.0 does not have Biological Resources marked as having a "Potentially Significant Impact" from the project. This seems to be in error as the threatened California Tiger Salamander has been observed within 1 mile of this project.

2) The table in Section 3.2 of the Initial Study document shows that agricultural and forestry resources would have a "less than significant" impact by this project. However, in Section 3.2.1, the document states that "the City of Clovis prepared a LESA model for the Heritage Grove growth area, which includes the project site, and it concluded that conversion of farmland in the Heritage Grove growth area would result in significant unavoidable impacts to important farmland." This previous sentence signifies to me that the table incorrectly marks the project as having a "less than significant impact". Shouldn't the table have marked the project as having a "potentially significant impact" and isn't mitigation of a 1:1 ratio needed if farmland conversion is deemed significant?

Also, is there a public agency that reviews this Initial Study document to confirm it's validity? An agency such as the California Department of Conservation, Division of Land Resource Protection?

Thank you

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM,
CHARLTON H. BONHAM, Director

January 17, 2023

Lily Cha, Senior Planner
City of Clovis Planning and Development Services1033 Fifth Street
Clovis, California 93612
(559) 324-2335
lilyc@cityofclovis.com

Subject: Tract Map 6343 Project (Project)
Notice of Preparation (NOP)
State Clearinghouse No: 2022120483

Dear Lily Cha:

The California Department of Fish and Wildlife (CDFW) received a NOP for a draft Environmental Impact Report (EIR) from the City of Clovis for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)).

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id*., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

In this role, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on Project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: City of Clovis

Objective: The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots, averaging 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot (a plot of undeveloped land) spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

development occurring within the annexation area would require a separate project-specific analysis.

The proposed project would be developed in three phases:

Phase 1 – Phase 1 would include the development of 136 single-family residential units with an average size of 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress driveway located on Perrin Avenue. Phase 1 would include the construction of 44 parking spaces, an 8,745 square-foot community pool and recreation area, a 13,930 square-foot community park, 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

Phase 2 – Phase 2 would include the development of 214 single-family residential units with an average size of 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress driveway located along the future southern extension of Baron Avenue, and one driveway along Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

Phase 3 – Phase 3 of the proposed project would include the development of 240 single-family residential units with an average size of 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress driveways located along the future southern extension of Baron Avenue, and through one gated driveway located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985 square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue. In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot long extension of Baron Avenue south of East Behymer Avenue. The dirt-lined Enterprise Canal is adjacent to the Project site on the western side.

Location: Southwest of the intersection of East Behymer Avenue and North Sunnyside Avenue. Assessor Parcel Numbers (APNs): 556-040-07S, 556-040-08S, and 556-030-14S.

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

Timeframe: None given.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the City of Clovis in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, indirect, and cumulative impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document for this Project.

The NOP indicates that the EIR for the Project will consider potential environmental effects of the proposed Project to determine the level of significance of the environmental effect and will analyze these potential effects to the detail necessary to make a determination on the level of significance. The EIR will also identify and evaluate alternatives to the proposed Project. When an EIR is prepared, the specifics of mitigation measures may be deferred, provided the lead agency commits to mitigation and establishes performance standards for implementation.

Special-Status Species: Based on aerial imagery, and species occurrence records from the California Natural Diversity Database (CNDDB, 2023), the proposed Project site and/or surrounding area is known to and/or has the potential to support special-status species, and these resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities. CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the Federal and State threatened (FT/ST) California tiger salamander (*Ambystoma californiense*), the State threatened (ST) Swainson's hawk (*Buteo swainsoni*), the State candidate (SC) endangered species, Crotch bumble bee (*Bombus crotchii*), and the State species of special concern (SSC) burrowing owl (*Athene cunicularia*).

California Tiger Salamander (CTS)

The Project area is within the range of CTS and this species has been observed in several areas in the Project vicinity per CNDDB records. Review of aerial imagery indicates the presence of several wetland/ponded features in the Project's vicinity that may have the potential to support breeding CTS. In addition, the Project area or its immediate surroundings may support small mammal burrows, a requisite upland habitat feature for CTS.

Up to 75% of historic CTS habitat has been lost to development (Searcy et al. 2013). Decline in CTS populations is attributed to habitat loss and fragmentation; predation from, and competition with invasive species; hybridization; small mammal control; and contaminants (USFWS 2017).

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

CDFW advises avoidance for CTS include a minimum 50-foot no-disturbance buffer delineated around all small mammal burrows within and/or adjacent to the Project construction footprint. If burrow avoidance is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take.

As part of the biological studies conducted in support of the CEQA document, CDFW requests protocol CTS surveys be performed to identify potential Project-related impacts to this species in and surrounding the Project footprint. These surveys and the associated impacts analysis should be conducted by a qualified biologist using the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander,* which were issued by CDFW and the USFWS in 2003. Please note that the protocol requires that surveys be conducted during at least two seasons, with sufficient precipitation, to be considered complete. If CTS are found on the Project site, "take" authorization is recommended by CDFW and would occur through the issuance of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b). In the absence of protocol surveys, the applicant can assume presence of CTS within the Project area and immediately focus on obtaining an ITP. For information regarding ITPs, please see the following link: https://www.wildlife.ca.gov/Conservation/CESA. Included in the ITP would be measures required to avoid and/or minimize direct "take" of CTS on the Project site, as well as measures to fully mitigate the impact of the "take."

Swainson's Hawk (SWHA) (Compensation for Foraging Habitat)

SWHA have the potential to nest within and near the Project site. The proposed Project will involve activities near large trees that may serve as potential nest sites. CDFW recommends that the biological studies conducted in support of the CEQA document include both protocol surveys for nesting SWHA within the project area and a 0.5 mile buffer surrounding the project and an analysis of the impacts of foraging habitat loss on this species as a result of the Project. All identified nests should be avoided by a 0.5 mile buffer to avoid take of SWHA.

Per Google historical imagery from 2021, the proposed Project area was composed of agricultural land that the SWHA could potentially utilize for foraging habitat. Current Google aerial imagery shows that a large portion of that resource has been altered by ground disturbing activities. Due to this issue, CDFW recommends compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based on CDFW's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (CDFG 1994), which recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites with the amount of habitat compensation dependent on nest proximity. In addition to fee title acquisition or a conservation easement recorded on property with suitable grassland habitat features, mitigation may occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

CDFW recommends that in the event an active SWHA nest is detected during surveys and the 0.5 mile no-disturbance buffer around the nest cannot feasibly be implemented, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Crotch Bumble Bee (CBB)

The California Fish and Game Commission (Commission) determined listing CBB "may be warranted" on June 12, 2019, advancing the species to candidacy. The Commission's determination was challenged in court soon after, and candidacy was stayed during much of the ensuing litigation. A California court of appeal ultimately upheld the Commission's determination, and the state Supreme Court declined to review the case. On September 30, 2022, the court of appeal issued remittitur in the litigation, which had the legal effect of reinstating candidacy for CBB.

As of September 30, 2022, CBB is again a candidate species under CESA and as such, receives the same legal protection afforded to an endangered or threatened species (Fish & G. Code, §§ 2074.2 & 2085). It is illegal to import, export, take (hunt, pursue, catch, capture, or kill, or attempt engage in any of these activities), possess, purchase, or sell CBB or any part or product thereof (Fish & G. Code, §§ 86, 2080, 2085).

CBB was once common throughout most of the central and southern California, however, it now appears to be absent from most of it, especially in the central portion of its historic range within California's Central Valley (Hatfield et al. 2014). Analyses by the Xerces Society et al. (2018) suggest there have been sharp declines in relative abundance by 98% and persistence by 80% over the last ten years.

CBB have the potential to occur within the vicinity of the Project site. Suitable CBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late February through late October underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, underbrush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB populations.

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with Project ground- and vegetation-disturbing activities include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality in violation of Fish and Game Code. CDFW recommends the CEQA document prepared for this Project include that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

Burrowing Owl (BUOW)

BUOW may occur near the Project site (CDFW 2023). BUOW inhabit open grassland or adjacent canal banks, ROWs, vacant lots, etc. containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Review of aerial imagery indicates that some of the Project site is bordered by annual grassland and potentially fallow agricultural fields and may be present within the Project site.

Potentially significant direct impacts associated with subsequent activities include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). Therefore, subsequent ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and CDFW's Staff Report on Burrowing Owl Mitigation" (CDFG 2012). Specifically, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15), when BUOW are most detectable.

CDFW recommends no-disturbance buffers, as outlined in the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

Nesting Birds

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified biologist conduct an assessment of nesting habitat during biological surveys in support of the project's CEQA document and include measures in the DEIR to conduct pre-construction surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance for each year that each phase of the project is in construction to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project sites to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW for additional avoidance and minimization measures.

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

If continuous monitoring of identified nests by a qualified biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction areas would be concealed from a nest site by topography. CDFW recommends that a qualified biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

II. Editorial Comments and/or Suggestions

CDFW acknowledges that the mitigation measures in the Initial Study are appropriate and that we recommend they are included in the DEIR document.

CDFW requests that the DEIR fully identify potential impacts to biological resources, including the above-mentioned species. In order to adequately assess any potential impacts to biological resources, focused biological surveys should be conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) in order to determine whether any special-status species and/or suitable habitat features may be present within the Project area. Properly conducted biological surveys, and the information assembled from them, are essential to identify any mitigation, minimization, and avoidance measures and/or the need for additional or protocol-level surveys, and to identify any Project-related impacts under CESA and other species of concern.

Therefore, CDFW recommends the DEIR address potential impacts to these species and provide measurable mitigation measures that, as needed, will reduce impacts to less than significant levels. Information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols).

Federally Listed Species: CDFW also recommends consulting with the USFWS on potential impacts to Federally listed species, specifically, but not limited to, the FT California tiger salamander. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS to comply with FESA is advised well in advance of any ground disturbing activities.

Waters of the State and U.S.: Pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without mitigation measures this Project could result in pollution of Waters of the State from storm water runoff or construction-related erosion. Potential impacts to the wildlife resources that utilize watercourses in the Project area include the following: increased sediment input from road or structure runoff; construction-related activity runoff associated with Project-related activities and implementation; and/or impairment of wildlife movement through the area. The Regional Water Quality Control Board and United States Army Corps of Engineers (USACE) also have jurisdiction regarding discharge and pollution to Waters of the State.

Water Rights: CDFW recommends the DEIR include a detailed analysis of the water rights and water entitlements that pertain to the Project, including whether any applications or change petitions will be filed. As stated previously, CDFW, as Trustee Agency, is consulted by the SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Given the potential for impacts to sensitive species and their habitats, it is advised that required consultation with CDFW occur well in advance of the SWRCB water right application process.

Project Alternatives Analysis: CDFW recommends that the information and results obtained from the biological technical surveys, studies, and analysis conducted in support of the project's CEQA document be used to develop and modify the project's alternatives to avoid and minimize impacts to biological resources to the maximum extent possible. When efforts to avoid and minimize have been exhausted, remaining impacts to sensitive biological resources should be mitigated to reduce impacts to a less than significant level, if feasible.

Cumulative Impacts: CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those resources that are rare or in poor or declining health and will be impacted by the project, even if those impacts are relatively small (i.e. less than significant). Cumulative impacts should be analyzed using an acceptable methodology to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources and should be focused specifically on the resource, not the project. An appropriate resource study area should be identified and utilized for this analysis. At a minimum, all of the described associated road extensions, water service infrastructure improvements, and stormwater management projects should be included as projects that are reasonably foreseeable. Please note that CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CDFW appreciates the opportunity to comment on the Project to assist the City of Clovis in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). If you have any questions, please contact Kelley Nelson, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Kelley.Nelson@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
FA83F09FE08945A...
Julie A. Vance
Regional Manager

ec: Linda Connolly (linda.connolly@wildlife.ca.gov)
California Department of Fish and Wildlife

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

Patricia Cole (patricia_cole@fws.gov)
United States Fish and Wildlife Service

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

LITERATURE CITED

California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed January 3, 2023.

CTS Literature Citations

Searcy, C.A., E. Gabbai-Saldate, and H.B. Shaffer. 2013. Microhabitat use and migration distance of an endangered grassland amphibian. Biological Conservation 158: 80-8. Shaffer, H. B., J. R. Johnson, and I. J. Wang. 2013. Conservation Genetics of California tiger salamanders. Final Report prepared for Central Valley Project Conservation Program, Bureau of Reclamation, Sacramento, California.

United States Fish and Wildlife Service (USFWS). 2003. Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander, October 2003.

USFWS. 2017. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). U. S. Fish and Wildlife Service, Region 8, Sacramento, California. June 2017.

SWHA Literature Citations

California Department of Fish and Game (CDFG). 1994. CDFW's Staff Report Regarding Mitigation Impacts to Swainson's Hawks. California Department of Fish and Game.

CBB Literature Citations

Goulson, D. 2010. Bumblebees: behaviour, ecology, and conservation. Oxford University Press, New York. 317pp.

Hatfield, R, S. Colla, S. Jepsen, L. Richardson, R. Thorp, and S. Foltz Jordan. 2014. Draft IUCN Assessments for North American *Bombus* spp. for the North American IUCN Bumble Bee Specialist Group. The Xerces Society for Invertebrate Conservation, www.xerces.org, Portland, OR.

Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. & Colla, S. 2015. Bombus crotchii. The IUCN Red List of Threatened Species.

DocuSign Envelope ID: 49D29389-0942-488A-BF6E-394E6639C9CC

Williams, P. H., R. W. Thorp, L. L. Richardson, and S .R. Colla. 2014. Bumble bees of North America: An Identification guide. Princeton University Press, Princeton, New Jersey. 208pp.

Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of California fish and game commission to list the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October 2018.

BUOW Literature Citations

California Burrowing Owl Consortium. 1993. Burrowing owl survey protocol and mitigation guidelines. April 1993.

CDFG. 2012. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Game.

Gervais, J.A., D.D. Rosenberg, and L.A. Comrack. Burrowing Owl (*Athene cunicularia*) *in* Shuford, W.D. and T. Gardali, editors. 2008. California Bird Species of Special Concern.

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

January 30, 2023

Lily Cha
City of Clovis
Planning Division
1033 Fifth Street
Clovis, CA 93612

Project: Notice of Preparation of an Environmental Impact Report for the Tract Map 6343 Project

District CEQA Reference No: 20221677

Dear Ms. Cha:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) from the City of Clovis (City) for the Tract Map 6343 Project. Per the NOP, the project consists of the annexation of 246 acres by the City of Clovis and the development of 71.54 acres for 590 single family residential lots (Project). Per the NOP, any future development in the remaining annexed area would require a separate project-specific analysis. The Project is located on the southwest quadrant of the intersection between East Behymer Avenue and North Sunnyside Avenue within the City of Clovis' sphere of influence.

The District offers the following comments regarding the Project:

1) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM2.5) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM10, PM2.5 standards.

The District's initial review of the Project concludes that emissions resulting from construction and/or operation of the Project may exceed any of the following significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://www.valleyair.org/transportation/GAMAQI.pdf. The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.

1b) Operational Emissions

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://www.valleyair.org/transportation/GAMAQI.pdf.

Recommended Mitigation Measure: At a minimum, project related impacts on air quality should be reduced to levels of significance through incorporation of design elements such as the use of cleaner Heavy Heavy-Duty (HHD) trucks and vehicles, measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at: http://www.valleyair.org/transportation/Mitigation-Measures.pdf.

1c) Recommended Model for Quantifying Air Emissions

Project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

2) Health Risk Screening/Assessment

The City should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.
To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):
A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

To assist land use agencies and project proponents with Prioritization analyses, the District has created a prioritization calculator based on the aforementioned CAPCOA guidelines, which can be found here:
http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION-CALCULATOR.xls

Health Risk Assessment:
Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA. This step will ensure all components are addressed when performing the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the project-related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk, or 1.0 for either the Acute or Chronic Hazard Indices.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at https://ww3.arb.ca.gov/ch/handbook.pdf.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website: www.valleyair.org/ceqa.

4) Voluntary Emission Reduction Agreement

Criteria pollutant emissions may result in emissions exceeding the District's significance thresholds, potentially resulting in a significant impact on air quality. When a project is expected to have a significant impact, the District recommends the EIR also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.
A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document includes an assessment of the feasibility of implementing a VERA.

5) Vegetative Barriers and Urban Greening

The District suggests the City consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residential units).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the update of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant, low-maintenance greenery.

6) Clean Lawn and Garden Equipment in the Community

Since the Project consists of residential development, gas-powered residential lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: http://www.valleyair.org/grants/cgym.htm and http://valleyair.org/grants/cgym-commercial.htm.

7) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources,

the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

8) Electric Vehicle Chargers

To support and accelerate the installation of electric vehicle charging equipment and development of required infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District recommends that the City and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit www.valleyair.org/grants/chargeup.htm for more information.

9) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

9a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

9b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receives a project-level discretionary approval from a public agency and will equal or exceed 50 residential dwelling units.

The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design.

Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

The AIA application form can be found online at: http://www.valleyair.org/ISR/ISRFormsAndApplications.htm.

District staff is available to provide assistance, and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

9c) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

The Project will be subject to District Rule 4002 since the Project will include demolition and removal of existing structures. To protect the public from uncontrolled emissions of asbestos, this rule requires a thorough inspection for

asbestos to be conducted before any regulated facility is demolished or renovated. Any asbestos present must be handled in accordance with established work practice standards and disposal requirements.

Information on how to comply with District Rule 4002 can be found online at: http://www.valleyair.org/busind/comply/asbestosbultn.htm.

9d) District Rule 4601 (Architectural Coatings)

The Project will be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: http://www.valleyair.org/rules/currntrules/r4601.pdf

9e) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.*

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at: https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx

Information about District Regulation VIII can be found online at: http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm

9f) District Rule 4901 - Wood Burning Fireplaces and Heaters

The purpose of this rule is to limit emissions of carbon monoxide and particulate matter from wood burning fireplaces, wood burning heaters, and outdoor wood burning devices. This rule establishes limitations on the installation of new wood burning fireplaces and wood burning heaters. Specifically, at elevations below 3,000 feet in areas with natural gas service, no person shall install a wood burning fireplace, low mass fireplace, masonry heater, or wood burning heater.

Information about District Rule 4901 can be found online at: http://valleyair.org/rule4901/

9g) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

10) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Cherie Clark by e-mail at Cherie.Clark@valleyair.org or by phone at (559) 230-5940.

Sincerely,

Brian Clements
Director of Permit Services

For: Mark Montelongo
Program Manager

This page intentionally left blank

APPENDIX C

LAND EVALUATION AND SITE ASSESSMENT MODEL

This page intentionally left blank

CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: August 22, 2023

TO: Lily Cha-Haydostian, MPA, AICP, Senior Planner
City of Clovis Planning Division
1033 Fifth Street
Clovis, CA 93612

FROM: Pamela Reading, Principal, LSA
Ashley Honer, Environmental Planner, LSA

SUBJECT: Land Evaluation and Site Assessment Model (LESA Model) for the Tract Map (TM) 6343 Project

Wilson Premier Homes, Inc. (project applicant) proposes to develop an approximately 71.54-acre project site into a 590-lot single-family residential development in the City of Clovis' Sphere of Influence (SOI) on Assessor's Parcel Numbers (APNs) 556-040-07S, -08S, and 556-030-14S. According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), 1.15 acres of the project site is designated as Prime Farmland, 3.41 acres is designated as Farmland of Statewide Importance, 35.40 acres is designated as Unique Farmland, and 31.56 acres is designated as Farmland of Local Importance. Therefore, the California Agricultural Land Evaluation and Site Assessment (LESA) model prepared by the California Department of Conservation (refer to Attachment A) was prepared to determine if the conversion of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance would constitute a significant impact to agricultural resources pursuant to California Environmental Quality Act (CEQA) Statute and Guidelines.

The information used to prepare the LESA Model was based on information obtained from the California Department of Conservation FMMP, the United States Department of Agriculture, the Natural Resources Conservation Service (NRCS), and Geographic information system (GIS) tools.

LESA is a term used to define an approach for rating the relative quality of land resources based on specific measurable features. The formulation of a California LESA Model is the result of Senate Bill 850 (Chapter 812/1993), which charged the Resource Agency (in consultation with the Governor's Office of Planning and Research) with developing an amendment to Appendix G of the State CEQA Guidelines concerning agricultural lands. Such an amendment is intended "to provide lead agencies with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process" (Public Resources Code [PRC] Section 21095). A LESA analysis is based on the definition of agricultural land contained in the State CEQA Guidelines, PRC Section 21060.1:

21060.1 (a) "Agricultural land" means prime farmland, farmland of statewide importance, or unique farmlands, as defined by the United States Department of Agriculture land inventory and monitoring criteria as modified for California.

21060.1 (b) In those areas of the state where lands have not been surveyed for the classifications specific in subdivision (a), "agricultural land" means land that meets the requirement of "prime agricultural land" as defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code [the Williamson Act].

The LESA Model is composed of a Land Evaluation (LE) portion, which measures soil quality, and the Site Assessment (SA) portion, which evaluates other factors that contribute to the site's agricultural importance (e.g., parcel size and on-farm investments). A Final LESA Score of 0 to 39 points is not considered significant. A final score between 40 to 59 points is considered significant only if the LE and SA subscores are each greater than or equal to 20 points. A final score between 60 to 79 points is considered significant unless either the LE or SA subscores is less than 20 points. A final score between 80 to 100 points is considered significant. The proposed project achieved a Final LESA Score of 44.77 points, with an LE subscore of 25.27 points and an SA subscore of 19.5 points. Because the SA subscore was below 20 points, the LESA model concluded that the conversion of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance associated with implementation of the proposed project would not result in a significant impact.

Attachments: A: LESA Model
B: Figures

ATTACHMENT A

LESA MODEL

Appendix A. California Agricultural LESA Worksheets

NOTES

The TM 6343 Project is an approximately 71.54-acre site located in the City of Clovis. Four soil types have been identified on the site: Atwater sandy loam (ArA), 0 to 3 percent slopes; Exeter sandy loam (Es); Ramona sandy loam (Ra); and Tujunga loamy sand (TzbA), 0 to 3 percent slopes (refer to Figure 1: Soils, at the end of the worksheets). The acreage of each soil type is divided by the total project acreage (71.54 acres) to determine the proportion of each. The Land Capability Classification (LCC) and Storie Index for the on-site soils were found on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey.

The LCCs for the four soil types are as follows: ArA is IVs, ES is IVs, Ra is IVc, and TzbA is IVs. The LCC value for nonirrigated land was used for each soil type as irrigation is not feasible at the project site under current conditions, as further discussed on page 4-A. For the LCC Scoring Table, the LCC point scores for all five soils is 40. The portion of each soil type represented is multiplied by its point score in Column E, and is summed to get a total LCC Score of 40 points, which is entered in box <1> of the Final LESA Score Sheet.

The Storie Index rating for the four soil types are as follows: ArA is 93, Es is 34, Ra is 95, and TzbA is 65. The Storie Index ratings are multiplied by the proportion for each soil type and Column H is summed to get a total Storie Index Score of 61.09 points which is then entered in box <2> of the Final LESA Score Sheet.

Calculation of the Land Evaluation (LE) Score

Part 1. Land Capability Classification (LCC) Score:

(1) Determine the total acreage of the project.
(2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-A.
(3) Calculate the total acres of each soil type and enter the amounts in **Column B**.
(4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.
(5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.
(6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

LCC Class	**I**	**IIe**	**IIs,w**	**IIIe**	**IIIs,w**	**IVe**	**IVs,w**	**V**	**VI**	**VII**	**VIII**
Points	**100**	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**	**0**

(7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.
(8) Sum the LCC scores in **Column F**.
(9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-A.

Part 2. Storie Index Score:

(1) Determine the Storie Index rating for each soil type and enter it in **Column G**.
(2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.
(3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.
(4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-A.

Land Evaluation Worksheet

Land Capability Classification (LCC) and Storie Index Scores

A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
ArA	2.5	0.04	IVs	40	1.6	93	3.72
Es	38.1	0.53	IVs	40	21.2	34	18.02
Ra	27.5	0.38	IVc	40	15.2	95	36.10
TzbA	3.4	0.05	IVs	40	2.0	65	3.25
Totals	71.5	(Must Sum to 1.0)		***LCC Total Score***	40	***Storie Index Total Score***	61.09

Site Assessment Worksheet 1.

Project Size Score

	I	J	K
	LCC Class I - II	LCC Class III	LCC Class IV - VIII
			71.5
Total Acres			71.5
Project Size Scores			20

Highest Project Size Score 20

LESA Worksheet (cont.)

NOTES

Column J - 71.5 acres of Class IV soils corresponds to a score of 20 points.

Calculation of the Site Assessment (SA) Score

Part 1. Project Size Score:.

(1) Using **Site Assessment Worksheet 1** provided on page 2-A, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).
(2) Sum **Column I** to determine the total amount of class I and II soils on the project site.
(3) Sum **Column J** to determine the total amount of class III soils on the project site.
(4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.
(5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

Project Size Scoring Table

Class I or II		**Class III**		**Class IV or Lower**	
Acreage	Points	Acreage	Points	Acreage	Points
>80	100	>160	100	>320	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
10<	0	20-39	30	40<	0
		10-19	10		
		10<	0		

(6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the **Final LESA Score Sheet** on page 10-A.

LESA Worksheet (cont.)

NOTES

Approximately 34 acres of the project site has an existing groundwater well that was previously used for agricultural irrigation but has experienced continued decline in groundwater and is no longer usable for irrigation. Since the well was rendered unusable for agricultural irrigation, the site has been used for dry farming relying only on rainfall for cattle grazing, and left fallow during dry months. This portion of the project site is located outside the Fresno Irrigation District (FID) boundary and is not legally entitled to receive surface water deliveries. Additionally, this portion of the project site is currently outside of the City of Clovis and not legally entitled to receive any municipal water deliveries. Therefore, a water resource availability score of 20 was used for this portion of the project site.

Approximately 37 acres of the project site does not have an existing water source for irrigation. The property boundary was modified in 2021. Prior to 2021, the parcel expanded to the west side of Enterprise Canal, which was inside the Fresno Irrigation District (FID) Boundary, and which supplied the parcel with surface water for agricultural production. However, following the change to the property line boundary, the 37 acres fell entirely outside of the FID boundary and was no longer legally entitled to receive surface water deliveries. Additionally, this portion of the project site is currently outside of the City of Clovis and is not legally entitled to receive any municipal water deliveries. Therefore, a water resource availability score of 20 was used for this portion of the project site.

Part 2. Water Resource Availability Score:

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified, and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 2. - Water Resources Availability

A	B	C	D	E
Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score (C x D)
1	Groundwater Well	0.48	20	9.6
2	None Available	0.52	20	10.4
3				
4				
5				
6				
		(Must Sum to 1.0)	***Total Water Resource Score***	20

Water Resource Availability Scoring Table

Option	Non-Drought Years			Drought Years			WATER RESOURCE SCORE
	RESTRICTIONS			RESTRICTIONS			
	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	
1	YES	NO	NO	YES	NO	NO	100
2	YES	NO	NO	YES	NO	YES	95
3	YES	NO	YES	YES	NO	YES	90
4	YES	NO	NO	YES	YES	NO	85
5	YES	NO	NO	YES	YES	YES	80
6	YES	YES	NO	YES	YES	NO	75
7	YES	YES	YES	YES	YES	YES	65
8	YES	NO	NO	NO	-- --	-- --	50
9	YES	NO	YES	NO	-- --	-- --	45
10	YES	YES	NO	NO	-- --	-- --	35
11	YES	YES	YES	NO	-- --	-- --	30
12	Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dryland production feasible						0

LESA Worksheet (cont.)

NOTES

As shown in Figure 2, the total acreage of the Zone of Influence (ZOI) is 575.41 acres and 463.82 acres of the ZOI are under agricultural production. This figure is based on information obtained from the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP). When calculating the total acreage of agricultural land within the ZOI, parcels that have been developed or are currently being developed with residential uses since the DOC published the FMMP data, as determined using publicly available maps such as Google Earth, were not included in the agricultural acreage. Based on this information, it was determined that 80 percent of the ZOI is under agricultural production. Therefore, the Surrounding Agricultural Land Score equates to 90 points.

Part 3. Surrounding Agricultural Land Use Score:

(1) Calculate the project's Zone of Influence (ZOI) as follows:
(a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.
(b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.
(c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.
(2) Sum the area of all parcels to determine the total acreage of the ZOI.
(3) Determine which parcels are in agricultural use and sum the areas of these parcels
(4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.
(5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

Surrounding Agricultural Land Scoring Table

Percent of ZOI in Agriculture	Surrounding Agricultural Land Score
90-100	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

(5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-A.

Site Assessment Worksheet 3.
Surrounding Agricultural Land and Surrounding Protected Resource Land

A	B	C	D	E	F	G
Zone of Influence						
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)	Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
575.41	463.82	16.04	80.60	2.79	90	0

LESA Worksheet (cont.)

NOTES

As shown in Figure 3, the total acreage of the ZOI is 575.41 acres and 16.04 acres of the ZOI is considered protected resource lands. Protected resource lands are defined as Williamson Act contracted lands; publicly owned lands maintained as park, forest, or watershed resources; and lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses.

As such, <40 percent of the ZOI is protected and the Protected Resource Lands Score equates to 0 points.

Part 4. Protected Resource Lands Score:

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

(1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.
(2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.
(3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.
(4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

Surrounding Protected Resource Land Scoring Table

Percent of ZOI Protected	Protected Resource Land Score
90-100	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

(5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-A.

LESA Worksheet (cont.)

NOTES

The component LE and SA factors have been entered into the Final LESA Score Sheet.

The LE factor scores are multiplied by the factor weights to determine the weighted score for each. The weighted LE factor scores are summed to determine the LE portion of the Final LESA score.

The SA factor scores are multiplied by the factor weights to determine the weighted score for each. The weighted SA factor scores are summed to determine the SA portion of the Final LESA score.

The LE and SA subtotals are summed to determine the Final LESA Score. The Final LESA Score for the proposed project is 44.77 points.

A Total LESA Score of 40 to 59 points is considered significant only if the LE and SA subscores are each greater than or equal to 20 points. The LE subtotal is more than 20 points (25.27) but the SA subtotal score is 19.5 points, which is less than 20 points. Therefore, the LESA Model concludes that the conversion of the agricultural land (Farmland of Statewide Importance) on the project site to a non-agricultural use would not result in a significant impact.

Final LESA Score Sheet

Calculation of the Final LESA Score:

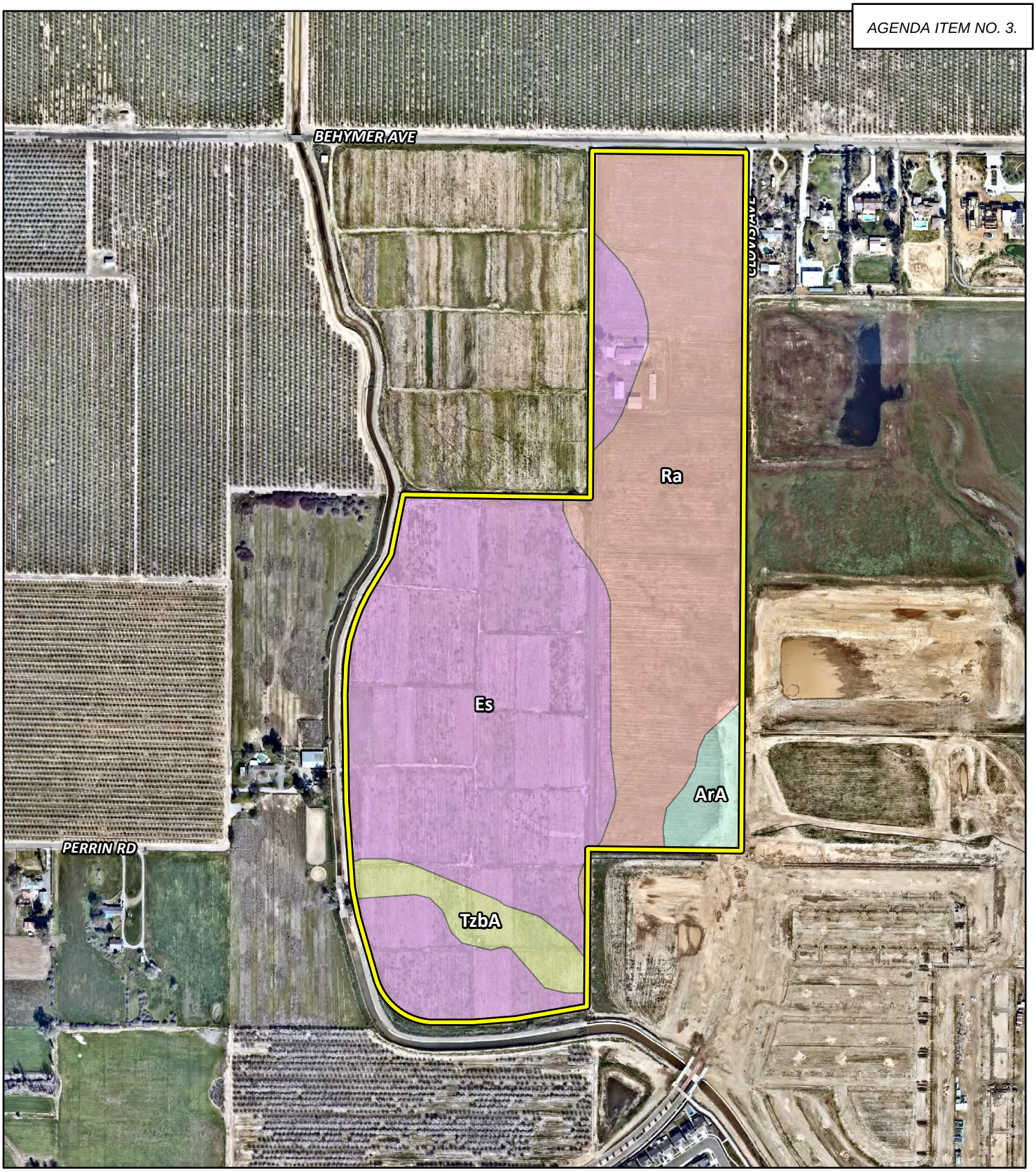
(1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
(2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
(3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
(4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
Land Capability Classification	<1> 40	0.25	10
Storie Index	<2> 61.09	0.25	15.27
LE Subtotal		***0.50***	25.27
SA Factors			
Project Size	<3> 20	0.15	3
Water Resource Availability	<4> 20	0.15	3
Surrounding Agricultural Land	<5> 90	0.15	13.5
Protected Resource Land	<6> 0	0.05	0
SA Subtotal		***0.50***	19.5
		Final LESA Score	44.77

For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.

ATTACHMENT B

FIGURES



LSA

Project Location (71.54 acres)

Soils

- ArA - Atwater sandy loam, 0 to 3 percent slopes (2.46 acres)
- Es - Exeter sandy loam (38.14 acres)
- Ra - Ramona sandy loam (27.54 acres)
- TzbA - Tujunga loamy sand, 0 to 3 percent slopes (3.41 acres)

N

0 250 500
FEET

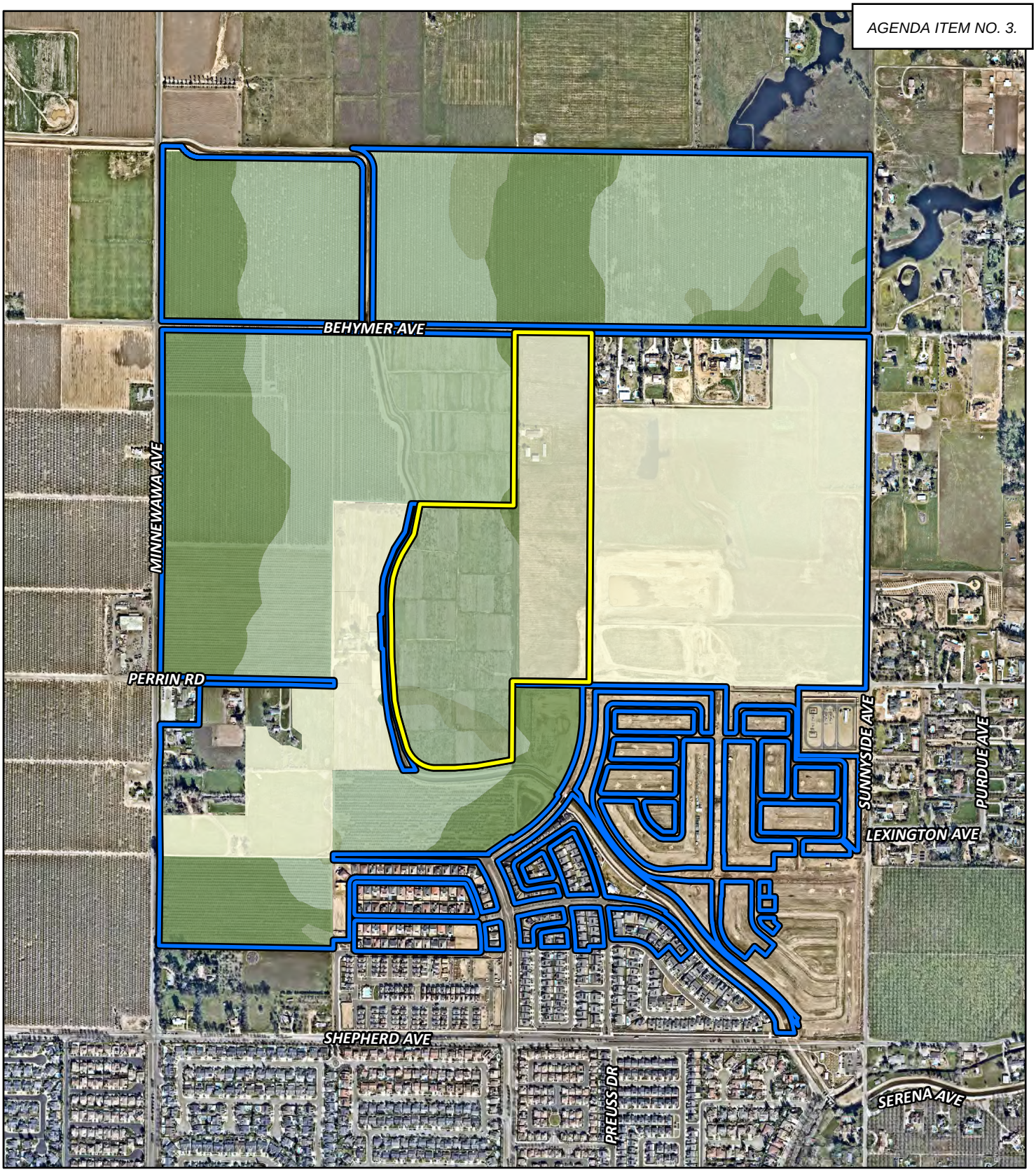
FIGURE 1

Tract Map 6343 Project

Soils

SOURCE: Nearmap (2023), USDA NRCS (2022)

J:\CIT2201\GIS\Pro\Tract Map 6343 Project\Tract Map 6343 Project.aprx (7/18/2023)



LSA

FIGURE 2

Project Location (71.54 acres)

Zone of Influence (575.41 acres)

Project Location Farmland

- Prime Farmland - 1.15 acres
- Farmland of Statewide Importance - 3.41 acres
- Unique Farmland - 35.40 acres
- Farmland of Local Importance - 31.56 acres

Zone of Influence Farmland

- Prime Farmland - 121.69 acres
- Farmland of Statewide Importance - 9.59 acres
- Unique Farmland - 184.40 acres
- Farmland of Local Importance - 148.14 acres

N

0 500 1000

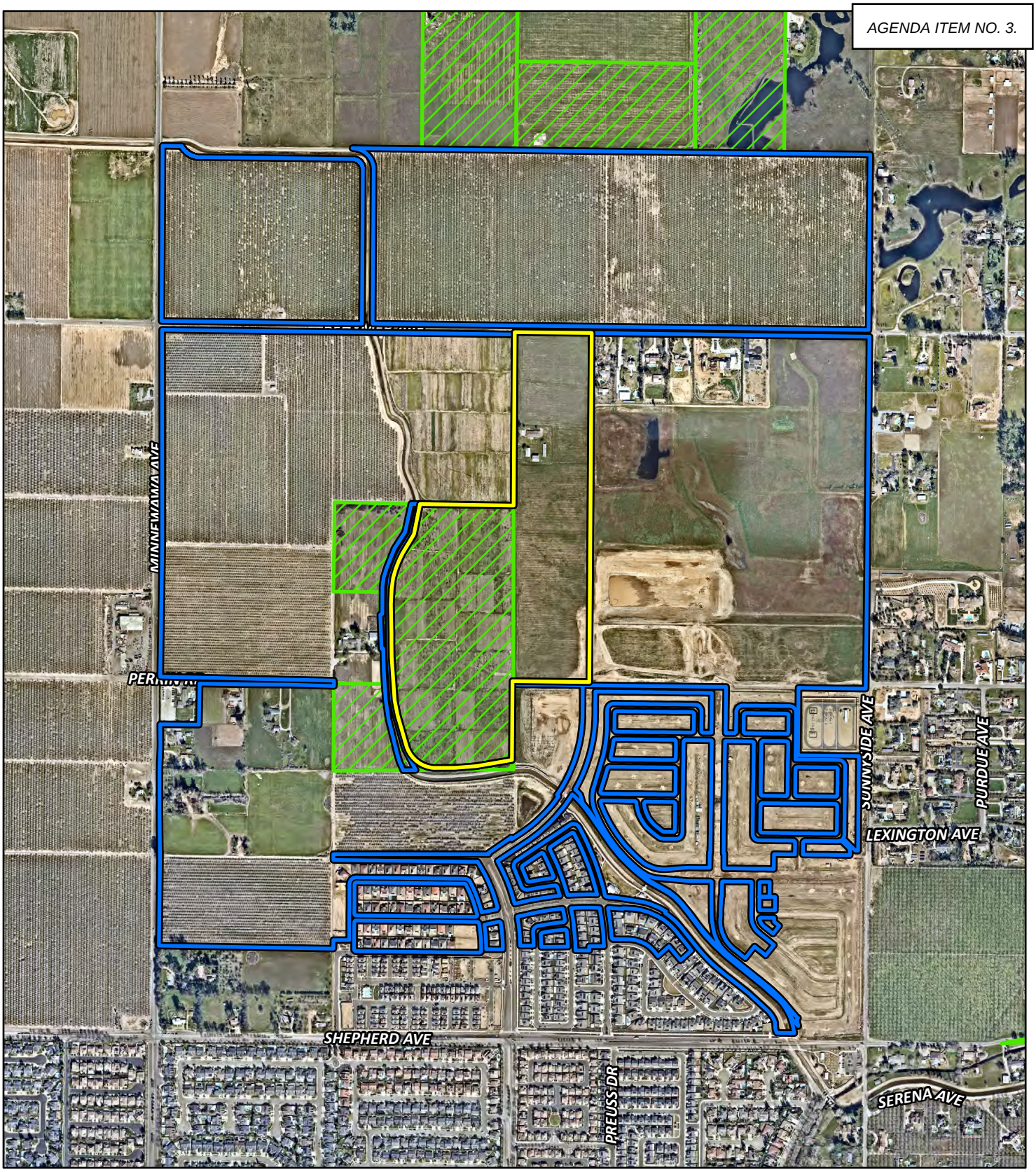
FEET

Tract Map 6343 Project

Zone of Influence Agricultural Lands

SOURCE: Nearmap (2023), California Department of Conservation (2018)

J:\CIT2201\GIS\Pro\Tract Map 6343 Project\Tract Map 6343 Project.aprx (7/18/2023)



LSA

Project Location (71.54 acres)
Zone of Influence (575.41 acres)
Williamson Act Contracted Lands

FIGURE 3

N

0 500 1000
FEET

SOURCE: Nearmap (2023), California Department of Conservation (2018)

J:\CIT2201\GIS\Pro\Tract Map 6343 Project\Tract Map 6343 Project.aprx (7/18/2023)

Tract Map 6343 Project

Zone of Influence Protected Resource Lands

This page intentionally left blank

APPENDIX D

CALEEMOD OUTPUT SHEETS

This page intentionally left blank

Tract Map 6343 Project Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.3. Construction Emissions by Year, Mitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

3.2. Demolition (2023) - Mitigated

3.3. Demolition (2024) - Unmitigated

3.4. Demolition (2024) - Mitigated

3.5. Site Preparation (2024) - Unmitigated

3.6. Site Preparation (2024) - Mitigated

3.7. Grading (2024) - Unmitigated

3.8. Grading (2024) - Mitigated

3.9. Building Construction (2024) - Unmitigated

3.10. Building Construction (2024) - Mitigated

3.11. Building Construction (2025) - Unmitigated

3.12. Building Construction (2025) - Mitigated

3.13. Building Construction (2026) - Unmitigated

3.14. Building Construction (2026) - Mitigated

3.15. Paving (2026) - Unmitigated

3.16. Paving (2026) - Mitigated

3.17. Architectural Coating (2026) - Unmitigated

3.18. Architectural Coating (2026) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.3.1. Mitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.4.1. Mitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.5.1. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Tract Map 6343 Project
Construction Start Date	12/4/2023
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	21.2
Location	36.87811891274711, -119.69891555916782
County	Fresno
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2569
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.11

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Single Family Housing	590	Dwelling Unit	68.7	1,150,500	65,776	0.00	1,888	—
Parking Lot	135	Space	0.50	0.00	0.00	0.00	—	—
Recreational Swimming Pool	8.00	1000sqft	1.25	8,745	0.00	0.00	—	—
City Park	1.00	Acre	0.32	0.00	13,930	13,930	—	—
Recreational Swimming Pool	9.00	1000sqft	0.77	9,985	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.10	4.97	9.66	0.03	0.08	19.8	19.8	0.08	10.1	10.1	4,185	0.10	0.65	4,391
Mit.	1.10	4.97	9.66	0.03	0.08	19.8	19.8	0.08	10.1	10.1	4,185	0.10	0.65	4,391
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.98	2.24	7.96	0.01	0.01	19.8	19.8	0.01	10.1	10.1	2,248	0.08	0.20	2,309
Mit.	0.98	2.24	7.96	0.01	0.01	19.8	19.8	0.01	10.1	10.1	2,248	0.08	0.20	2,309

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	1.78	5.28	0.01	0.02	5.07	5.09	0.02	2.17	2.19	1,543	0.05	0.20	1,607
Mit.	0.63	1.78	5.28	0.01	0.02	5.07	5.09	0.02	2.17	2.19	1,543	0.05	0.20	1,607
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.32	0.96	< 0.005	< 0.005	0.92	0.93	< 0.005	0.40	0.40	255	0.01	0.03	266
Mit.	0.12	0.32	0.96	< 0.005	< 0.005	0.92	0.93	< 0.005	0.40	0.40	255	0.01	0.03	266
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.05	4.97	9.59	0.03	0.08	19.8	19.8	0.08	10.1	10.1	4,185	0.10	0.65	4,391
2025	0.99	1.90	8.82	0.01	0.01	1.42	1.43	0.01	0.34	0.35	2,205	0.06	0.19	2,269
2026	1.10	1.90	9.66	0.01	0.01	1.66	1.67	0.01	0.40	0.41	2,423	0.07	0.20	2,490
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.07	0.19	0.57	< 0.005	< 0.005	0.23	0.23	< 0.005	0.05	0.05	189	0.01	0.02	195
2024	0.92	2.24	7.91	0.01	0.01	19.8	19.8	0.01	10.1	10.1	2,098	0.08	0.19	2,155
2025	0.87	2.10	7.29	0.01	0.01	1.42	1.43	0.01	0.34	0.35	2,057	0.07	0.19	2,114
2026	0.98	2.12	7.96	0.01	0.01	1.66	1.67	0.01	0.40	0.41	2,248	0.08	0.20	2,309
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	< 0.005	0.01	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	10.5	< 0.005	< 0.005	10.9
2024	0.27	1.78	2.38	0.01	0.02	5.07	5.09	0.02	2.17	2.19	1,543	0.05	0.20	1,607
2025	0.63	1.43	5.28	< 0.005	0.01	1.00	1.01	0.01	0.24	0.25	1,499	0.05	0.13	1,542
2026	0.44	0.87	3.54	< 0.005	< 0.005	0.72	0.72	< 0.005	0.17	0.18	1,000	0.03	0.08	1,028
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.74	< 0.005	< 0.005	1.80
2024	0.05	0.32	0.43	< 0.005	< 0.005	0.92	0.93	< 0.005	0.40	0.40	255	0.01	0.03	266
2025	0.12	0.26	0.96	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	248	0.01	0.02	255
2026	0.08	0.16	0.65	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	166	0.01	0.01	170

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.05	4.97	9.59	0.03	0.08	19.8	19.8	0.08	10.1	10.1	4,185	0.10	0.65	4,391
2025	0.99	1.90	8.82	0.01	0.01	1.42	1.43	0.01	0.34	0.35	2,205	0.06	0.19	2,269
2026	1.10	1.90	9.66	0.01	0.01	1.66	1.67	0.01	0.40	0.41	2,423	0.07	0.20	2,490
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.07	0.19	0.57	< 0.005	< 0.005	0.23	0.23	< 0.005	0.05	0.05	189	0.01	0.02	195
2024	0.92	2.24	7.91	0.01	0.01	19.8	19.8	0.01	10.1	10.1	2,098	0.08	0.19	2,155
2025	0.87	2.10	7.29	0.01	0.01	1.42	1.43	0.01	0.34	0.35	2,057	0.07	0.19	2,114
2026	0.98	2.12	7.96	0.01	0.01	1.66	1.67	0.01	0.40	0.41	2,248	0.08	0.20	2,309
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	0.01	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	10.5	< 0.005	< 0.005	10.9

2024	0.27	1.78	2.38	0.01	0.02	5.07	5.09	0.02	2.17	2.19	1,543	0.05	0.20	1,607
2025	0.63	1.43	5.28	< 0.005	0.01	1.00	1.01	0.01	0.24	0.25	1,499	0.05	0.13	1,542
2026	0.44	0.87	3.54	< 0.005	< 0.005	0.72	0.72	< 0.005	0.17	0.18	1,000	0.03	0.08	1,028
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.74	< 0.005	< 0.005	1.80
2024	0.05	0.32	0.43	< 0.005	< 0.005	0.92	0.93	< 0.005	0.40	0.40	255	0.01	0.03	266
2025	0.12	0.26	0.96	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	248	0.01	0.02	255
2026	0.08	0.16	0.65	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	166	0.01	0.01	170

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	60.4	24.0	278	0.80	19.7	10.5	30.2	18.9	1.85	20.8	46,629	55.4	1.85	48,687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	58.0	26.4	261	0.77	19.7	10.5	30.2	18.9	1.85	20.8	43,840	55.6	1.97	45,830
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	46.7	19.8	155	0.41	4.62	10.5	15.1	4.44	1.85	6.30	37,318	43.8	1.90	39,035
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.52	3.61	28.3	0.08	0.84	1.92	2.76	0.81	0.34	1.15	6,178	7.25	0.31	6,463

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	20.8	16.9	143	0.33	0.26	10.5	10.8	0.24	1.85	2.10	33,679	1.43	1.66	34,324
Area	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	3,092	0.50	0.06	3,123
Water	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Waste	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Total	60.4	24.0	278	0.80	19.7	10.5	30.2	18.9	1.85	20.8	46,629	55.4	1.85	48,687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.4	19.3	126	0.30	0.26	10.5	10.8	0.24	1.85	2.10	30,891	1.67	1.78	31,467
Area	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	3,092	0.50	0.06	3,123
Water	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Waste	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Total	58.0	26.4	261	0.77	19.7	10.5	30.2	18.9	1.85	20.8	43,840	55.6	1.97	45,830
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.7	18.2	125	0.31	0.26	10.5	10.8	0.24	1.85	2.09	31,670	1.54	1.72	32,270
Area	28.0	1.59	30.4	0.10	4.36	—	4.36	4.20	—	4.20	2,116	3.39	< 0.005	2,201
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	3,092	0.50	0.06	3,123
Water	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Waste	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33

Total	46.7	19.8	155	0.41	4.62	10.5	15.1	4.44	1.85	6.30	37,318	43.8	1.90	39,035
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.41	3.32	22.7	0.06	0.05	1.92	1.96	0.04	0.34	0.38	5,243	0.26	0.28	5,343
Area	5.11	0.29	5.55	0.02	0.80	—	0.80	0.77	—	0.77	350	0.56	< 0.005	364
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	512	0.08	0.01	517
Water	—	—	—	—	—	—	—	—	—	—	17.2	0.81	0.02	43.2
Waste	—	—	—	—	—	—	—	—	—	—	55.4	5.54	0.00	194
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38
Total	8.52	3.61	28.3	0.08	0.84	1.92	2.76	0.81	0.34	1.15	6,178	7.25	0.31	6,463

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	20.8	16.9	143	0.33	0.26	10.5	10.8	0.24	1.85	2.10	33,679	1.43	1.66	34,324
Area	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	3,092	0.50	0.06	3,123
Water	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Waste	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Total	60.4	24.0	278	0.80	19.7	10.5	30.2	18.9	1.85	20.8	46,629	55.4	1.85	48,687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.4	19.3	126	0.30	0.26	10.5	10.8	0.24	1.85	2.10	30,891	1.67	1.78	31,467
Area	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	3,092	0.50	0.06	3,123

Water	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Waste	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Total	58.0	26.4	261	0.77	19.7	10.5	30.2	18.9	1.85	20.8	43,840	55.6	1.97	45,830
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.7	18.2	125	0.31	0.26	10.5	10.8	0.24	1.85	2.09	31,670	1.54	1.72	32,270
Area	28.0	1.59	30.4	0.10	4.36	—	4.36	4.20	—	4.20	2,116	3.39	< 0.005	2,201
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	3,092	0.50	0.06	3,123
Water	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Waste	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Total	46.7	19.8	155	0.41	4.62	10.5	15.1	4.44	1.85	6.30	37,318	43.8	1.90	39,035
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.41	3.32	22.7	0.06	0.05	1.92	1.96	0.04	0.34	0.38	5,243	0.26	0.28	5,343
Area	5.11	0.29	5.55	0.02	0.80	—	0.80	0.77	—	0.77	350	0.56	< 0.005	364
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	512	0.08	0.01	517
Water	—	—	—	—	—	—	—	—	—	—	17.2	0.81	0.02	43.2
Waste	—	—	—	—	—	—	—	—	—	—	55.4	5.54	0.00	194
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38
Total	8.52	3.61	28.3	0.08	0.84	1.92	2.76	0.81	0.34	1.15	6,178	7.25	0.31	6,463

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.12	0.12	—	0.02	0.02	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.54	0.00	0.00	0.08	0.08	0.00	0.02	0.02	84.1	0.01	< 0.005	85.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	105	< 0.005	0.02	110
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.78	< 0.005	< 0.005	4.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.74	< 0.005	< 0.005	6.01

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.79	< 0.005	< 0.005	0.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.95	< 0.005	< 0.005	1.00

3.2. Demolition (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.12	0.12	—	0.02	0.02	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.54	0.00	0.00	0.08	0.08	0.00	0.02	0.02	84.1	0.01	< 0.005	85.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	105	< 0.005	0.02	110
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.78	< 0.005	< 0.005	4.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.74	< 0.005	< 0.005	6.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.79	< 0.005	< 0.005	0.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.95	< 0.005	< 0.005	1.00

3.3. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.12	0.12	—	0.02	0.02	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Demolition	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.49	0.00	0.00	0.08	0.08	0.00	0.02	0.02	82.4	< 0.005	< 0.005	83.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.13	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	103	< 0.005	0.02	108
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	11.4	< 0.005	< 0.005	11.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.7	< 0.005	< 0.005	14.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.88	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.27	< 0.005	< 0.005	2.38

3.4. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.12	0.12	—	0.02	0.02	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.49	0.00	0.00	0.08	0.08	0.00	0.02	0.02	82.4	< 0.005	< 0.005	83.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.13	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	103	< 0.005	0.02	108
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	11.4	< 0.005	< 0.005	11.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.7	< 0.005	< 0.005	14.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.88	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.27	< 0.005	< 0.005	2.38

3.5. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	2.15	2.15	—	1.11	1.11	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.04	0.71	0.00	0.00	0.10	0.10	0.00	0.02	0.02	108	0.01	< 0.005	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.57	0.00	0.00	0.10	0.10	0.00	0.02	0.02	96.2	< 0.005	< 0.005	97.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.9	< 0.005	< 0.005	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.81	< 0.005	< 0.005	1.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	2.15	2.15	—	1.11	1.11	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.04	0.71	0.00	0.00	0.10	0.10	0.00	0.02	0.02	108	0.01	< 0.005	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.57	0.00	0.00	0.10	0.10	0.00	0.02	0.02	96.2	< 0.005	< 0.005	97.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.9	< 0.005	< 0.005	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.81	< 0.005	< 0.005	1.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	9.23	9.23	—	3.66	3.66	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	2.28	2.28	—	0.90	0.90	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	0.42	0.42	—	0.16	0.16	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.81	0.00	0.00	0.11	0.11	0.00	0.03	0.03	124	0.01	0.01	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	4.92	1.17	0.03	0.08	1.06	1.13	0.08	0.29	0.36	4,061	0.09	0.64	4,265
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	28.1	< 0.005	< 0.005	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.27	0.29	0.01	0.02	0.26	0.28	0.02	0.07	0.09	1,002	0.02	0.16	1,050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.65	< 0.005	< 0.005	4.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.23	0.05	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	166	< 0.005	0.03	174

3.8. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	9.23	9.23	—	3.66	3.66	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	2.28	2.28	—	0.90	0.90	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	0.42	0.42	—	0.16	0.16	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.81	0.00	0.00	0.11	0.11	0.00	0.03	0.03	124	0.01	0.01	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	4.92	1.17	0.03	0.08	1.06	1.13	0.08	0.29	0.36	4,061	0.09	0.64	4,265

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	28.1	< 0.005	< 0.005	28.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.27	0.29	0.01	0.02	0.26	0.28	0.02	0.07	0.09	1,002	0.02	0.16	1,050
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.65	< 0.005	< 0.005	4.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.23	0.05	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	166	< 0.005	0.03	174

3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01	0.55	8.94	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,365	0.08	0.06	1,389
Vendor	0.05	1.45	0.65	0.01	0.01	0.22	0.23	0.01	0.06	0.07	886	0.02	0.13	927
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.69	7.24	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,211	0.06	0.06	1,229
Vendor	0.04	1.54	0.68	0.01	0.01	0.22	0.23	0.01	0.06	0.07	888	0.02	0.13	926
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.13	1.64	0.00	0.00	0.26	0.26	0.00	0.06	0.06	280	0.02	0.01	285
Vendor	0.01	0.34	0.15	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	198	< 0.005	0.03	207
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.02	0.30	0.00	0.00	0.05	0.05	0.00	0.01	0.01	46.3	< 0.005	< 0.005	47.1
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	32.7	< 0.005	< 0.005	34.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01	0.55	8.94	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,365	0.08	0.06	1,389
Vendor	0.05	1.45	0.65	0.01	0.01	0.22	0.23	0.01	0.06	0.07	886	0.02	0.13	927
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.69	7.24	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,211	0.06	0.06	1,229
Vendor	0.04	1.54	0.68	0.01	0.01	0.22	0.23	0.01	0.06	0.07	888	0.02	0.13	926
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.13	1.64	0.00	0.00	0.26	0.26	0.00	0.06	0.06	280	0.02	0.01	285
Vendor	0.01	0.34	0.15	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	198	< 0.005	0.03	207
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.02	0.30	0.00	0.00	0.05	0.05	0.00	0.01	0.01	46.3	< 0.005	< 0.005	47.1

Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	32.7	< 0.005	< 0.005	34.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94	0.50	8.20	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,335	0.04	0.06	1,358
Vendor	0.05	1.40	0.62	0.01	0.01	0.22	0.23	0.01	0.06	0.07	870	0.02	0.13	911
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.83	0.61	6.64	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,185	0.05	0.06	1,204
Vendor	0.04	1.49	0.65	0.01	0.01	0.22	0.23	0.01	0.06	0.07	872	0.02	0.13	910
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.39	4.82	0.00	0.00	0.84	0.84	0.00	0.20	0.20	877	0.03	0.04	891
Vendor	0.03	1.04	0.45	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	622	0.01	0.09	650
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	0.88	0.00	0.00	0.15	0.15	0.00	0.04	0.04	145	0.01	0.01	148
Vendor	0.01	0.19	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	103	< 0.005	0.02	108
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94	0.50	8.20	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,335	0.04	0.06	1,358
Vendor	0.05	1.40	0.62	0.01	0.01	0.22	0.23	0.01	0.06	0.07	870	0.02	0.13	911
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.83	0.61	6.64	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,185	0.05	0.06	1,204
Vendor	0.04	1.49	0.65	0.01	0.01	0.22	0.23	0.01	0.06	0.07	872	0.02	0.13	910
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.39	4.82	0.00	0.00	0.84	0.84	0.00	0.20	0.20	877	0.03	0.04	891
Vendor	0.03	1.04	0.45	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	622	0.01	0.09	650
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	0.88	0.00	0.00	0.15	0.15	0.00	0.04	0.04	145	0.01	0.01	148
Vendor	0.01	0.19	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	103	< 0.005	0.02	108
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.45	7.54	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,308	0.04	0.06	1,330
Vendor	0.05	1.35	0.61	0.01	0.01	0.22	0.23	0.01	0.06	0.07	854	0.02	0.13	894
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.78	0.56	6.10	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,161	0.05	0.06	1,179
Vendor	0.04	1.45	0.63	0.01	0.01	0.22	0.23	0.01	0.06	0.07	855	0.02	0.13	894
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.21	2.66	0.00	0.00	0.51	0.51	0.00	0.12	0.12	515	0.02	0.02	524
Vendor	0.02	0.60	0.26	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	366	0.01	0.05	383
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.49	0.00	0.00	0.09	0.09	0.00	0.02	0.02	85.3	< 0.005	< 0.005	86.7
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	60.6	< 0.005	0.01	63.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.45	7.54	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,308	0.04	0.06	1,330
Vendor	0.05	1.35	0.61	0.01	0.01	0.22	0.23	0.01	0.06	0.07	854	0.02	0.13	894
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.78	0.56	6.10	0.00	0.00	1.20	1.20	0.00	0.28	0.28	1,161	0.05	0.06	1,179
Vendor	0.04	1.45	0.63	0.01	0.01	0.22	0.23	0.01	0.06	0.07	855	0.02	0.13	894
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.21	2.66	0.00	0.00	0.51	0.51	0.00	0.12	0.12	515	0.02	0.02	524
Vendor	0.02	0.60	0.26	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	366	0.01	0.05	383
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.49	0.00	0.00	0.09	0.09	0.00	0.02	0.02	85.3	< 0.005	< 0.005	86.7
Vendor	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	60.6	< 0.005	0.01	63.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.03	0.51	0.00	0.00	0.08	0.08	0.00	0.02	0.02	89.0	< 0.005	< 0.005	90.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.36	< 0.005	< 0.005	3.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.56	< 0.005	< 0.005	0.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.03	0.51	0.00	0.00	0.08	0.08	0.00	0.02	0.02	89.0	< 0.005	< 0.005	90.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.36	< 0.005	< 0.005	3.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.56	< 0.005	< 0.005	0.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.09	1.51	0.00	0.00	0.24	0.24	0.00	0.06	0.06	262	0.01	0.01	266
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.11	1.22	0.00	0.00	0.24	0.24	0.00	0.06	0.06	232	0.01	0.01	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.60	0.00	0.00	0.11	0.11	0.00	0.03	0.03	115	< 0.005	0.01	117
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	19.1	< 0.005	< 0.005	19.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.09	1.51	0.00	0.00	0.24	0.24	0.00	0.06	0.06	262	0.01	0.01	266
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.11	1.22	0.00	0.00	0.24	0.24	0.00	0.06	0.06	232	0.01	0.01	236
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.60	0.00	0.00	0.11	0.11	0.00	0.03	0.03	115	< 0.005	0.01	117
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	19.1	< 0.005	< 0.005	19.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	20.8	16.9	143	0.33	0.26	10.5	10.8	0.24	1.85	2.10	33,679	1.43	1.66	34,324
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	20.8	16.9	143	0.33	0.26	10.5	10.8	0.24	1.85	2.10	33,679	1.43	1.66	34,324
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	18.4	19.3	126	0.30	0.26	10.5	10.8	0.24	1.85	2.10	30,891	1.67	1.78	31,467
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	18.4	19.3	126	0.30	0.26	10.5	10.8	0.24	1.85	2.10	30,891	1.67	1.78	31,467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	3.41	3.32	22.8	0.06	0.05	1.92	1.96	0.04	0.34	0.38	5,245	0.26	0.28	5,344

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	-1.26	> -0.005	> -0.005	-1.28
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.41	3.32	22.7	0.06	0.05	1.92	1.96	0.04	0.34	0.38	5,243	0.26	0.28	5,343

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	20.8	16.9	143	0.33	0.26	10.5	10.8	0.24	1.85	2.10	33,679	1.43	1.66	34,324
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	20.8	16.9	143	0.33	0.26	10.5	10.8	0.24	1.85	2.10	33,679	1.43	1.66	34,324
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	18.4	19.3	126	0.30	0.26	10.5	10.8	0.24	1.85	2.10	30,891	1.67	1.78	31,467
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	18.4	19.3	126	0.30	0.26	10.5	10.8	0.24	1.85	2.10	30,891	1.67	1.78	31,467
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	3.41	3.32	22.8	0.06	0.05	1.92	1.96	0.04	0.34	0.38	5,245	0.26	0.28	5,344
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	-1.26	> -0.005	> -0.005	-1.28
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.41	3.32	22.7	0.06	0.05	1.92	1.96	0.04	0.34	0.38	5,243	0.26	0.28	5,343

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3,082	0.50	0.06	3,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	10.7	< 0.005	< 0.005	10.8

Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	3,092	0.50	0.06	3,123
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3,082	0.50	0.06	3,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	10.7	< 0.005	< 0.005	10.8
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	3,092	0.50	0.06	3,123
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	510	0.08	0.01	515
Parking Lot	—	—	—	—	—	—	—	—	—	—	1.77	< 0.005	< 0.005	1.78
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	512	0.08	0.01	517

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3,082	0.50	0.06	3,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	10.7	< 0.005	< 0.005	10.8
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	3,092	0.50	0.06	3,123
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3,082	0.50	0.06	3,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	10.7	< 0.005	< 0.005	10.8
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	3,092	0.50	0.06	3,123
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	510	0.08	0.01	515
Parking Lot	—	—	—	—	—	—	—	—	—	—	1.77	< 0.005	< 0.005	1.78

Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	512	0.08	0.01	517

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

City Park	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Hearths	14.9	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Consumer Products	24.6	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	14.9	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Consumer Products	24.6	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.61	0.29	5.55	0.02	0.80	—	0.80	0.77	—	0.77	350	0.56	< 0.005	364
Consumer Products	4.50	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	0.29	5.55	0.02	0.80	—	0.80	0.77	—	0.77	350	0.56	< 0.005	364

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	14.9	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Consumer Products	24.6	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	14.9	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799

Consumer Products	24.6	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	39.6	7.07	135	0.47	19.4	—	19.4	18.7	—	18.7	9,418	15.1	0.01	9,799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.61	0.29	5.55	0.02	0.80	—	0.80	0.77	—	0.77	350	0.56	< 0.005	364
Consumer Products	4.50	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.11	0.29	5.55	0.02	0.80	—	0.80	0.77	—	0.77	350	0.56	< 0.005	364

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	99.4	4.68	0.11	250
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	4.14	0.20	< 0.005	10.5
City Park	—	—	—	—	—	—	—	—	—	—	0.57	< 0.005	< 0.005	0.58
Total	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	99.4	4.68	0.11	250
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	4.14	0.20	< 0.005	10.5
City Park	—	—	—	—	—	—	—	—	—	—	0.57	< 0.005	< 0.005	0.58
Total	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	16.5	0.77	0.02	41.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.69	0.03	< 0.005	1.74
City Park	—	—	—	—	—	—	—	—	—	—	0.10	< 0.005	< 0.005	0.10
Total	—	—	—	—	—	—	—	—	—	—	17.2	0.81	0.02	43.2

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	99.4	4.68	0.11	250
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00

Recreationa Swimming Pool	—	—	—	—	—	—	—	—	—	—	4.14	0.20	< 0.005	10.5
City Park	—	—	—	—	—	—	—	—	—	—	0.57	< 0.005	< 0.005	0.58
Total	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	99.4	4.68	0.11	250
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreationa l Swimming Pool	—	—	—	—	—	—	—	—	—	—	4.14	0.20	< 0.005	10.5
City Park	—	—	—	—	—	—	—	—	—	—	0.57	< 0.005	< 0.005	0.58
Total	—	—	—	—	—	—	—	—	—	—	104	4.88	0.12	261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	16.5	0.77	0.02	41.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreationa l Swimming Pool	—	—	—	—	—	—	—	—	—	—	0.69	0.03	< 0.005	1.74
City Park	—	—	—	—	—	—	—	—	—	—	0.10	< 0.005	< 0.005	0.10
Total	—	—	—	—	—	—	—	—	—	—	17.2	0.81	0.02	43.2

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	282	28.2	0.00	988
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	52.2	5.22	0.00	183
City Park	—	—	—	—	—	—	—	—	—	—	0.05	< 0.005	0.00	0.16
Total	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	282	28.2	0.00	988
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	52.2	5.22	0.00	183
City Park	—	—	—	—	—	—	—	—	—	—	0.05	< 0.005	0.00	0.16
Total	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	46.8	4.67	0.00	164
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00

Recreational	—	—	—	—	—	—	—	—	—	—	8.65	0.86	0.00	30.2
City Park	—	—	—	—	—	—	—	—	—	—	0.01	< 0.005	0.00	0.03
Total	—	—	—	—	—	—	—	—	—	—	55.4	5.54	0.00	194

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	282	28.2	0.00	988
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	52.2	5.22	0.00	183
City Park	—	—	—	—	—	—	—	—	—	—	0.05	< 0.005	0.00	0.16
Total	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	282	28.2	0.00	988
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	52.2	5.22	0.00	183
City Park	—	—	—	—	—	—	—	—	—	—	0.05	< 0.005	0.00	0.16

Total	—	—	—	—	—	—	—	—	—	—	335	33.5	0.00	1,171
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	46.8	4.67	0.00	164
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	8.65	0.86	0.00	30.2
City Park	—	—	—	—	—	—	—	—	—	—	0.01	< 0.005	0.00	0.03
Total	—	—	—	—	—	—	—	—	—	—	55.4	5.54	0.00	194

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	8.24
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	8.24
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	1.36
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	8.24
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	8.24
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	8.33
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	1.36
Recreational Swimming Pool	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1.38

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	12/4/2023	3/8/2024	5.00	70.0	—
Site Preparation	Site Preparation	3/11/2024	5/4/2024	5.00	40.0	—
Grading	Grading	5/6/2024	9/7/2024	5.00	90.0	—
Building Construction	Building Construction	9/9/2024	8/7/2026	5.00	500	—
Paving	Paving	8/10/2026	8/29/2026	5.00	15.0	—
Architectural Coating	Architectural Coating	1/5/2026	9/4/2026	5.00	175	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 2	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 2	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 2	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37

Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 2	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 2	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 2	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 2	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 2	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 2	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 2	2.00	8.00	36.0	0.38

Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 2	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 2	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	7.70	LDA,LDT1,LDT2
Demolition	Vendor	—	4.00	HHDT,MHDT
Demolition	Hauling	1.44	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	56.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	220	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	66.1	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	44.1	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	7.70	LDA,LDT1,LDT2
Demolition	Vendor	—	4.00	HHDT,MHDT

Demolition	Hauling	1.44	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	56.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	220	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	66.1	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	44.1	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	8,714	—
Site Preparation	0.00	0.00	60.0	0.00	—
Grading	41,000	0.00	270	0.00	—
Paving	0.00	0.00	0.00	0.00	7.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	6.50	0%
Parking Lot	0.50	100%
Recreational Swimming Pool	0.00	0%
City Park	0.00	0%
Recreational Swimming Pool	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	5,564	5,564	5,564	2,030,750	37,956	37,956	37,956	13,853,860
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	-8.00	0.00	-417	0.00	-64.2	0.00	-3,348
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	5,564	5,564	5,564	2,030,750	37,956	37,956	37,956	13,853,860
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	-8.00	0.00	-417	0.00	-64.2	0.00	-3,348

City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	295
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	295
Conventional Wood Stoves	0
Catalytic Wood Stoves	30
Non-Catalytic Wood Stoves	30
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	295
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	295
Conventional Wood Stoves	0
Catalytic Wood Stoves	30
Non-Catalytic Wood Stoves	30
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
—	—	—	—	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	5,514,483	204	0.0330	0.0040	0.00

Parking Lot	19,079	204	0.0330	0.0040	0.00
Recreational Swimming Pool	0.00	204	0.0330	0.0040	0.00
City Park	0.00	204	0.0330	0.0040	0.00
Recreational Swimming Pool	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	5,514,483	204	0.0330	0.0040	0.00
Parking Lot	19,079	204	0.0330	0.0040	0.00
Recreational Swimming Pool	0.00	204	0.0330	0.0040	0.00
City Park	0.00	204	0.0330	0.0040	0.00
Recreational Swimming Pool	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	23,774,640	1,103,563
Parking Lot	0.00	0.00
Recreational Swimming Pool	473,145	0.00
City Park	0.00	424,933
Recreational Swimming Pool	532,288	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	23,774,640	1,103,563

Parking Lot	0.00	0.00
Recreational Swimming Pool	473,145	0.00
City Park	0.00	424,933
Recreational Swimming Pool	532,288	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	524	—
Parking Lot	0.00	—
Recreational Swimming Pool	45.6	—
City Park	0.09	—
Recreational Swimming Pool	51.3	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	524	—
Parking Lot	0.00	—
Recreational Swimming Pool	45.6	—
City Park	0.09	—
Recreational Swimming Pool	51.3	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

8. User Changes to Default Data

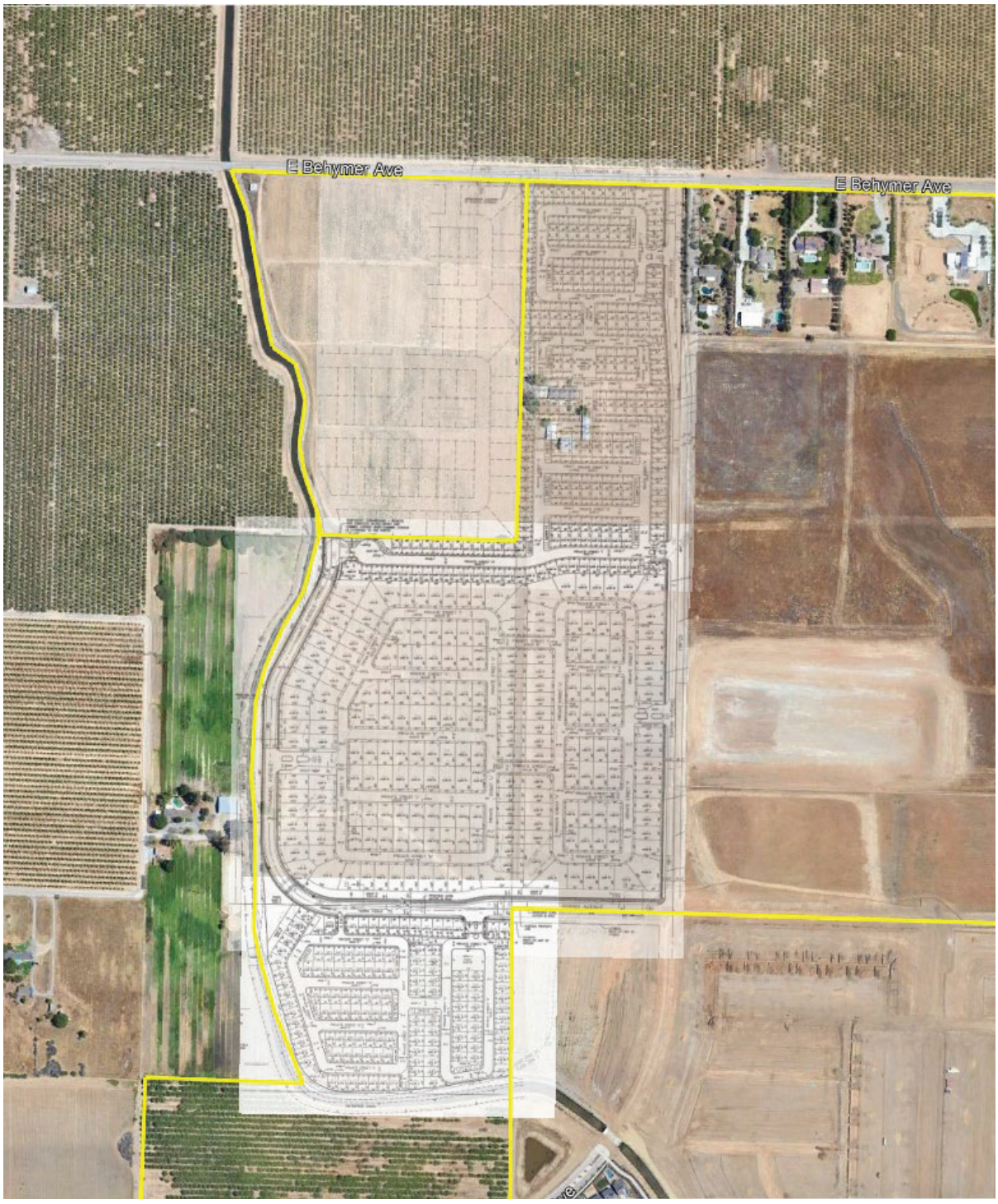
Screen	Justification
Land Use	Project proposed to build 590 single homes with 2 community pools and recreational areas as well as a community park in a 71.54 acre site
Construction: Construction Phases	Construction will occur over 3 phases, starting in December 2023 and ending in 33 months. Construction phases will occur concurrently. Building construction and architectural phases overlap.
Construction: Off-Road Equipment	Default equipment with tier 2 engine
Operations: Vehicle Data	Based on a trip generation of 5,564 average daily trips
Operations: Energy Use	The proposed project would not include natural gas

APPENDIX E

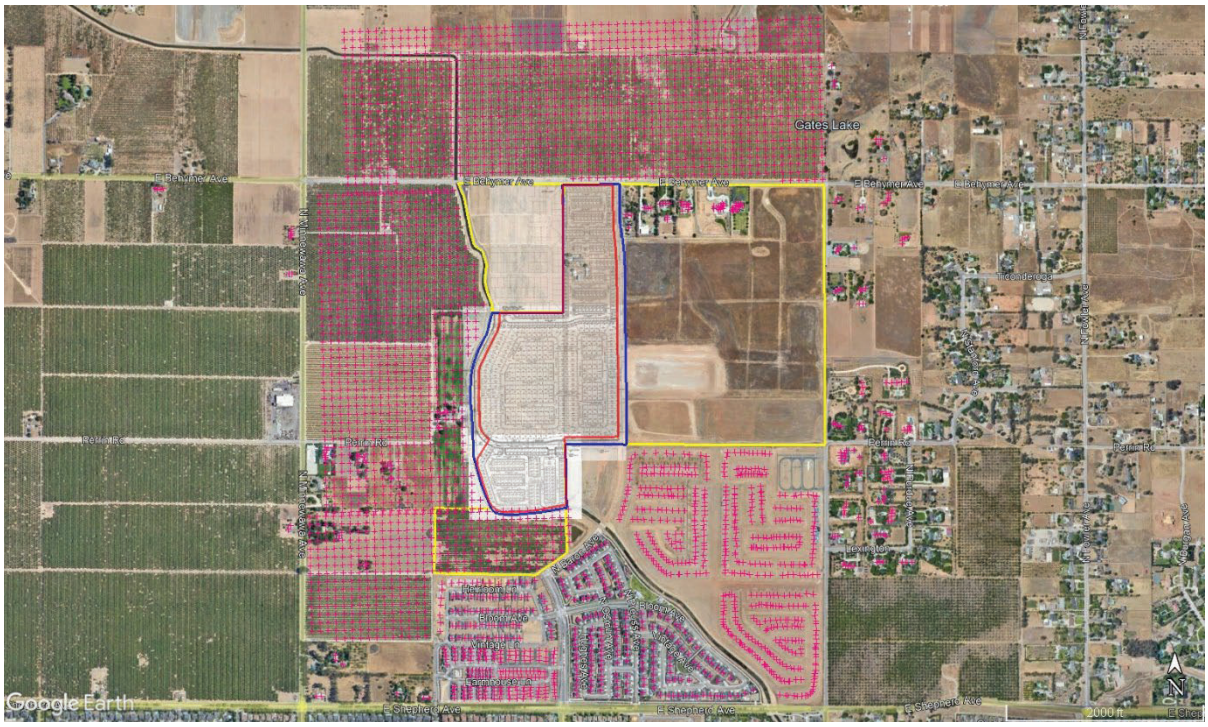
HEALTH RISK ASSESSMENT

This page intentionally left blank

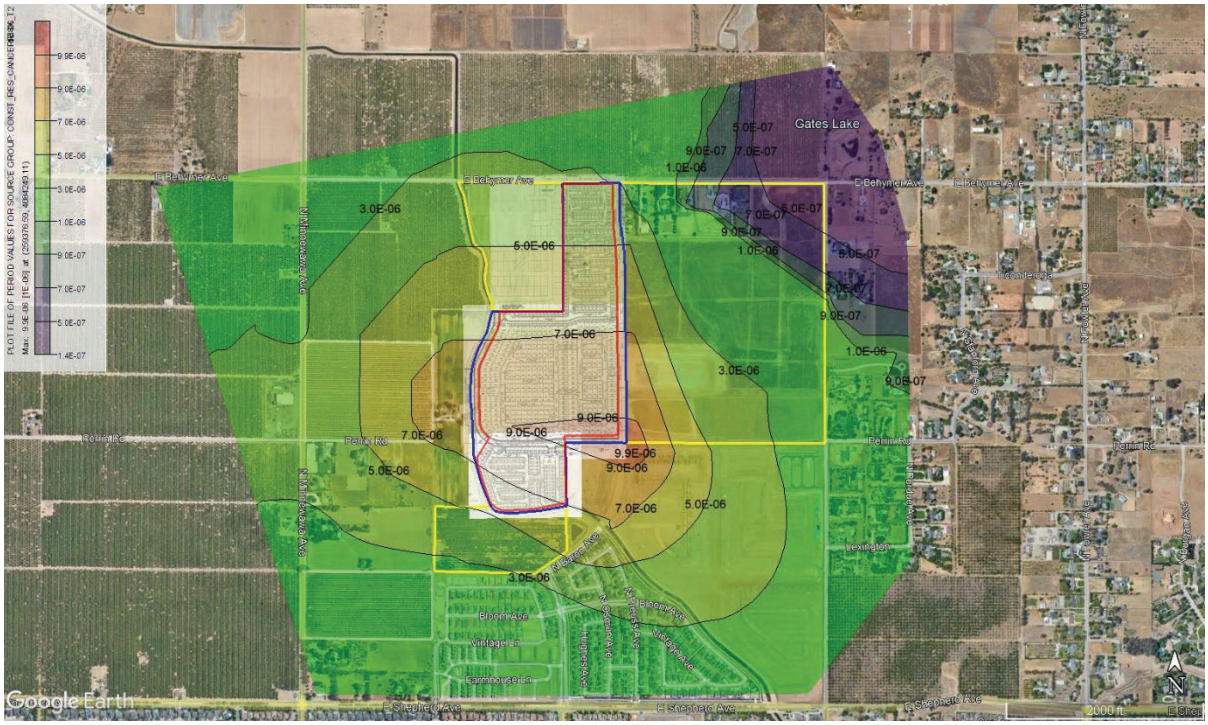
Project Location



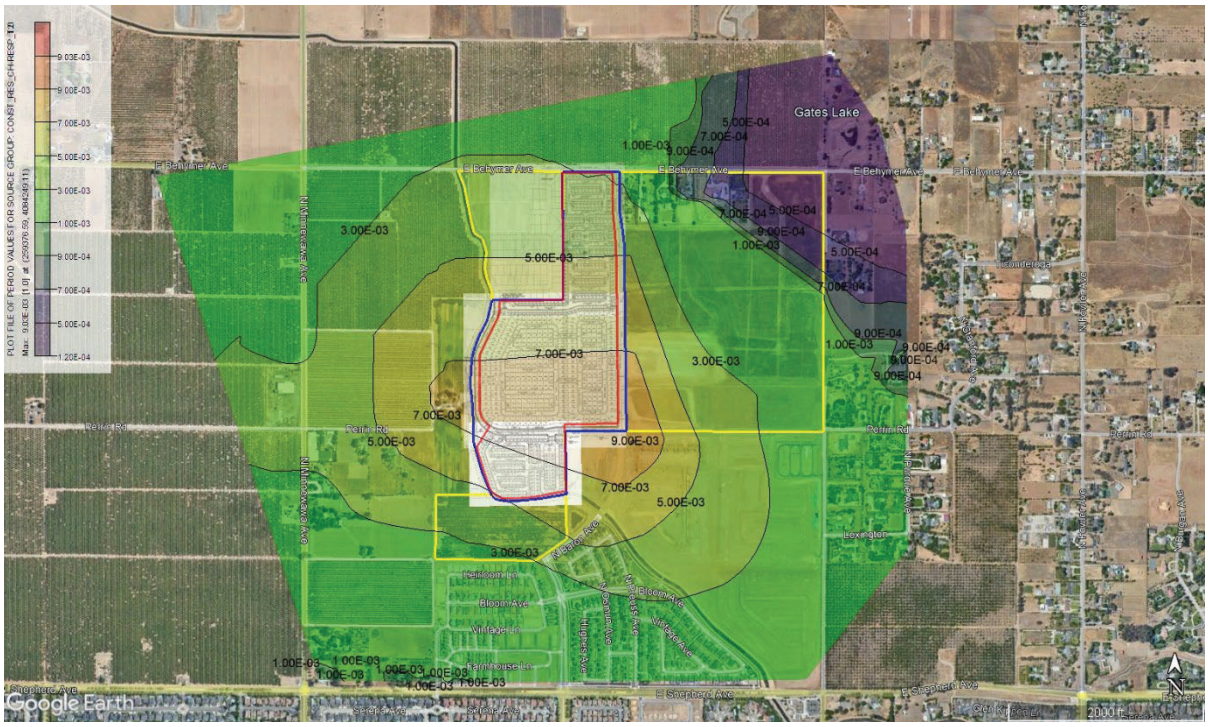
Receptor Grid



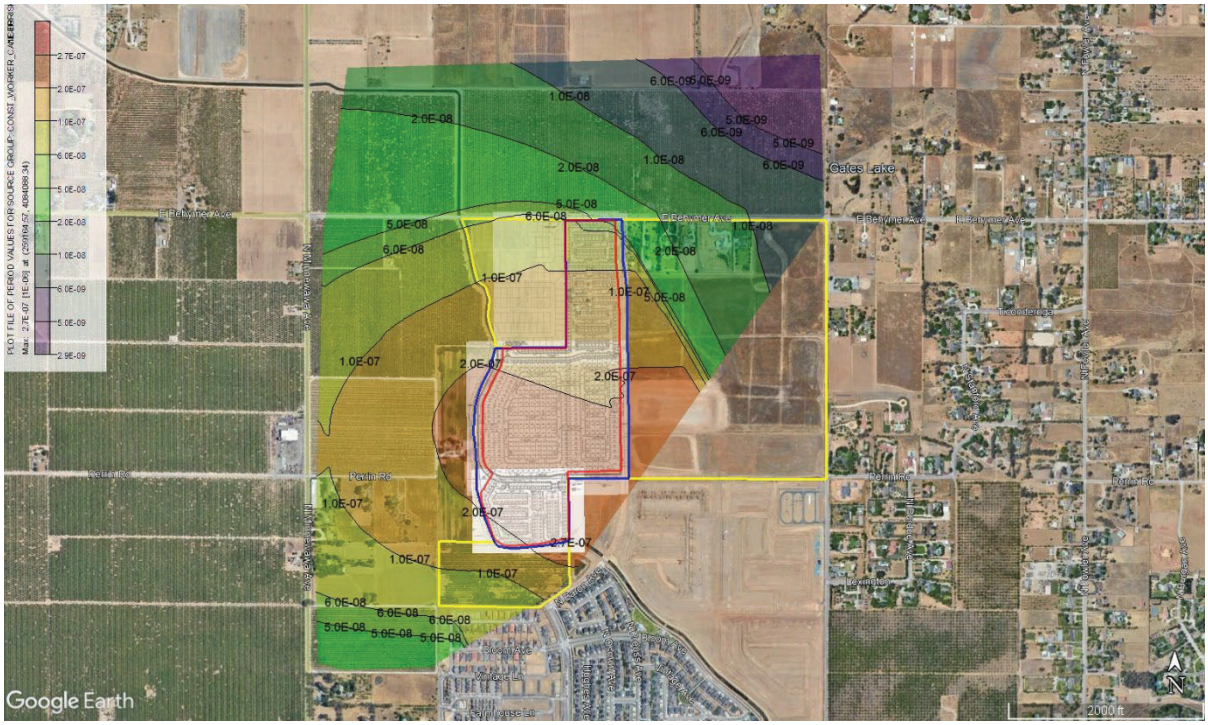
Construction Cancer Risk – Sensitive Receptor



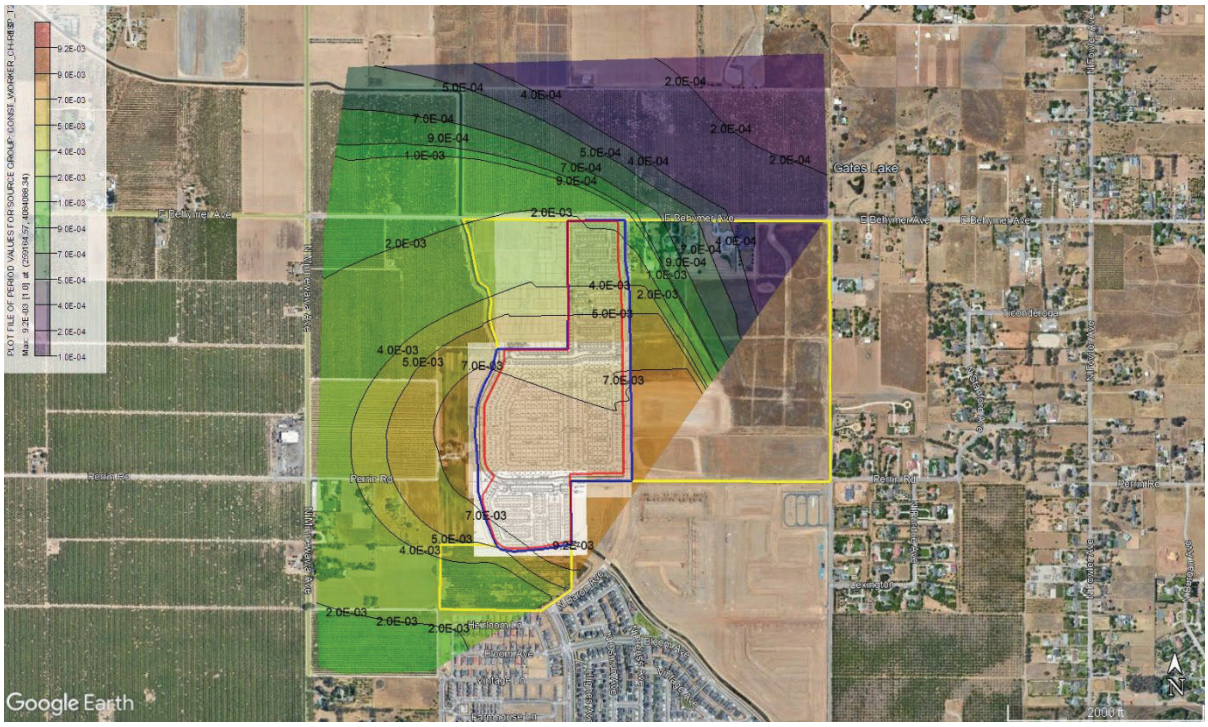
Construction Chronic Hazard Index – Sensitive Receptor



Construction Cancer Risk – Worker Receptor



Construction Chronic Hazard Index – Worker Receptor



Construction (T2)	Worker Receptor	Sensitive Receptor
Cancer Risk (in a Million)	0.06	9.93
Chronic HI	9.24E-03	9.03E-03
Acute HI	0.0	0.0

Construction (T2L3)	Worker Receptor	Sensitive Receptor
Cancer Risk (in a Million)	0.01	1.70
Chronic HI	1.61E-03	1.58E-03
Acute HI	0.0	0.0

Construction (T4)	Worker Receptor	Sensitive Receptor
Cancer Risk (in a Million)	0.01	1.01
Chronic HI	1.01E-03	9.92E-04
Acute HI	0.0	0.0

PM 10				
Tons/Yr	UM	T2	T2L3	T4
Year 1	0.007895	0.007895	0.001201	6.52E-04
Year 2	0.1346	0.1346	2.35E-02	1.48E-02
Year 3	0.09125	0.09125	0.01498	0.007145
Year 4	0.06485	0.06485	0.0105	0.00519

PM 2.5				
Tons/Yr	UM	T2	T2L3	T4
Year 1				
Year 2				
Year 3				

PM 10				
Lbs /Yr	UM	T2	T2L3	T4
Year 1	15.79	15.79	2.401	1.304
Year 2	269.2	269.2	47.02	29.55
Year 3	182.5	182.5	29.96	14.29
Year 4	129.7	129.7	21	10.38

PM 2.5				
Lbs /Yr	UM	T2	T2L3	T4
Year 1	0	0	0	0
Year 2	0	0	0	0
Year 3	0	0	0	0

PM 10				
% Chng	UM	M	T2L3	T4
Year 1	100%	100%	15%	8%
Year 2	100%	100%	17%	11%
Year 3	100%	100%	16%	8%
Year 4	100%	100%	16%	8%

PM 2.5				
g/sec	UM	T2	T2L3	T4
Year 1	0	0	0	0
Year 2	0	0	0	0
Year 3	0	0	0	0

			UnMitigated				9.93E-06	T2				9.93E-06	T2L3				1.70E-06	T4				1.01E-06
			Yr 1	Yr 2	Yr 3	Yr 4	Total	Yr 1	Yr 2	Yr 3	Yr 4	Total	Yr 1	Yr 2	Yr 3	Yr 4	Total	Yr 1	Yr 2	Yr 3	Yr 4	Total
1	259377	4084950	2.17E-07	3.42E-06	5.49E-07	3.90E-07	4.58E-06	2.17E-07	3.42E-06	5.49E-07	3.90E-07	4.58E-06	3.30E-08	5.97E-07	9.02E-08	6.32E-08	7.84E-07	1.79E-08	3.75E-07	4.30E-08	3.12E-08	4.68E-07
2	259371.2	4084989	1.77E-07	2.78E-06	4.47E-07	3.18E-07	3.72E-06	1.77E-07	2.78E-06	4.47E-07	3.18E-07	3.72E-06	2.69E-08	4.86E-07	7.34E-08	5.14E-08	6.38E-07	1.46E-08	3.05E-07	3.50E-08	2.54E-08	3.80E-07
3	259384.6	4084988	1.64E-07	2.58E-06	4.14E-07	2.94E-07	3.45E-06	1.64E-07	2.58E-06	4.14E-07	2.94E-07	3.45E-06	2.49E-08	4.50E-07	6.79E-08	4.76E-08	5.90E-07	1.35E-08	2.83E-07	3.24E-08	2.35E-08	3.52E-07
4	259428.8	4085011	9.37E-08	1.48E-06	2.37E-07	1.68E-07	1.97E-06	9.37E-08	1.48E-06	2.37E-07	1.68E-07	1.97E-06	1.43E-08	2.58E-07	3.89E-08	2.73E-08	3.38E-07	7.74E-09	1.62E-07	1.86E-08	1.35E-08	2.02E-07
5	259437.1	4085008	9.05E-08	1.43E-06	2.29E-07	1.63E-07	1.91E-06	9.05E-08	1.43E-06	2.29E-07	1.63E-07	1.91E-06	1.38E-08	2.49E-07	3.76E-08	2.63E-08	3.27E-07	7.48E-09	1.56E-07	1.79E-08	1.30E-08	1.95E-07
6	259446.3	4085008	8.43E-08	1.33E-06	2.13E-07	1.52E-07	1.78E-06	8.43E-08	1.33E-06	2.13E-07	1.52E-07	1.78E-06	1.28E-08	2.32E-07	3.50E-08	2.45E-08	3.04E-07	6.96E-09	1.46E-07	1.67E-08	1.21E-08	1.81E-07
7	259476.1	4085021	6.13E-08	9.65E-07	1.55E-07	1.10E-07	1.29E-06	6.13E-08	9.65E-07	1.55E-07	1.10E-07	1.29E-06	9.32E-09	1.69E-07	2.54E-08	1.78E-08	2.21E-07	5.06E-09	1.06E-07	1.21E-08	8.82E-09	1.32E-07
8	259485.2	4085022	5.80E-08	9.14E-07	1.47E-07	1.04E-07	1.22E-06	5.80E-08	9.14E-07	1.47E-07	1.04E-07	1.22E-06	8.82E-09	1.60E-07	2.41E-08	1.69E-08	2.09E-07	4.79E-09	1.00E-07	1.15E-08	8.35E-09	1.25E-07
9	259493.1	4085022	5.57E-08	8.77E-07	1.41E-07	1.00E-07	1.17E-06	5.57E-08	8.77E-07	1.41E-07	1.00E-07	1.17E-06	8.47E-09	1.53E-07	2.31E-08	1.62E-08	2.01E-07	4.60E-09	9.63E-08	1.10E-08	8.02E-09	1.20E-07
10	259501.9	4085022	5.34E-08	8.40E-07	1.35E-07	9.59E-08	1.12E-06	5.34E-08	8.40E-07	1.35E-07	9.59E-08	1.12E-06	8.11E-09	1.47E-07	2.22E-08	1.55E-08	1.93E-07	4.41E-09	9.22E-08	1.06E-08	7.68E-09	1.15E-07
11	259496.2	4084979	7.49E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06	7.49E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06	1.14E-08	2.06E-07	3.11E-08	2.18E-08	2.70E-07	6.19E-09	1.29E-07	1.48E-08	1.08E-08	1.61E-07
12	259496.6	4084971	7.87E-08	1.24E-06	1.99E-07	1.41E-07	1.66E-06	7.87E-08	1.24E-06	1.99E-07	1.41E-07	1.66E-06	1.20E-08	2.16E-07	3.27E-08	2.29E-08	2.84E-07	6.50E-09	1.36E-07	1.56E-08	1.13E-08	1.69E-07
13	259543.5	4085024	4.37E-08	6.88E-07	1.11E-07	7.86E-08	9.21E-07	4.37E-08	6.88E-07	1.11E-07	7.86E-08	9.21E-07	6.65E-09	1.20E-07	1.81E-08	1.27E-08	1.58E-07	3.61E-09	7.55E-08	8.66E-09	6.29E-09	9.41E-08
14	259542.6	4085017	4.59E-08	7.23E-07	1.16E-07	8.25E-08	9.67E-07	4.59E-08	7.23E-07	1.16E-07	8.25E-08	9.67E-07	6.98E-09	1.26E-07	1.91E-08	1.34E-08	1.66E-07	3.79E-09	7.93E-08	9.09E-09	6.60E-09	9.88E-08
15	259548.7	4085015	4.52E-08	7.12E-07	1.14E-07	8.13E-08	9.53E-07	4.52E-08	7.12E-07	1.14E-07	8.13E-08	9.53E-07	6.88E-09	1.24E-07	1.88E-08	1.32E-08	1.63E-07	3.73E-09	7.82E-08	8.96E-09	6.51E-09	9.74E-08
16	259557.9	4085015	4.33E-08	6.82E-07	1.10E-07	7.79E-08	9.13E-07	4.33E-08	6.82E-07	1.10E-07	7.79E-08	9.13E-07	6.59E-09	1.19E-07	1.80E-08	1.26E-08	1.56E-07	3.58E-09	7.49E-08	8.58E-09	6.23E-09	9.32E-08
17	259562.7	4085017	4.20E-08	6.61E-07	1.06E-07	7.54E-08	8.84E-07	4.20E-08	6.61E-07	1.06E-07	7.54E-08	8.84E-07	6.38E-09	1.15E-07	1.74E-08	1.22E-08	1.51E-07	3.46E-09	7.25E-08	8.31E-09	6.04E-09	9.03E-08
18	259563.6	4085008	4.38E-08	6.90E-07	1.11E-07	7.87E-08	9.23E-07	4.38E-08	6.90E-07	1.11E-07	7.87E-08	9.23E-07	6.66E-09	1.20E-07	1.82E-08	1.27E-08	1.58E-07	3.62E-09	7.57E-08	8.67E-09	6.30E-09	9.43E-08
19	259564	4085000	4.55E-08	7.16E-07	1.15E-07	8.17E-08	9.58E-07	4.55E-08	7.16E-07	1.15E-07	8.17E-08	9.58E-07	6.91E-09	1.25E-07	1.89E-08	1.32E-08	1.64E-07	3.75E-09	7.86E-08	9.01E-09	6.54E-09	9.79E-08
20	259545.6	4084996	5.13E-08	8.07E-07	1.30E-07	9.22E-08	1.08E-06	5.13E-08	8.07E-07	1.30E-07	9.22E-08	1.08E-06	7.80E-09	1.41E-07	2.13E-08	1.49E-08	1.85E-07	4.24E-09	8.86E-08	1.02E-08	7.38E-09	1.10E-07
21	259643	4085008	3.35E-08	5.27E-07	8.47E-08	6.02E-08	7.06E-07	3.35E-08	5.27E-07	8.47E-08	6.02E-08	7.06E-07	5.09E-09	9.21E-08	1.39E-08	9.75E-09	1.21E-07	2.77E-09	5.79E-08	6.64E-09	4.82E-09	7.21E-08
22	259643	4085001	3.44E-08	5.42E-07	8.71E-08	6.19E-08	7.25E-07	3.44E-08	5.42E-07	8.71E-08	6.19E-08	7.25E-07	5.23E-09	9.46E-08	1.43E-08	1.00E-08	1.24E-07	2.84E-09	5.95E-08	6.82E-09	4.95E-09	7.41E-08
23	259650.8	4085004	3.32E-08	5.23E-07	8.41E-08	5.98E-08	7.01E-07	3.32E-08	5.23E-07	8.41E-08	5.98E-08	7.01E-07	5.06E-09	9.14E-08	1.38E-08	9.68E-09	1.20E-07	2.75E-09	5.75E-08	6.59E-09	4.78E-09	7.16E-08
24	259657.9	4085009	3.20E-08	5.04E-07	8.10E-08	5.76E-08	6.75E-07	3.20E-08	5.04E-07	8.10E-08	5.76E-08	6.75E-07	4.87E-09	8.81E-08	1.33E-08	9.32E-09	1.16E-07	2.64E-09	5.54E-08	6.34E-09	4.61E-09	6.90E-08
25	259657.9	4085004	3.26E-08	5.14E-07	8.26E-08	5.87E-08	6.88E-07	3.26E-08	5.14E-07	8.26E-08	5.87E-08	6.88E-07	4.96E-09	8.98E-08	1.36E-08	9.50E-09	1.18E-07	2.70E-09	5.64E-08	6.47E-09	4.70E-09	7.03E-08
26	259657.2	4084998	3.35E-08	5.28E-07	8.48E-08	6.03E-08	7.07E-07	3.35E-08	5.28E-07	8.48E-08	6.03E-08	7.07E-07	5.10E-09	9.22E-08	1.39E-08	9.76E-09	1.21E-07	2.77E-09	5.79E-08	6.64E-09	4.82E-09	7.22E-08
27	259664.2	4085009	3.15E-08	4.96E-07	7.97E-08	5.67E-08	6.64E-07	3.15E-08	4.96E-07	7.97E-08	5.67E-08	6.64E-07	4.79E-09	8.67E-08	1.31E-08	9.18E-09	1.14E-07	2.60E-09	5.45E-08	6.24E-09	4.54E-09	6.79E-08
28	259664.2	4085000	3.27E-08	5.14E-07	8.26E-08	5.87E-08	6.88E-07	3.27E-08	5.14E-07	8.26E-08	5.87E-08	6.88E-07	4.97E-09	8.98E-08	1.36E-08	9.51E-09	1.18E-07	2.70E-09	5.64E-08	6.47E-09	4.70E-09	7.03E-08
29	259669.4	4084999	3.24E-08	5.10E-07	8.19E-08	5.82E-08	6.82E-07	3.24E-08	5.10E-07	8.19E-08	5.82E-08	6.82E-07	4.92E-09	8.90E-08	1.34E-08	9.42E-09	1.17E-07	2.67E-09	5.59E-08	6.41E-09	4.66E-09	6.97E-08
30	259670.2	4085006	3.14E-08	4.94E-07	7.94E-08	5.65E-08	6.62E-07	3.14E-08	4.94E-07	7.94E-08	5.65E-08	6.62E-07	4.78E-09	8.64E-08	1.30E-08	9.14E-09	1.13E-07	2.59E-09	5.43E-08	6.22E-09	4.52E-09	6.76E-08
31	259670.2	4085016	3.02E-08	4.75E-07	7.63E-08	5.42E-08	6.36E-07	3.02E-08	4.75E-07	7.63E-08	5.42E-08	6.36E-07	4.59E-09	8.30E-08	1.25E-08	8.78E-09	1.09E-07	2.49E-09	5.21E-08	5.98E-09	4.34E-09	6.50E-08
32	259674.3	4085013	3.03E-08	4.77E-07	7.67E-08	5.45E-08	6.39E-07	3.03E-08	4.77E-07	7.67E-08	5.45E-08	6.39E-07	4.61E-09	8.34E-08	1.26E-08	8.83E-09	1.09E-07	2.50E-09	5.24E-08	6.01E-09	4.36E-09	6.53E-08
33	259712.6	4085017	2.72E-08	4.29E-07	6.89E-08	4.90E-08	5.74E-07	2.72E-08	4.29E-07	6.89E-08	4.90E-08	5.74E-07	4.14E-09	7.49E-08	1.13E-08	7.93E-09	9.83E-08	2.25E-09	4.71E-08	5.39E-09	3.92E-09	5.86E-08
34	259712.2	4085011	2.79E-08	4.39E-07	7.05E-08	5.01E-08	5.87E-07	2.79E-08	4.39E-07	7.05E-08	5.01E-08	5.87E-07	4.24E-09	7.66E-08	1.16E-08	8.11E-09	1.01E-07	2.30E-09	4.82E-08	5.52E-09	4.01E-09	6.00E-08
35	259712.2	4085008	2.82E-08	4.44E-07	7.14E-08	5.07E-08	5.95E-07	2.82E-08	4.44E-07	7.14E-08	5.07E-08	5.95E-07	4.29E-09	7.76E-08	1.17E-08	8.22E-09	1.02E-07	2.33E-09	4.88E-08	5.59E-09	4.06E-09	6.08E-08
36	259718.9	4085012	2.73E-08	4.30E-07	6.91E-08	4.91E-08	5.76E-07	2.73E-08	4.30E-07	6.91E-08	4.91E-08	5.76E-07	4.15E-09	7.51E-08	1.13E-08	7.95E-09	9.86E-08	2.26E-09	4.72E-08	5.41E-09	3.93E-09	5.88E-08
37	259726	4085012	2.69E-08	4.23E-07	6.79E-08	4.83E-08	5.66E-07	2.69E-08	4.23E-07	6.79E-08	4.83E-08	5.66E-07	4.08E-09	7.39E-08	1.12E-08	7.82E-09	9.69E-08	2.22E-09	4.64E-08	5.32E-09	3.86E-09	5.78E-08
38	259731.2	4085008	2.70E-08	4.25E-07	6.83E-08	4.85E-08	5.69E-07	2.70E-08	4.25E-07	6.83E-08	4.85E-08	5.69E-07	4.11E-09	7.43E-08	1.12E-08	7.86E-09	9.74E-08	2.23E-09	4.67E-08	5.35E-09	3.88E-09	5.81E-08
39	259720.4	4085006	2.79E-08	4.39E-07	7.05E-08	5.01E-08	5.87E-07	2.79E-08	4.39E-07	7.05E-08	5.01E-08	5.87E-07	4.24E-09	7.66E-08	1.16E-08	8.11E-09	1.01E-07	2.30E-09	4.81E-08	5.52E-09	4.01E-09	6.00E-08
40	259716.3	4084997	2.92E-08	4.59E-07	7.38E-08	5.24E-08	6.15E-07	2.92E-08	4.59E-07	7.38E-08	5.24E-08	6.15E-07	4.43E-09	8.02E-08	1.21E-08	8.49E-09	1.05E-07	2.41E-09	5.04E-08	5.78E-09	4.20E-09	6.28E-08
41	259708.5	4084997	2.98E-08	4.69E-07	7.53E-08	5.35E-08	6.27E-07	2.98E-08	4.69E-07	7.53E-08	5.35E-08	6.27E-07	4.53E-09	8.19E-08	1.24E-08	8.66E-09	1.07E-07	2.46E-09	5.14E-08	5.90E-09	4.28E-09	6.41E-08
42	259702.5	4084997	3.02E-08	4.76E-07	7.64E-08	5.43E-08	6.37E-07	3.02E-08	4.76E-07	7.64E-08	5.43E-08	6.37E-07	4.59E-09	8.31E-08	1.25E-08	8.79E-09	1.09E-07	2.49E-09	5.22E-08	5.98E-09	4.35E-09	6.50E-08
43	259701.1	4085003	2.96E-08	4.65E-07	7.48E-08	5.31E-08	6.23E-07	2.96E-08	4.65E-07	7.48E-08	5.31E-08	6.23E-07	4.50E-09	8.13E-08	1.23E-08	8.60E-09	1.07E-07	2.44E-09	5.11E-08	5.86E-09	4.25E-09	6.36E-08
44	259699.2	4084996	3.05E-08	4.80E-07	7.72E-08	5.48E-08	6.43E-07	3.05E-08	4.80E-07	7.72E-08	5.48E-08	6.43E-07	4.64E-09	8.39E-08	1.27E-08	8.88E-09	1.10E-07	2.52E-09	5.27E-08	6.04E-09	4.39E-09	6.57E-08
45	259700.3	4084992	3.09E-08	4.87E-07	7.82E-08	5.56E-08	6.52E-07	3.09E-08	4.87E-07	7.82E-08	5.56E-08	6.52E-07	4.70E-09	8.51E-08	1.28E-08	9.00E-09	1.12E-07	2.55E-09	5.35E-08	6.13E-09	4.45E-09	6.66E-08
46	259709.6	4084993	3.01E-08	4.74E-07	7.62E-08	5.42E-08	6.35E-07	3.01E-08	4.74E-07	7.62E-08	5.42E-08	6.35E-07	4.58E-09	8.29E-08	1.25E-08	8.77E-09	1.09E-07	2.49E-09	5.21E-08	5.97E-09	4.33E-09	6.49E-08
47	260029.5	4085370	7.21E-09	1.14E-07	1.82E-08	1.30E-08	1.52E-07	7.21E-09	1.14E-07	1.82E-08	1.30E-08	1.52E-07	1.10E-09	1.98E-08	2.99E-09	2.10E-09	2.60E-08	5.95E-10	1.25E-08	1.43E-09	1.04E-09	1.55E-08
48	260027.2	4085384	7.03E-09	1.11E-07	1.78E-08	1.26E-08	1.48E-07	7.03E-09	1.11E-07	1.78E-08	1.26E-08	1.48E-07	1.07E-09	1.93E-08	2.92E-09	2.05E-09	2.54E-08	5.80E-10	1.21E-08	1.39E-09	1.01E-09	1.51E-08
49	260022.5	4085432	6.45E-09	1.02E-07	1.63E-08	1.16E-08	1.36E-07	6.45E-09	1.02E-07	1.63E-08	1.16E-08	1.36E-07	9.81E-10	1.77E-08	2.68E-09	1.88E-09	2.33E-08	5.33E-10	1.12E-08	1.28E-09	9.28E-10	1.39E-08
50	260153.7	4085201	9.44E-09	1.49E-07	2.39E-08	1.70E-08	1.99E-07	9.44E-09	1.49E-07	2.39E-08	1.70E-08	1.99E-07	1.44E-09	2.60E-08	3.92E-09	2.75E-09	3.41E-08	7.80E-10	1.63E-08	1.87E-09	1.36E-09	2.03E-08
51	260167.6	4085201	9.31E-09	1.47E-07	2.35E-08	1.67E-08	1.96E-07	9.31E-09	1.47E-07	2.35E-08	1.67E-08	1.96E-07	1.42E-09	2.56E-08	3.87E-09	2.71E-09	3.36E-08	7.69E-10	1.61E-08	1.84E-09	1.34E-09	2.00E-08
52	260160.6	4085187	9.66E-09	1.52E-07	2.44E-08	1.74E-08	2.03E-07	9.66E-09	1.52E-07	2.44E-08	1.74E-08	2.03E-07	1.47E-09	2.66E-08	4.01E-09	2.81E-09	3.48E-08	7.97E-10	1.67E-08	1.91E-09	1.39E-09	2.08E-08
53	260175.7	4085139	1.04E-08	1.64E-07	2.63E-08	1.87E-08	2.19E-07	1.04E-08	1.64E-07	2.63E-08	1.87E-08	2.19E-07	1.58E-09	2.86E-08	4.32E-09	3.03E-09	3.75E-08	8.59E-10	1.80E-08	2.06E-09	1.50E-09	2.24E-08
54	260037.6	4085021	1.59E-08	2.51E-07	4.03E-08	2.86E-08	3.36E-07	1.59E-08	2.51E-07	4.03E-08	2.86E-08	3.36E-07	2.42E-09	4.38E-08	6.62E-09	4.64E-09	5.75E-08	1.32E-09	2.75E-08	3.16E-09	2.29E-09	3.43E-08
55	260026	4085021	1.61E-08	2.54E-07	4.08E-08	2.90E-08	3.40E-07	1.61E-08	2.54E-07	4.08E-08	2.90E-08	3.40E-07	2.45E-09	4.43E-08	6.69E-09	4.69E-09	5.82E-08	1.33E-09	2.79E-08	3.19E-09	2.32E-09	3.47E-08
56	260017.9	4085008	1.68E-08	2.65E-07	4.26E-08	3.03E-08	3.55E-07	1.68E-08	2.65E-07	4.26E-08	3.03E-08	3.55E-07	2.56E-09	4.63E-08	6.99E-09	4.90E-09	6.08E-08	1.39E-09	2.91E-08	3.34E-09	2.42E-09	3.63E-08
57	260089.8	4084990	1.63E-08	2.57E-07	4.13E-08	2.93E-08	3.44E-07	1.63E-08	2.57E-07	4.13E-08	2.93E-08	3.44E-07	2.48E-09	4.49E-08	6.78E-09	4.75E-09	5.89E-08	1.35E-09	2.82E-08	3.23E-09	2.35E-09	3.51E-08
58	260103.8	4084992	1.60E-08	2.52E-07	4.04E-08	2.87E-08	3.37E-07	1.60E-08	2.52E-07	4.04E-08	2.87E-08	3.37E-07	2.43E-09	4.40E-08	6.64E-09	4.65E-09	5.77E-08	1.32E-09	2.76E-08	3.17E-09	2.30E-09	3.44E-08
59	260018.2	4084858	2.56E-08	4.03E-07	6.48E-08	4.61E-08	5.40E-07	2.56E-08	4.03E-07	6.48E-08	4.61E-08	5.40E-07	3.90E-09	7.05E-08	1.06E-08	7.46E-09	9.25E-08	2.12E-09	4.43E-08	5.08E-09	3.69E-09	5.52E-08
60	260023.2	4084867	2.48E-08	3.90E-07	6.27E-08	4.46E-08	5.22E-07	2.48E-08	3.90E-07	6.27E-08	4.46E-08	5.22E-07	3.77E-09	6.82E-08	1.03E-08	7.21E-09	8.94E-08	2.05E-09	4.28E-08	4.91E-09	3.57E-09	5.34E-08
61	260029.6	4084868	2.45E-08	3.85E-07	6.19E-08	4.40E-08	5.16E-07	2.45E-08	3.85E-07	6.19E-08	4.40E-08	5.16E-07	3.72E-09	6.73E-08	1.02E-08	7.12E-09	8.83E-08	2.02E-09	4.23E-08	4.85E-09	3.52E-09	5.27E-08
62	260072.4	4084868	2.29E-08	3.60E-07	5.79E-08	4.11E-08	4.82E-07	2.29E-08	3.60E-07	5.79E-08	4.11E-08	4.82E-07	3.48E-09	6.29E-08	9.50E-09	6.66E-09	8.26E-08	1.89E-09	3.96E-08	4.53E-09	3.29E-09	4.93E-08
63	260185	4085033	1.31E-08	2.06E-07	3.31E-08	2.35E-08	2.76E-07	1.31E-08	2.06E-07	3.31E-08	2.35E-08	2.76E-07	1.99E-09	3.60E-08	5.43E-09	3.81E-09	4.72E-08	1.08E-09	2.26E-08	2.59E-09	1.88E-09	2.82E-08
64	260185	4085019	1.35E-08	2.12E-07	3.41E-08	2.42E-08	2.84E-07	1.35E-08	2.12E-07	3.41E-08	2.42E-08	2.84E-07	2.05E-09	3.71E-08	5.60E-09	3.92E-09	4.87E-08	1.11E-09	2.33E-08	2.67E-09	1.94E-09	2.90E-08
65	260182.9	4085009	1.38E-08	2.18E-07	3.50E-08	2.49E-08	2.91E-07	1.38E-08	2.18E-07	3.50E-08	2.49E-08	2.91E-07	2.10E-09	3.80E-08	5.74E-09	4.02E-09	4.99E-08	1.14E-09	2.39E-08	2.74E-09	1.99E-09	2.98E-08
66	260169.3	4085002	1.43E-08	2.24E-07	3.61E-08	2.56E-08	3.00E-07	1.43E-08	2.24E-07	3.61E-08	2.56E-08	3.00E-07	2.17E-09	3.92E-08	5.92E-09	4.15E-09	5.14E-08	1.18E-09	2.46E-08	2.82E-09	2.05E-09	3.07E-08
67	260222.8	4084875	1.80E-08	2.83E-07	4.54E-08	3.23E-08	3.78E-07	1.80E-08	2.83E-07	4.54E-08	3.23E-08	3.78E-07	2.73E-09	4.94E-08	7.46E-09	5.23E-09	6.48E-08	1.48E-09	3.10E-08	3.56E-09	2.58E-09	3.87E-08
68	260222.8	4084889	1.74E-08	2.75E-07	4.41E-08	3.14E-08	3.68E-07	1.74E-08	2.75E-07	4.41E-08	3.14E-08	3.68E-07	2.65E-09	4.80E-08	7.24E-09	5.08E-09	6.30E-08	1.44E-09	3.02E-08	3.46E-09	2.51E-09	3.76E-08
69	260230.6	4084894	1.71E-08	2.69E-07	4.32E-08	3.07E-08	3.60E-07	1.71E-08	2.69E-07	4.32E-08	3.07E-08	3.60E-07	2.60E-09	4.70E-08	7.10E-09	4.97E-09	6.17E-08	1.41E-09	2.95E-08	3.38E-09	2.46E-09	3.68E-08
70	260241.3	4084896	1.68E-08	2.64E-07	4.24E-08	3.02E-08	3.54E-07	1.68E-08	2.64E-07	4.24E-08	3.02E-08	3.54E-07	2.55E-09	4.61E-08	6.97E-09	4.88E-09	6.05E-08	1.39E-09	2.90E-08	3.32E-09	2.41E-09	3.61E-08
71	260010.8	4084736	3.59E-08	5.65E-07	9.07E-08	6.45E-08	7.56E-07	3.59E-08	5.65E-07	9.07E-08	6.45E-08	7.56E-07	5.45E-09	9.86E-08	1.49E-08	1.04E-08	1.29E-07	2.96E-09	6.20E-08	7.10E-09	5.16E-09	7.72E-08
72	260020	4084739	3.49E-08	5.50E-07	8.83E-08	6.28E-08	7.36E-07	3.49E-08	5.50E-07	8.83E-08	6.28E-08	7.36E-07	5.31E-09	9.60E-08	1.45E-08	1.02E-08	1.26E-07	2.88E-09	6.03E-08	6.91E-09	5.02E-09	7.52E-08
73	260029.2	4084742	3.40E-08	5.35E-07	8.59E-08	6.11E-08	7.16E-07	3.40E-08	5.35E-07	8.59E-08	6.11E-08	7.16E-07	5.16E-09	9.34E-08	1.41E-08	9.89E-09	1.23E-07	2.80E-09	5.87E-08	6.73E-09	4.89E-09	7.31E-08
74	260083.7	4084694	3.40E-08	5.36E-07	8.60E-08	6.12E-08	7.17E-07	3.40E-08	5.36E-07	8.60E-08	6.12E-08	7.17E-07	5.17E-09	9.36E-08	1.41E-08	9.90E-09	1.23E-07	2.81E-09	5.88E-08	6.74E-09	4.89E-09	7.32E-08
75	260095.4	4084694	3.33E-08	5.24E-07	8.42E-08	5.98E-08	7.01E-07	3.33E-08	5.24E-07	8.42E-08	5.98E-08	7.01E-07	5.06E-09	9.15E-08	1.38E-08	9.69E-09	1.20E-07	2.75E-09	5.75E-08	6.59E-09	4.79E-09	7.17E-08
76	260086.7	4084739	3.05E-08	4.80E-07	7.71E-08	5.48E-08	6.43E-07	3.05E-08	4.80E-07	7.71E-08	5.48E-08	6.43E-07	4.64E-09	8.39E-08	1.27E-08	8.88E-09	1.10E-07	2.52E-09	5.27E-08	6.04E-09	4.39E-09	6.56E-08
77	260093.1	4084735	3.05E-08	4.80E-07	7.70E-08	5.48E-08	6.42E-07	3.05E-08	4.80E-07	7.70E-08	5.48E-08	6.42E-07	4.63E-09	8.38E-08	1.26E-08	8.87E-09	1.10E-07	2.52E-09	5.26E-08	6.03E-09	4.38E-09	6.56E-08
78	260105.1	4084742	2.93E-08	4.61E-07	7.41E-08	5.27E-08	6.18E-07	2.93E-08	4.61E-07	7.41E-08	5.27E-08	6.18E-07	4.46E-09	8.06E-08	1.22E-08	8.53E-09	1.06E-07	2.42E-09	5.06E-08	5.80E-09	4.22E-09	6.31E-08
79	260084.4	4084452	5.58E-08	8.78E-07	1.41E-07	1.00E-07	1.18E-06	5.58E-08	8.78E-07	1.41E-07	1.00E-07	1.18E-06	8.48E-09	1.53E-07	2.32E-08	1.62E-08	2.01E-07	4.61E-09	9.64E-08	1.10E-08	8.02E-09	1.20E

126	260153.3	4084161	7.18E-08	1.13E-06	1.82E-07	1.29E-07	1.51E-06
127	260153.3	4084154	7.22E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
128	260163.8	4084147	7.12E-08	1.12E-06	1.80E-07	1.28E-07	1.50E-06
129	260141.1	4084153	7.40E-08	1.16E-06	1.87E-07	1.33E-07	1.56E-06
130	260141.1	4084123	7.59E-08	1.20E-06	1.92E-07	1.37E-07	1.60E-06
131	260141.1	4084102	7.72E-08	1.22E-06	1.95E-07	1.39E-07	1.63E-06
132	260141.1	4084094	7.77E-08	1.22E-06	1.96E-07	1.40E-07	1.64E-06
133	260138.9	4084086	7.84E-08	1.23E-06	1.98E-07	1.41E-07	1.65E-06
134	260122.3	4084085	8.09E-08	1.27E-06	2.05E-07	1.45E-07	1.71E-06
135	260024.1	4084081	9.79E-08	1.54E-06	2.48E-07	1.76E-07	2.06E-06
136	260017.4	4084069	9.97E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
137	260017.4	4084059	1.00E-07	1.58E-06	2.54E-07	1.80E-07	2.11E-06
138	260015.6	4084049	1.01E-07	1.59E-06	2.56E-07	1.82E-07	2.13E-06
139	260061	4084036	9.33E-08	1.47E-06	2.36E-07	1.68E-07	1.97E-06
140	259994.4	4083982	1.07E-07	1.69E-06	2.71E-07	1.93E-07	2.26E-06
141	259985.9	4083982	1.09E-07	1.71E-06	2.75E-07	1.96E-07	2.29E-06
142	259978.1	4083982	1.10E-07	1.74E-06	2.79E-07	1.98E-07	2.33E-06
143	260164.5	4084059	7.62E-08	1.20E-06	1.93E-07	1.37E-07	1.61E-06
144	260162.7	4084049	7.70E-08	1.21E-06	1.95E-07	1.38E-07	1.62E-06
145	260161.5	4084040	7.76E-08	1.22E-06	1.96E-07	1.39E-07	1.64E-06
146	260162.1	4084024	7.82E-08	1.23E-06	1.98E-07	1.41E-07	1.65E-06
147	260153	4084026	7.94E-08	1.25E-06	2.01E-07	1.43E-07	1.67E-06
148	260097.3	4084026	8.78E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06
149	260142.7	4083979	8.28E-08	1.30E-06	2.09E-07	1.49E-07	1.74E-06
150	260136.7	4083984	8.35E-08	1.31E-06	2.11E-07	1.50E-07	1.76E-06
151	260127	4083983	8.49E-08	1.34E-06	2.15E-07	1.53E-07	1.79E-06
152	260116.7	4083984	8.64E-08	1.36E-06	2.19E-07	1.55E-07	1.82E-06
153	260109.4	4083984	8.75E-08	1.38E-06	2.21E-07	1.57E-07	1.84E-06
154	260113.7	4083900	8.89E-08	1.40E-06	2.25E-07	1.60E-07	1.87E-06
155	260120.9	4083901	8.79E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06
156	260131.2	4083900	8.65E-08	1.36E-06	2.19E-07	1.55E-07	1.82E-06
157	260041	4083891	9.99E-08	1.57E-06	2.53E-07	1.80E-07	2.11E-06
158	260031.3	4083890	1.01E-07	1.60E-06	2.57E-07	1.82E-07	2.14E-06
159	260024.7	4083891	1.03E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
160	260014.4	4083892	1.04E-07	1.64E-06	2.64E-07	1.87E-07	2.20E-06
161	260008.3	4083897	1.05E-07	1.66E-06	2.66E-07	1.89E-07	2.22E-06
162	260190.6	4083897	7.87E-08	1.24E-06	1.99E-07	1.42E-07	1.66E-06
163	260203.3	4083898	7.71E-08	1.21E-06	1.95E-07	1.39E-07	1.63E-06
164	260220.2	4083897	7.51E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
165	259277.6	4083982	3.15E-07	4.96E-06	7.96E-07	5.66E-07	6.63E-06
166	259263.3	4083976	3.11E-07	4.90E-06	7.87E-07	5.59E-07	6.56E-06
167	259246.6	4083968	3.05E-07	4.80E-06	7.71E-07	5.48E-07	6.42E-06
168	259235.7	4083961	2.97E-07	4.67E-06	7.51E-07	5.33E-07	6.25E-06
169	259224	4083951	2.83E-07	4.46E-06	7.17E-07	5.09E-07	5.97E-06
170	259213.9	4083947	2.77E-07	4.35E-06	7.00E-07	4.97E-07	5.83E-06
171	259200.5	4083937	2.61E-07	4.11E-06	6.60E-07	4.69E-07	5.50E-06
172	259183.7	4083929	2.45E-07	3.86E-06	6.20E-07	4.41E-07	5.17E-06
173	259175.3	4083917	2.28E-07	3.60E-06	5.78E-07	4.11E-07	4.81E-06
174	259161.9	4083909	2.15E-07	3.39E-06	5.45E-07	3.87E-07	4.54E-06
175	259136.8	4083874	1.74E-07	2.74E-06	4.40E-07	3.13E-07	3.66E-06
176	259141	4083859	1.64E-07	2.59E-06	4.15E-07	2.95E-07	3.46E-06
177	259144.3	4083840	1.53E-07	2.41E-06	3.87E-07	2.75E-07	3.23E-06
178	259192.1	4083852	1.77E-07	2.79E-06	4.48E-07	3.18E-07	3.73E-06
179	259185.4	4083875	1.93E-07	3.03E-06	4.87E-07	3.46E-07	4.06E-06
180	259208	4083889	2.11E-07	3.33E-06	5.34E-07	3.80E-07	4.45E-06
181	259217.3	4083876	2.03E-07	3.19E-06	5.13E-07	3.65E-07	4.28E-06
182	259224	4083857	1.89E-07	2.98E-06	4.78E-07	3.40E-07	3.98E-06
183	259245.7	4083914	2.45E-07	3.87E-06	6.21E-07	4.41E-07	5.17E-06
184	259255	4083901	2.34E-07	3.68E-06	5.92E-07	4.21E-07	4.93E-06
185	259259.2	4083885	2.20E-07	3.47E-06	5.57E-07	3.96E-07	4.64E-06
186	259265.9	4083869	2.08E-07	3.28E-06	5.27E-07	3.75E-07	4.39E-06
187	259270.9	4083856	1.99E-07	3.13E-06	5.03E-07	3.58E-07	4.19E-06
188	259273.4	4083842	1.89E-07	2.98E-06	4.79E-07	3.41E-07	3.99E-06
189	259282.6	4083824	1.78E-07	2.81E-06	4.51E-07	3.21E-07	3.76E-06
190	259280.9	4083937	2.69E-07	4.24E-06	6.81E-07	4.84E-07	5.68E-06
191	259284.3	4083924	2.57E-07	4.04E-06	6.49E-07	4.61E-07	5.41E-06
192	259291.8	4083909	2.43E-07	3.83E-06	6.16E-07	4.37E-07	5.13E-06
193	259296.9	4083893	2.30E-07	3.63E-06	5.83E-07	4.14E-07	4.85E-06
194	259306.1	4083879	2.20E-07	3.47E-06	5.57E-07	3.96E-07	4.64E-06
195	259313.6	4083861	2.07E-07	3.27E-06	5.25E-07	3.73E-07	4.37E-06
196	259317.8	4083845	1.97E-07	3.10E-06	4.98E-07	3.54E-07	4.15E-06
197	259322.8	4083821	1.83E-07	2.88E-06	4.62E-07	3.28E-07	3.85E-06
198	259102.4	4083698	8.98E-08	1.41E-06	2.27E-07	1.61E-07	1.89E-06
199	259101.6	4083719	9.48E-08	1.49E-06	2.40E-07	1.70E-07	2.00E-06
200	259095.7	4083739	9.93E-08	1.56E-06	2.51E-07	1.79E-07	2.09E-06
201	259091.5	4083786	1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06
202	259083.2	4083809	1.21E-07	1.90E-06	3.06E-07	2.17E-07	2.55E-06
203	259075.6	4083826	1.26E-07	1.99E-06	3.20E-07	2.27E-07	2.66E-06
204	259055.5	4083874	1.44E-07	2.27E-06	3.65E-07	2.59E-07	3.04E-06
205	259032	4083868	1.34E-07	2.11E-06	3.40E-07	2.41E-07	2.83E-06
206	259012.8	4083868	1.30E-07	2.05E-06	3.29E-07	2.34E-07	2.74E-06
207	258996	4083867	1.26E-07	1.98E-06	3.18E-07	2.26E-07	2.65E-06
208	258974.2	4083869	1.23E-07	1.94E-06	3.11E-07	2.21E-07	2.59E-06
209	258944.9	4083866	1.17E-07	1.85E-06	2.97E-07	2.11E-07	2.47E-06
210	258918.1	4083870	1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06
211	258898	4083871	1.15E-07	1.81E-06	2.91E-07	2.07E-07	2.42E-06
212	258877.8	4083873	1.15E-07	1.80E-06	2.90E-07	2.06E-07	2.41E-06
213	258862.8	4083873	1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06
214	258839.3	4083873	1.13E-07	1.78E-06	2.85E-07	2.03E-07	2.38E-06
215	258821.7	4083874	1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.37E-06
216	258798.2	4083873	1.11E-07	1.75E-06	2.81E-07	2.00E-07	2.34E-06
217	258804.1	4083832	9.91E-08	1.56E-06	2.51E-07	1.78E-07	2.09E-06
218	258817.5	4083832	9.95E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
219	258834.3	4083832	9.98E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
220	258857.7	4083832	1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.12E-06
221	258879.5	4083830	1.02E-07	1.60E-06	2.57E-07	1.83E-07	2.14E-06
222	258895.4	4083828	1.02E-07	1.60E-06	2.58E-07	1.83E-07	2.15E-06
223	258916.4	4083827	1.03E-07	1.62E-06	2.60E-07	1.85E-07	2.17E-06
224	258934	4083826	1.04E-07	1.63E-06	2.62E-07	1.86E-07	2.18E-06
225	258958.3	4083825	1.06E-07	1.66E-06	2.67E-07	1.90E-07	2.22E-06
226	258971.7	4083827	1.08E-07	1.70E-06	2.73E-07	1.94E-07	2.27E-06
227	258992.7	4083826	1.10E-07	1.74E-06	2.79E-07	1.99E-07	2.33E-06
228	259012.8	4083824	1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
229	259032	4083824	1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06
230	259048.8	4083783	1.05E-07	1.66E-06	2.66E-07	1.89E-07	2.22E-06
231	259026.2	4083783	1.02E-07	1.60E-06	2.58E-07	1.83E-07	2.15E-06
232	259009.4	4083782	9.95E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
233	258989.3	4083782	9.72E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
234	258972.5	4083784	9.59E-08	1.51E-06	2.43E-07	1.72E-07	2.02E-06
235	258949.9	4083785	9.42E-08	1.48E-06	2.38E-07	1.69E-07	1.99E-06
236	258931.5	4083785	9.29E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
237	258909.7	4083785	9.16E-08	1.44E-06	2.32E-07	1.65E-07	1.93E-06
238	258892.9	4083785	9.07E-08	1.43E-06	2.29E-07	1.63E-07	1.91E-06
239	258874.5	4083785	8.98E-08	1.41E-06	2.27E-07	1.61E-07	1.89E-06
240	258853.5	4083785	8.91E-08	1.40E-06	2.25E-07	1.60E-07	1.88E-06
241	258837.6	4083788	8.92E-08	1.40E-06	2.26E-07	1.60E-07	1.88E-06
242	258817.5	4083785	8.80E-08	1.39E-06	2.23E-07	1.58E-07	1.86E-06
243	258799.1	4083788	8.81E-08	1.39E-06	2.23E-07	1.58E-07	1.86E-06
244	258799.1	4083743	7.88E-08	1.24E-06	1.99E-07	1.42E-07	1.66E-06
245	258816.7	4083742	7.93E-08	1.25E-06	2.01E-07	1.43E-07	1.67E-06
246	258838.5	4083742	7.99E-08	1.26E-06	2.02E-07	1.44E-07	1.68E-06
247	258853.5	4083742	8.03E-08	1.26E-06	2.03E-07	1.44E-07	1.69E-06
248	258870.3	4083741	8.07E-08	1.27E-06	2.04E-07	1.45E-07	1.70E-06
249	258889.6	4083744	8.18E-08	1.29E-06	2.07E-07	1.47E-07	1.72E-06
250	258909.7	4083741	8.22E-08	1.29E-06	2.08E-07	1.48E-07	1.73E-06
251	258927.3	4083742	8.32E-08	1.31E-06	2.10E-07	1.50E-07	1.75E-06
252	258945.7	4083740	8.39E-08	1.32E-06	2.12E-07	1.51E-07	1.77E-06
253	258964.2	4083740	8.51E-08	1.34E-06	2.15E-07	1.53E-07	1.79E-06

7.18E-08	1.13E-06	1.82E-07	1.29E-07	1.51E-06			
7.22E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06			
7.12E-08	1.12E-06	1.80E-07	1.28E-07	1.50E-06			
7.40E-08	1.16E-06	1.87E-07	1.33E-07	1.56E-06			
7.59E-08	1.20E-06	1.92E-07	1.37E-07	1.60E-06			
7.72E-08	1.22E-06	1.95E-07	1.39E-07	1.63E-06			
7.77E-08	1.22E-06	1.96E-07	1.40E-07	1.64E-06			
7.84E-08	1.23E-06	1.98E-07	1.41E-07	1.65E-06			
8.09E-08	1.27E-06	2.05E-07	1.45E-07	1.71E-06			
9.79E-08	1.54E-06	2.48E-07	1.76E-07	2.06E-06			
9.97E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06			
1.00E-07	1.58E-06	2.54E-07	1.80E-07	2.11E-06			
1.01E-07	1.59E-06	2.56E-07	1.82E-07	2.13E-06			
9.33E-08	1.47E-06	2.36E-07	1.68E-07	1.97E-06			
1.07E-07	1.69E-06	2.71E-07	1.93E-07	2.26E-06			
1.09E-07	1.71E-06	2.75E-07	1.96E-07	2.29E-06			
1.10E-07	1.74E-06	2.79E-07	1.98E-07	2.33E-06			
7.62E-08	1.20E-06	1.93E-07	1.37E-07	1.61E-06			
7.70E-08	1.21E-06	1.95E-07	1.38E-07	1.62E-06			
7.76E-08	1.22E-06	1.96E-07	1.39E-07	1.64E-06			
7.82E-08	1.23E-06	1.98E-07	1.41E-07	1.65E-06			
7.94E-08	1.25E-06	2.01E-07	1.43E-07	1.67E-06			
8.78E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06			
8.28E-08	1.30E-06	2.09E-07	1.49E-07	1.74E-06			
8.35E-08	1.31E-06	2.11E-07	1.50E-07	1.76E-06			
8.49E-08	1.34E-06	2.15E-07	1.53E-07	1.79E-06			
8.64E-08	1.36E-06	2.19E-07	1.55E-07	1.82E-06			
8.75E-08	1.38E-06	2.21E-07	1.57E-07	1.84E-06			
8.89E-08	1.40E-06	2.25E-07	1.60E-07	1.87E-06			
8.79E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06			
8.65E-08	1.36E-06	2.19E-07	1.55E-07	1.82E-06			
9.99E-08	1.57E-06	2.53E-07	1.80E-07	2.11E-06			
1.01E-07	1.60E-06	2.57E-07	1.82E-07	2.14E-06			
1.03E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06			
1.04E-07	1.64E-06	2.64E-07	1.87E-07	2.20E-06			
1.05E-07	1.66E-06	2.66E-07	1.89E-07	2.22E-06			
7.87E-08	1.24E-06	1.99E-07	1.42E-07	1.66E-06			
7.71E-08	1.21E-06	1.95E-07	1.39E-07	1.63E-06			
7.51E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06			
3.15E-07	4.96E-06	7.96E-07	5.66E-07	6.63E-06			
3.11E-07	4.90E-06	7.87E-07	5.59E-07	6.56E-06			
3.05E-07	4.80E-06	7.71E-07	5.48E-07	6.42E-06			
2.97E-07	4.67E-06	7.51E-07	5.33E-07	6.25E-06			
2.83E-07	4.46E-06	7.17E-07	5.09E-07	5.97E-06			
2.77E-07	4.35E-06	7.00E-07	4.97E-07	5.83E-06			
2.61E-07	4.11E-06	6.60E-07	4.69E-07	5.50E-06			
2.45E-07	3.86E-06	6.20E-07	4.41E-07	5.17E-06			
2.28E-07	3.60E-06	5.78E-07	4.11E-07	4.81E-06			
2.15E-07	3.39E-06	5.45E-07	3.87E-07	4.54E-06			
1.74E-07	2.74E-06	4.40E-07	3.13E-07	3.66E-06			
1.64E-07	2.59E-06	4.15E-07	2.95E-07	3.46E-06			
1.53E-07	2.41E-06	3.87E-07	2.75E-07	3.23E-06			
1.77E-07	2.79E-06	4.48E-07	3.18E-07	3.73E-06			
1.93E-07	3.03E-06	4.87E-07	3.46E-07	4.06E-06			
2.11E-07	3.33E-06	5.34E-07	3.80E-07	4.45E-06			
2.03E-07	3.19E-06	5.13E-07	3.65E-07	4.28E-06			
1.89E-07	2.98E-06	4.78E-07	3.40E-07	3.98E-06			
2.45E-07	3.87E-06	6.21E-07	4.41E-07	5.17E-06			
2.34E-07	3.68E-06	5.92E-07	4.21E-07	4.93E-06			
2.20E-07	3.47E-06	5.57E-07	3.96E-07	4.64E-06			
2.08E-07	3.28E-06	5.27E-07	3.75E-07	4.39E-06			
1.99E-07	3.13E-06	5.03E-07	3.58E-07	4.19E-06			
1.89E-07	2.98E-06	4.79E-07	3.41E-07	3.99E-06			
1.78E-07	2.81E-06	4.51E-07	3.21E-07	3.76E-06			
2.69E-07	4.24E-06	6.81E-07	4.84E-07	5.68E-06			
2.57E-07	4.04E-06	6.49E-07	4.61E-07	5.41E-06			
2.43E-07	3.83E-06	6.16E-07	4.37E-07	5.13E-06			
2.30E-07	3.63E-06	5.83E-07	4.14E-07	4.85E-06			
2.20E-07	3.47E-06	5.57E-07	3.96E-07	4.64E-06			
2.07E-07	3.27E-06	5.25E-07	3.73E-07	4.37E-06			
1.97E-07	3.10E-06	4.98E-07	3.54E-07	4.15E-06			
1.83E-07	2.88E-06	4.62E-07	3.28E-07	3.85E-06			
8.98E-08	1.41E-06	2.27E-07	1.61E-07	1.89E-06			
9.48E-08	1.49E-06	2.40E-07	1.70E-07	2.00E-06			
9.93E-08	1.56E-06	2.51E-07	1.79E-07	2.09E-06			
1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06			
1.21E-07	1.90E-06	3.06E-07	2.17E-07	2.55E-06			
1.26E-07	1.99E-06	3.20E-07	2.27E-07	2.66E-06			
1.44E-07	2.27E-06	3.65E-07	2.59E-07	3.04E-06			
1.34E-07	2.11E-06	3.40E-07	2.41E-07	2.83E-06			
1.30E-07	2.05E-06	3.29E-07	2.34E-07	2.74E-06			
1.26E-07	1.98E-06	3.18E-07	2.26E-07	2.65E-06			
1.23E-07	1.94E-06	3.11E-07	2.21E-07	2.59E-06			
1.17E-07	1.85E-06	2.97E-07	2.11E-07	2.47E-06			
1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06			
1.15E-07	1.81E-06	2.91E-07	2.07E-07	2.42E-06			
1.15E-07	1.80E-06	2.90E-07	2.06E-07	2.41E-06			
1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06			
1.13E-07	1.78E-06	2.85E-07	2.03E-07	2.38E-06			
1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.37E-06			
1.11E-07	1.75E-06	2.81E-07	2.00E-07	2.34E-06			
9.91E-08	1.56E-06	2.51E-07	1.78E-07	2.09E-06			
9.95E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06			
9.98E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06			
1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.12E-06			
1.02E-07	1.60E-06	2.57E-07	1.83E-07	2.14E-06			
1.02E-07	1.60E-06	2.58E-07	1.83E-07	2.15E-06			
1.03E-07	1.62E-06	2.60E-07	1.85E-07	2.17E-06			
1.04E-07	1.63E-06	2.62E-07	1.86E-07	2.18E-06			
1.06E-07	1.66E-06	2.67E-07	1.90E-07	2.22E-06			
1.08E-07	1.70E-06	2.73E-07	1.94E-07	2.27E-06			
1.10E-07	1.74E-06	2.79E-07	1.99E-07	2.33E-06			
1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06			
1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06			
1.05E-07	1.66E-06	2.66E-07	1.89E-07	2.22E-06			
1.02E-07	1.60E-06	2.58E-07	1.83E-07	2.15E-06			
9.95E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06			
9.72E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06			
9.59E-08	1.51E-06	2.43E-07	1.72E-07	2.02E-06			
9.42E-08	1.48E-06	2.38E-07	1.69E-07	1.99E-06			
9.29E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06			
9.16E-08	1.44E-06	2.32E-07	1.65E-07	1.93E-06			
9.07E-08	1.43E-06	2.29E-07	1.63E-07	1.91E-06			
8.98E-08	1.41E-06	2.27E-07	1.61E-07	1.89E-06			
8.91E-08	1.40E-06	2.25E-07	1.60E-07	1.88E-06			
8.92E-08	1.40E-06	2.26E-07	1.60E-07	1.88E-06			
8.80E-08	1.39E-06	2.23E-07	1.58E-07	1.86E-06			
8.81E-08	1.39E-06	2.23E-07	1.58E-07	1.86E-06			
7.88E-08	1.24E-06	1.99E-07	1.42E-07	1.66E-06			
7.93E-08	1.25E-06	2.01E-07	1.43E-07	1.67E-06			
7.99E-08	1.26E-06	2.02E-07	1.44E-07	1.68E-06			
8.03E-08	1.26E-06	2.03E-07	1.44E-07	1.69E-06			
8.07E-08	1.27E-06	2.04E-07	1.45E-07	1.70E-06			
8.18E-08	1.29E-06	2.07E-07	1.47E-07	1.72E-06			
8.22E-08	1.29E-06	2.08E-07	1.48E-07	1.73E-06			
8.32E-08	1.31E-06	2.10E-07	1.50E-07	1.75E-06			
8.39E-08	1.32E-06	2.12E-07	1.51E-07	1.77E-06			
8.51E-08	1.34E-06	2.15E-07	1.53E-07	1.79E-06			

1.09E-08	1.97E-07	2.98E-08	2.09E-08	2.59E-07			
1.10E-08	1.99E-07	3.00E-08	2.10E-08	2.61E-07			
1.08E-08	1.96E-07	2.96E-08	2.07E-08	2.57E-07			
1.12E-08	2.03E-07	3.07E-08	2.15E-08	2.67E-07			
1.15E-08	2.09E-07	3.15E-08	2.21E-08	2.74E-07			
1.17E-08	2.12E-07	3.21E-08	2.25E-08	2.79E-07			
1.18E-08	2.14E-07	3.22E-08	2.26E-08	2.80E-07			
1.19E-08	2.16E-07	3.26E-08	2.28E-08	2.83E-07			
1.23E-08	2.23E-07	3.36E-08	2.36E-08	2.92E-07			
1.49E-08	2.69E-07	4.06E-08	2.85E-08	3.53E-07			
1.52E-08	2.74E-07	4.14E-08	2.90E-08	3.60E-07			
1.52E-08	2.76E-07	4.16E-08	2.92E-08	3.62E-07			
1.54E-08	2.78E-07	4.20E-08	2.94E-08	3.65E-07			
1.42E-08	2.57E-07	3.88E-08	2.72E-08	3.37E-07			
1.63E-08	2.95E-07	4.45E-08	3.12E-08	3.87E-07			
1.66E-08	2.99E-07	4.52E-08	3.17E-08	3.93E-07			
1.68E-08	3.04E-07	4.58E-08	3.21E-08	3.98E-07			
1.16E-08	2.10E-07	3.17E-08	2.22E-08	2.75E-07			
1.17E-08	2.12E-07	3.20E-08	2.24E-08	2.78E-07			
1.18E-08	2.13E-07	3.22E-08	2.26E-08	2.80E-07			
1.19E-08	2.15E-07	3.25E-08	2.28E-08	2.82E-07			
1.21E-08	2.18E-07	3.30E-08	2.31E-08	2.87E-07			
1.33E-08	2.41E-07	3.65E-08	2.55E-08	3.17E-07			
1.26E-08	2.28E-07	3.44E-08	2.41E-08	2.99E-07			
1.27E-08	2.30E-07	3.47E-08	2.43E-08	3.01E-07			
1.29E-08	2.33E-07	3.53E-08	2.47E-08	3.06E-07			

254	258985.1	4083741	8.68E-08	1.37E-06	2.20E-07	1.56E-07	1.83E-06
255	259003.6	4083739	8.79E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06
256	259004.4	4083698	7.99E-08	1.26E-06	2.02E-07	1.44E-07	1.68E-06
257	258986.8	4083700	7.89E-08	1.24E-06	2.00E-07	1.42E-07	1.66E-06
258	258966.7	4083700	7.76E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
259	258949.9	4083702	7.71E-08	1.21E-06	1.95E-07	1.39E-07	1.62E-06
260	258932.3	4083702	7.63E-08	1.20E-06	1.93E-07	1.37E-07	1.61E-06
261	258909.7	4083702	7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
262	258892.9	4083705	7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
263	258876.2	4083705	7.47E-08	1.18E-06	1.89E-07	1.34E-07	1.57E-06
264	258855.2	4083704	7.39E-08	1.16E-06	1.87E-07	1.33E-07	1.56E-06
265	258835.9	4083704	7.33E-08	1.15E-06	1.85E-07	1.32E-07	1.54E-06
266	258815.8	4083706	7.29E-08	1.15E-06	1.84E-07	1.31E-07	1.54E-06
267	258795.7	4083705	7.23E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
268	258926.5	4083670	7.07E-08	1.11E-06	1.79E-07	1.27E-07	1.49E-06
269	258926.5	4083657	6.88E-08	1.08E-06	1.74E-07	1.24E-07	1.45E-06
270	258921.4	4083649	6.75E-08	1.06E-06	1.71E-07	1.21E-07	1.42E-06
271	258923.1	4083638	6.61E-08	1.04E-06	1.67E-07	1.19E-07	1.39E-06
272	258899.6	4083636	6.52E-08	1.03E-06	1.65E-07	1.17E-07	1.37E-06
273	258898	4083648	6.67E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
274	258896.3	4083659	6.82E-08	1.07E-06	1.72E-07	1.23E-07	1.44E-06
275	258897.1	4083670	6.97E-08	1.10E-06	1.76E-07	1.25E-07	1.47E-06
276	258883.7	4083671	6.96E-08	1.10E-06	1.76E-07	1.25E-07	1.47E-06
277	258881.2	4083661	6.80E-08	1.07E-06	1.72E-07	1.22E-07	1.43E-06
278	258877.8	4083648	6.62E-08	1.04E-06	1.67E-07	1.19E-07	1.39E-06
279	258877	4083636	6.46E-08	1.02E-06	1.63E-07	1.16E-07	1.36E-06
280	258850.2	4083636	6.40E-08	1.01E-06	1.62E-07	1.15E-07	1.35E-06
281	258853.5	4083649	6.57E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
282	258853.5	4083661	6.72E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
283	258851.9	4083671	6.86E-08	1.08E-06	1.73E-07	1.23E-07	1.45E-06
284	258830.9	4083672	6.83E-08	1.08E-06	1.73E-07	1.23E-07	1.44E-06
285	258830.9	4083661	6.68E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
286	258831.8	4083652	6.56E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
287	258830.1	4083642	6.43E-08	1.01E-06	1.63E-07	1.16E-07	1.35E-06
288	258803.3	4083638	6.31E-08	9.94E-07	1.60E-07	1.13E-07	1.33E-06
289	258803.3	4083651	6.49E-08	1.02E-06	1.64E-07	1.17E-07	1.37E-06
290	258803.3	4083662	6.63E-08	1.04E-06	1.68E-07	1.19E-07	1.40E-06
291	258799.9	4083674	6.78E-08	1.07E-06	1.72E-07	1.22E-07	1.43E-06
292	258770.6	4083673	6.71E-08	1.06E-06	1.70E-07	1.21E-07	1.41E-06
293	258773.9	4083662	6.56E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
294	258775.6	4083652	6.43E-08	1.01E-06	1.63E-07	1.16E-07	1.36E-06
295	258775.6	4083640	6.28E-08	9.89E-07	1.59E-07	1.13E-07	1.32E-06
296	258778.1	4083625	6.09E-08	9.59E-07	1.54E-07	1.10E-07	1.28E-06
297	258759.7	4083728	7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
298	258761.4	4083752	7.95E-08	1.25E-06	2.01E-07	1.43E-07	1.68E-06
299	258760.5	4083777	8.46E-08	1.33E-06	2.14E-07	1.52E-07	1.78E-06
300	258763	4083807	9.17E-08	1.44E-06	2.32E-07	1.65E-07	1.93E-06
301	258765.6	4083827	9.68E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
302	258768.1	4083852	1.04E-07	1.64E-06	2.63E-07	1.87E-07	2.19E-06
303	258769.7	4083871	1.10E-07	1.73E-06	2.78E-07	1.97E-07	2.31E-06
304	259154.4	4083824	1.47E-07	2.31E-06	3.72E-07	2.64E-07	3.10E-06
305	259177	4083811	1.46E-07	2.30E-06	3.69E-07	2.62E-07	3.07E-06
306	259204.7	4083814	1.55E-07	2.44E-06	3.92E-07	2.79E-07	3.27E-06
307	259219.8	4083817	1.61E-07	2.53E-06	4.07E-07	2.89E-07	3.39E-06
308	259238.2	4083818	1.66E-07	2.61E-06	4.19E-07	2.98E-07	3.49E-06
309	259254.1	4083764	1.39E-07	2.20E-06	3.53E-07	2.51E-07	2.94E-06
310	259241.6	4083764	1.37E-07	2.16E-06	3.47E-07	2.46E-07	2.89E-06
311	259224	4083759	1.32E-07	2.07E-06	3.33E-07	2.36E-07	2.77E-06
312	259206.4	4083755	1.26E-07	1.99E-06	3.19E-07	2.27E-07	2.66E-06
313	259185.4	4083751	1.20E-07	1.89E-06	3.03E-07	2.16E-07	2.53E-06
314	259175.3	4083722	1.07E-07	1.69E-06	2.72E-07	1.93E-07	2.26E-06
315	259176.2	4083706	1.02E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
316	259173.7	4083689	9.73E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
317	259173.7	4083676	9.40E-08	1.48E-06	2.38E-07	1.69E-07	1.98E-06
318	259176.2	4083661	9.04E-08	1.42E-06	2.29E-07	1.63E-07	1.91E-06
319	259176.2	4083644	8.66E-08	1.36E-06	2.19E-07	1.56E-07	1.82E-06
320	259177.9	4083632	8.43E-08	1.33E-06	2.13E-07	1.51E-07	1.78E-06
321	259176.2	4083612	8.00E-08	1.26E-06	2.02E-07	1.44E-07	1.69E-06
322	259177.9	4083597	7.74E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
323	259177.9	4083584	7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
324	259177.9	4083568	7.25E-08	1.14E-06	1.83E-07	1.30E-07	1.53E-06
325	259175.3	4083552	6.98E-08	1.10E-06	1.77E-07	1.25E-07	1.47E-06
326	259174.5	4083536	6.73E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
327	259174.5	4083521	6.52E-08	1.03E-06	1.65E-07	1.17E-07	1.37E-06
328	259227.3	4083721	1.16E-07	1.83E-06	2.95E-07	2.09E-07	2.45E-06
329	259223.1	4083701	1.09E-07	1.71E-06	2.75E-07	1.95E-07	2.29E-06
330	259224	4083688	1.05E-07	1.65E-06	2.65E-07	1.88E-07	2.21E-06
331	259225.6	4083670	9.97E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
332	259223.1	4083655	9.53E-08	1.5E-06	2.41E-07	1.71E-07	2.01E-06
333	259222.3	4083640	9.14E-08	1.44E-06	2.31E-07	1.64E-07	1.93E-06
334	259222.3	4083625	8.81E-08	1.39E-06	2.23E-07	1.58E-07	1.86E-06
335	259222.3	4083609	8.46E-08	1.33E-06	2.14E-07	1.52E-07	1.78E-06
336	259221.4	4083595	8.16E-08	1.29E-06	2.06E-07	1.47E-07	1.72E-06
337	259218.1	4083580	7.84E-08	1.23E-06	1.98E-07	1.41E-07	1.65E-06
338	259221.4	4083564	7.58E-08	1.19E-06	1.92E-07	1.36E-07	1.60E-06
339	259221.4	4083547	7.29E-08	1.15E-06	1.84E-07	1.31E-07	1.54E-06
340	259218.1	4083532	7.02E-08	1.11E-06	1.78E-07	1.26E-07	1.48E-06
341	259255.8	4083717	1.2E-07	1.89E-06	3.03E-07	2.16E-07	2.53E-06
342	259255	4083698	1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
343	259256.6	4083684	1.09E-07	1.71E-06	2.75E-07	1.95E-07	2.29E-06
344	259256.6	4083670	1.04E-07	1.64E-06	2.63E-07	1.87E-07	2.19E-06
345	259254.1	4083653	9.91E-08	1.56E-06	2.51E-07	1.78E-07	2.09E-06
346	259254.1	4083640	9.57E-08	1.51E-06	2.42E-07	1.72E-07	2.02E-06
347	259254.1	4083625	9.18E-08	1.45E-06	2.32E-07	1.65E-07	1.93E-06
348	259254.1	4083610	8.85E-08	1.39E-06	2.24E-07	1.59E-07	1.86E-06
349	259253.3	4083595	8.51E-08	1.34E-06	2.15E-07	1.53E-07	1.79E-06
350	259253.3	4083578	8.15E-08	1.28E-06	2.06E-07	1.47E-07	1.72E-06
351	259252.4	4083565	7.9E-08	1.24E-06	2.00E-07	1.42E-07	1.67E-06
352	259251.6	4083552	7.65E-08	1.2E-06	1.94E-07	1.38E-07	1.61E-06
353	259249.1	4083532	7.3E-08	1.15E-06	1.85E-07	1.31E-07	1.54E-06
354	259300.2	4083769	1.5E-07	2.36E-06	3.79E-07	2.70E-07	3.16E-06
355	259333.7	4083767	1.54E-07	2.42E-06	3.89E-07	2.77E-07	3.24E-06
356	259296.9	4083751	1.41E-07	2.22E-06	3.57E-07	2.54E-07	2.98E-06
357	259332.9	4083750	1.46E-07	2.3E-06	3.69E-07	2.63E-07	3.08E-06
358	259299.4	4083731	1.33E-07	2.09E-06	3.36E-07	2.39E-07	2.80E-06
359	259331.2	4083725	1.35E-07	2.12E-06	3.41E-07	2.43E-07	2.84E-06
360	259303.6	4083714	1.26E-07	1.99E-06	3.19E-07	2.27E-07	2.66E-06
361	259300.2	4083695	1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
362	259300.2	4083674	1.12E-07	1.76E-06	2.82E-07	2.01E-07	2.35E-06
363	259304.4	4083654	1.06E-07	1.67E-06	2.68E-07	1.91E-07	2.23E-06
364	259303.6	4083640	1.02E-07	1.6E-06	2.58E-07	1.83E-07	2.15E-06
365	259302.7	4083615	9.54E-08	1.5E-06	2.41E-07	1.72E-07	2.01E-06
366	259296.9	4083580	8.66E-08	1.36E-06	2.19E-07	1.56E-07	1.83E-06
367	259298.5	4083560	8.27E-08	1.3E-06	2.09E-07	1.49E-07	1.74E-06
368	259300.2	4083540	7.9E-08	1.24E-06	2.00E-07	1.42E-07	1.66E-06
369	259299.4	4083516	7.48E-08	1.18E-06	1.89E-07	1.35E-07	1.58E-06
370	259331.2	4083528	7.97E-08	1.26E-06	2.02E-07	1.43E-07	1.68E-06
371	259330.4	4083551	8.4E-08	1.32E-06	2.12E-07	1.51E-07	1.77E-06
372	259332.1	4083574	8.91E-08	1.4E-06	2.25E-07	1.60E-07	1.88E-06
373	259331.2	4083620	9.98E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
374	259334.6	4083639	1.05E-07	1.66E-06	2.67E-07	1.90E-07	2.22E-06
375	259334.6	4083657	1.11E-07	1.75E-06	2.80E-07	1.99E-07	2.34E-06
376	259332.1	4083682	1.18E-07	1.86E-06	2.99E-07	2.13E-07	2.49E-06
377	259332.9	4083701	1.25E-07	1.98E-06	3.17E-07	2.26E-07	2.64E-06
378	259380.7	4083763	1.57E-07	2.47E-06	3.97E-07	2.82E-07	3.31E-06
379	259383.2	4083739	1.47E-07	2.31E-06	3.72E-07	2.64E-07	3.10E-06
380	259383.2	4083719	1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
381	259409.2	4083762	1.58E-07	2.49E-06	4.00E-07	2.85E-07	3.34E-06

8.68E-08	1.37E-06	2.20E-07	1.56E-07	1.83E-06
8.79E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06
7.99E-08	1.26E-06	2.02E-07	1.44E-07	1.68E-06
7.89E-08	1.24E-06	2.00E-07	1.42E-07	1.66E-06
7.76E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
7.71E-08	1.21E-06	1.95E-07	1.39E-07	1.62E-06
7.63E-08	1.20E-06	1.93E-07	1.37E-07	1.61E-06
7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
7.47E-08	1.18E-06	1.89E-07	1.34E-07	1.57E-06
7.39E-08	1.16E-06	1.87E-07	1.33E-07	1.56E-06
7.33E-08	1.15E-06	1.85E-07	1.32E-07	1.54E-06
7.29E-08	1.15E-06	1.84E-07	1.31E-07	1.54E-06
7.23E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
7.07E-08	1.11E-06	1.79E-07	1.27E-07	1.49E-06
6.88E-08	1.08E-06	1.74E-07	1.24E-07	1.45E-06
6.75E-08	1.06E-06	1.71E-07	1.21E-07	1.42E-06
6.61E-08	1.04E-06	1.67E-07	1.19E-07	1.39E-06
6.52E-08	1.03E-06	1.65E-07	1.17E-07	1.37E-06
6.67E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
6.82E-08	1.07E-06	1.72E-07	1.23E-07	1.44E-06
6.97E-08	1.10E-06	1.76E-07	1.25E-07	1.47E-06
6.96E-08	1.10E-06	1.76E-07	1.25E-07	1.47E-06
6.80E-08	1.07E-06	1.72E-07	1.22E-07	1.43E-06
6.62E-08	1.04E-06	1.67E-07	1.19E-07	1.39E-06
6.46E-08	1.02E-06	1.63E-07	1.16E-07	1.36E-06
6.40E-08	1.01E-06	1.62E-07	1.15E-07	1.35E-06
6.57E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
6.72E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
6.86E-08	1.08E-06	1.73E-07	1.23E-07	1.45E-06
6.83E-08	1.08E-06	1.73E-07	1.23E-07	1.44E-06
6.68E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
6.56E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
6.43E-08	1.01E-06	1.63E-07	1.16E-07	1.35E-06
6.31E-08	9.94E-07	1.60E-07	1.13E-07	1.33E-06
6.49E-08	1.02E-06	1.64E-07	1.17E-07	1.37E-06
6.63E-08	1.04E-06	1.68E-07	1.19E-07	1.40E-06
6.78E-08	1.07E-06	1.72E-07	1.22E-07	1.43E-06
6.71E-08	1.06E-06	1.70E-07	1.21E-07	1.41E-06
6.56E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
6.43E-08	1.01E-06	1.63E-07	1.16E-07	1.36E-06
6.28E-08	9.89E-07	1.59E-07	1.13E-07	1.32E-06
6.09E-08	9.59E-07	1.54E-07	1.10E-07	1.28E-06
7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
7.95E-08	1.25E-06	2.01E-07	1.43E-07	1.68E-06
8.46E-08	1.33E-06	2.14E-07	1.52E-07	1.78E-06
9.17E-08	1.44E-06	2.32E-07	1.65E-07	1.93E-06
9.68E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
1.04E-07	1.64E-06	2.63E-07	1.87E-07	2.19E-06
1.10E-07	1.73E-06	2.78E-07	1.97E-07	2.31E-06
1.47E-07	2.31E-06	3.72E-07	2.64E-07	3.10E-06
1.46E-07	2.30E-06	3.69E-07	2.62E-07	3.07E-06
1.55E-07	2.44E-06	3.92E-07	2.79E-07	3.27E-06
1.61E-07	2.53E-06	4.07E-07	2.89E-07	3.39E-06
1.66E-07	2.61E-06	4.19E-07	2.98E-07	3.49E-06
1.39E-07	2.20E-06	3.53E-07	2.51E-07	2.94E-06
1.37E-07	2.16E-06	3.47E-07	2.46E-07	2.89E-06
1.32E-07	2.07E-06	3.33E-07	2.36E-07	2.77E-06
1.26E-07	1.99E-06	3.19E-07	2.27E-07	2.66E-06
1.20E-07	1.89E-06	3.03E-07	2.16E-07	2.53E-06
1.07E-07	1.69E-06	2.72E-07	1.93E-07	2.26E-06
1.02E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
9.73E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
9.40E-08	1.48E-06	2.38E-07	1.69E-07	1.98E-06
9.04E-08	1.42E-06	2.29E-07	1.63E-07	1.91E-06
8.66E-08	1.36E-06	2.19E-07	1.56E-07	1.82E-06
8.43E-08	1.33E-06	2.13E-07	1.51E-07	1.78E-06
8.00E-08	1.26E-06	2.02E-07	1.44E-07	1.69E-06
7.74E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
7.25E-08	1.14E-06	1.83E-07	1.30E-07	1.53E-06
6.98E-08	1.10E-06	1.77E-07	1.25E-07	1.47E-06
6.73E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
6.52E-08	1.03E-06	1.65E-07	1.17E-07	1.37E-06
1.16E-07	1.83E-06	2.95E-07	2.09E-07	2.45E-06
1.09E-07	1.71E-06	2.75E-07	1.95E-07	2.29E-06
1.05E-07	1.65E-06	2.65E-07	1.88E-07	2.21E-06
9.97E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
9.53E-08	1.50E-06	2.41E-07	1.71E-07	2.01E-06
9.14E-08	1.44E-06	2.31E-07	1.64E-07	1.93E-06
8.81E-08	1.39E-06	2.23E-07	1.58E-07	1.86E-06
8.46E-08	1.33E-06	2.14E-07	1.52E-07	1.78E-06
8.16E-08	1.29E-06	2.06E-07	1.47E-07	1.72E-06
7.84E-08	1.23E-06	1.98E-07	1.41E-07	1.65E-06
7.58E-08	1.19E-06	1.92E-07	1.36E-07	1.60E-06
7.29E-08	1.15E-06	1.84E-07	1.31E-07	1.54E-06
7.02E-08	1.11E-06	1.78E-07	1.26E-07	1.48E-06
1.20E-07	1.89E-06	3.03E-07	2.16E-07	2.53E-06
1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
1.09E-07	1.71E-06	2.75E-07	1.95E-07	2.29E-06
1.04E-07	1.64E-06	2.63E-07	1.87E-07	2.19E-06
9.91E-08	1.56E-06	2.51E-07	1.78E-07	2.09E-06
9.57E-08	1.51E-06	2.42E-07	1.72E-07	2.02E-06
9.18E-08	1.45E-06	2.32E-07	1.65E-07	1.93E-06
8.85E-08	1.39E-06	2.24E-07	1.59E-07	1.86E-06
8.51E-08	1.34E-06	2.15E-07	1.53E-07	1.79E-06
8.15E-08	1.28E-06	2.06E-07	1.47E-07	1.72E-06
7.90E-08	1.24E-06	2.00E-07	1.42E-07	1.67E-06
7.65E-08	1.20E-06	1.94E-07	1.38E-07	1.61E-06
7.30E-08	1.15E-06	1.85E-07	1.31E-07	1.54E-06
1.50E-07	2.36E-06	3.79E-07	2.70E-07	3.16E-06
1.54E-07	2.42E-06	3.89E-07	2.77E-07	3.24E-06
1.41E-07	2.22E-06	3.57E-07	2.54E-07	2.98E-06
1.46E-07	2.30E-06	3.69E-07	2.63E-07	3.08E-06
1.33E-07	2.09E-06	3.36E-07	2.39E-07	2.80E-06
1.35E-07	2.12E-06	3.41E-07	2.43E-07	2.84E-06
1.26E-07	1.99E-06	3.19E-07	2.27E-07	2.66E-06
1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
1.12E-07	1.76E-06	2.82E-07	2.01E-07	2.35E-06
1.06E-07	1.67E-06	2.68E-07	1.91E-07	2.23E-06
1.02E-07	1.60E-06	2.58E-07	1.83E-07	2.15E-06
9.54E-08	1.50E-06	2.41E-07	1.72E-07	2.01E-06
8.66E-08	1.36E-06	2.19E-07	1.56E-07	1.83E-06
8.27E-08	1.30E-06	2.09E-07	1.49E-07	1.74E-06
7.90E-08	1.24E-06	2.00E-07	1.42E-07	1.66E-06
7.48E-08	1.18E-06	1.89E-07	1.35E-07	1.58E-06
7.97E-08	1.26E-06	2.02E-07	1.43E-07	1.68E-06
8.40E-08	1.32E-06	2.12E-07	1.51E-07	1.77E-06
8.91E-08	1.40E-06	2.25E-07	1.60E-07	1.88E-06
9.98E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
1.05E-07	1.66E-06	2.67E-07	1.90E-07	2.22E-06
1.11E-07	1.75E-06	2.80E-07	1.99E-07	2.34E-06
1.18E-07	1.86E-06	2.99E-07	2.13E-07	2.49E-06
1.25E-07	1.98E-06	3.17E-07	2.26E-07	2.64E-06
1.57E-07	2.47E-06	3.97E-07	2.82E-07	3.31E-06
1.47E-07	2.31E-06	3.72E-07	2.64E-07	3.10E-06
1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
1.58E-07	2.49E-06	4.00E-07	2.85E-07	3.34E-06

1.32E-08	2.39E-07	3.61E-08	2.53E-08	3.13E-07
1.34E-08	2.42E-07	3.65E-08	2.56E-08	3.17E-07
1.21E-08	2.20E-07	3.32E-08	2.32E-08	2.88E-07
1.20E-08	2.17E-07	3.28E-08	2.30E-08	2.85E-07
1.18E-08	2.13E-07	3.22E-08	2.26E-08	2.80E-07
1.17E-08	2.12E-07	3.20E-08	2.24E-08	2.78E-07
1.16E-08	2.10E-07	3.17E-08	2.22E-08	2.75E-07
1.14E-08	2.07E-07	3.12E-08	2.19E-08	2.71E-07
1.14E-08	2.07E-07	3.12E-08	2.19E-08	2.71E-07
1.14E-08	2.05E-07	3.10E-08	2.17E-08	2.69E-07
1.12E-08	2.03E-07	3.07E-08	2.15E-08	2.67E-07
1.11E-08	2.01E-07	3.04E-08	2.13E-08	2.64E-07
1.11E-08	2.00E-07	3.03E-08	2.12E-08	2.63E-07
1.10E-08	1.99E-07	3.00E-08	2.10E-08	2.61E-07
1.07E-08	1.94E-07	2.93E-08	2.06E-08	2.55E-07
1.05E-08	1.89E-07	2.86E-08	2.00E-08	2.48E-07
1.03E-08	1.86E-07	2.80E-08	1.97E-08	2.44E-07
1.01E-08	1.82E-07	2.75E-08	1.92E-08	2.39E-07
9.92E-09	1.79E-07	2.71E-08	1.90E-08	2.35E-07
1.01E-08	1.83E-07	2.77E-08	1.94E-08	2.41E-07
1.04E-08	1.87E-07	2.83E-08	1.98E-08	2.46E-07
1.06E-08	1.92E-07	2.90E-08	2.03E-08	2.52E-07
1.06E-08	1.91E-07	2.89E-08	2.03E-08	2.51E-07
1.03E-08	1.87E-07	2.82E-08	1.98E-08	2.45E-07
1.01E-08	1.82E-07	2.75E-08	1.93E-08	2.39E-07
9.83E-09	1.78E-07	2.68E-08	1.88E-08	2.33E-07
9.73E-09	1.76E-07	2.66E-08	1.86E-08	2.31E-07
9.99E-09	1.81E-07	2.73E-08	1.91E-08	2.37E-07
1.02E-08	1.85E-07	2.79E-08	1.96E-08	2.43E-07
1.04E-08	1.89E-07	2.85E-08	2.00E-08	2.47E-07
1.04E-08	1.88E-07	2.84E-08	1.99E-08	2.46E-07
1.02E-08	1.84E-07	2.77E-08	1.94E-08	2.41E-07
9.98E-09	1.80E-07	2.72E-08	1.91E-08	2.37E-07
9.77E-09	1.77E-07	2.67E-08	1.87E-08	2.32E-07
9.60E-09	1.74E-07	2.62E-08	1.84E-08	2.28E-07
9.87E-09	1.78E-07	2.69E-08	1.89E-08

382	259440.2	4083754	1.56E-07	2.46E-06	3.95E-07	2.81E-07	3.29E-06
383	259462	4083745	1.53E-07	2.41E-06	3.87E-07	2.75E-07	3.22E-06
384	259487.1	4083728	1.47E-07	2.31E-06	3.71E-07	2.64E-07	3.09E-06
385	259500.5	4083718	1.44E-07	2.26E-06	3.63E-07	2.58E-07	3.03E-06
386	259513.1	4083703	1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
387	259530.7	4083681	1.32E-07	2.08E-06	3.34E-07	2.37E-07	2.78E-06
388	259549.1	4083656	1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
389	259566.7	4083637	1.21E-07	1.9E-06	3.05E-07	2.17E-07	2.54E-06
390	259583.5	4083619	1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06
391	259594.4	4083605	1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.39E-06
392	259612.8	4083590	1.1E-07	1.73E-06	2.78E-07	1.98E-07	2.32E-06
393	259627	4083576	1.07E-07	1.69E-06	2.71E-07	1.92E-07	2.26E-06
394	259651.4	4083560	1.04E-07	1.64E-06	2.63E-07	1.87E-07	2.19E-06
395	259611.1	4083552	1.02E-07	1.61E-06	2.58E-07	1.84E-07	2.15E-06
396	259586.8	4083567	1.05E-07	1.65E-06	2.65E-07	1.88E-07	2.21E-06
397	259570.9	4083580	1.07E-07	1.69E-06	2.72E-07	1.93E-07	2.26E-06
398	259553.3	4083596	1.11E-07	1.74E-06	2.80E-07	1.99E-07	2.33E-06
399	259538.2	4083612	1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06
400	259523.1	4083636	1.2E-07	1.89E-06	3.03E-07	2.15E-07	2.52E-06
401	259503	4083653	1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.61E-06
402	259491.3	4083672	1.29E-07	2.03E-06	3.26E-07	2.32E-07	2.72E-06
403	259473.7	4083692	1.34E-07	2.12E-06	3.40E-07	2.42E-07	2.83E-06
404	259459.4	4083706	1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
405	259439.3	4083715	1.41E-07	2.22E-06	3.57E-07	2.54E-07	2.97E-06
406	259415	4083722	1.42E-07	2.24E-06	3.59E-07	2.55E-07	2.99E-06
407	259466.1	4083626	1.14E-07	1.8E-06	2.89E-07	2.06E-07	2.41E-06
408	259465.3	4083603	1.08E-07	1.7E-06	2.74E-07	1.94E-07	2.28E-06
409	259464.5	4083581	1.03E-07	1.62E-06	2.60E-07	1.85E-07	2.16E-06
410	259461.1	4083557	9.68E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
411	259479.6	4083562	9.92E-08	1.56E-06	2.51E-07	1.78E-07	2.09E-06
412	259498	4083557	9.94E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
413	259524	4083557	1.01E-07	1.58E-06	2.54E-07	1.81E-07	2.12E-06
414	259719.2	4083521	9.68E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
415	259693.3	4083511	9.54E-08	1.5E-06	2.41E-07	1.71E-07	2.01E-06
416	259669.8	4083505	9.42E-08	1.48E-06	2.38E-07	1.69E-07	1.98E-06
417	259648	4083505	9.4E-08	1.48E-06	2.38E-07	1.69E-07	1.98E-06
418	259622.9	4083505	9.35E-08	1.47E-06	2.37E-07	1.68E-07	1.97E-06
419	259607.8	4083506	9.35E-08	1.47E-06	2.37E-07	1.68E-07	1.97E-06
420	259586.8	4083506	9.29E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
421	259565	4083511	9.29E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
422	259545.8	4083506	9.12E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
423	259531.5	4083510	9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
424	259509.7	4083510	9.01E-08	1.42E-06	2.28E-07	1.62E-07	1.90E-06
425	259488.8	4083511	8.91E-08	1.4E-06	2.25E-07	1.60E-07	1.88E-06
426	259472	4083511	8.8E-08	1.39E-06	2.23E-07	1.58E-07	1.85E-06
427	259457.8	4083511	8.72E-08	1.37E-06	2.20E-07	1.57E-07	1.84E-06
428	259432.6	4083513	8.56E-08	1.35E-06	2.16E-07	1.54E-07	1.80E-06
429	259382.3	4083678	1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
430	259385.7	4083652	1.15E-07	1.82E-06	2.92E-07	2.07E-07	2.43E-06
431	259381.5	4083634	1.09E-07	1.72E-06	2.77E-07	1.97E-07	2.30E-06
432	259379	4083613	1.03E-07	1.63E-06	2.61E-07	1.86E-07	2.18E-06
433	259379.8	4083594	9.86E-08	1.55E-06	2.49E-07	1.77E-07	2.08E-06
434	259383.2	4083565	9.21E-08	1.45E-06	2.33E-07	1.65E-07	1.94E-06
435	259383.2	4083546	8.79E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06
436	259379	4083522	8.29E-08	1.31E-06	2.10E-07	1.49E-07	1.75E-06
437	259416.7	4083671	1.24E-07	1.96E-06	3.15E-07	2.24E-07	2.62E-06
438	259415.9	4083654	1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
439	259415	4083632	1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.36E-06
440	259414.2	4083614	1.07E-07	1.68E-06	2.71E-07	1.92E-07	2.25E-06
441	259413.4	4083593	1.01E-07	1.6E-06	2.57E-07	1.82E-07	2.14E-06
442	259413.4	4083575	9.72E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
443	259413.4	4083557	9.32E-08	1.47E-06	2.36E-07	1.68E-07	1.96E-06
444	259413.4	4083535	8.84E-08	1.39E-06	2.24E-07	1.59E-07	1.86E-06
445	258912.1	4083605	6.16E-08	9.69E-07	1.56E-07	1.11E-07	1.30E-06
446	258900.3	4083603	6.1E-08	9.61E-07	1.54E-07	1.10E-07	1.29E-06
447	258887.8	4083604	6.09E-08	9.58E-07	1.54E-07	1.09E-07	1.28E-06
448	258878.5	4083605	6.08E-08	9.57E-07	1.54E-07	1.09E-07	1.28E-06
449	258868.5	4083605	6.05E-08	9.53E-07	1.53E-07	1.09E-07	1.28E-06
450	258857.6	4083605	6.03E-08	9.5E-07	1.53E-07	1.08E-07	1.27E-06
451	258844.2	4083606	6.01E-08	9.47E-07	1.52E-07	1.08E-07	1.27E-06
452	258913.7	4083585	5.92E-08	9.33E-07	1.50E-07	1.06E-07	1.25E-06
453	258900.3	4083585	5.89E-08	9.27E-07	1.49E-07	1.06E-07	1.24E-06
454	258890.3	4083585	5.88E-08	9.25E-07	1.49E-07	1.06E-07	1.24E-06
455	258879.4	4083585	5.85E-08	9.22E-07	1.48E-07	1.05E-07	1.23E-06
456	258866.8	4083586	5.84E-08	9.19E-07	1.48E-07	1.05E-07	1.23E-06
457	258851.7	4083586	5.81E-08	9.15E-07	1.47E-07	1.04E-07	1.22E-06
458	258845.9	4083587	5.81E-08	9.14E-07	1.47E-07	1.04E-07	1.22E-06
459	258919.6	4083518	5.26E-08	8.29E-07	1.33E-07	9.46E-08	1.11E-06
460	258920.4	4083529	5.37E-08	8.46E-07	1.36E-07	9.66E-08	1.13E-06
461	258920.4	4083540	5.48E-08	8.62E-07	1.39E-07	9.84E-08	1.15E-06
462	258920.4	4083552	5.59E-08	8.8E-07	1.41E-07	1.01E-07	1.18E-06
463	258894.5	4083554	5.56E-08	8.76E-07	1.41E-07	1.00E-07	1.17E-06
464	258893.6	4083540	5.43E-08	8.54E-07	1.37E-07	9.75E-08	1.14E-06
465	258893.6	4083530	5.33E-08	8.39E-07	1.35E-07	9.58E-08	1.12E-06
466	258893.6	4083520	5.24E-08	8.25E-07	1.33E-07	9.42E-08	1.10E-06
467	258874.3	4083519	5.2E-08	8.19E-07	1.32E-07	9.35E-08	1.10E-06
468	258874.3	4083531	5.31E-08	8.36E-07	1.34E-07	9.54E-08	1.12E-06
469	258874.3	4083540	5.39E-08	8.49E-07	1.36E-07	9.69E-08	1.14E-06
470	258873.5	4083553	5.51E-08	8.68E-07	1.39E-07	9.91E-08	1.16E-06
471	258850	4083556	5.5E-08	8.66E-07	1.39E-07	9.89E-08	1.16E-06
472	258846.7	4083544	5.38E-08	8.47E-07	1.36E-07	9.67E-08	1.13E-06
473	258846.7	4083533	5.29E-08	8.33E-07	1.34E-07	9.51E-08	1.11E-06
474	258846.7	4083524	5.21E-08	8.2E-07	1.32E-07	9.36E-08	1.10E-06
475	258828.3	4083520	5.14E-08	8.09E-07	1.30E-07	9.24E-08	1.08E-06
476	258827.4	4083530	5.23E-08	8.23E-07	1.32E-07	9.40E-08	1.10E-06
477	258828.3	4083544	5.35E-08	8.42E-07	1.35E-07	9.62E-08	1.13E-06
478	258828.3	4083555	5.46E-08	8.6E-07	1.38E-07	9.81E-08	1.15E-06
479	258798.1	4083557	5.42E-08	8.54E-07	1.37E-07	9.75E-08	1.14E-06
480	258797.2	4083546	5.32E-08	8.37E-07	1.35E-07	9.56E-08	1.12E-06
481	258798.1	4083533	5.2E-08	8.19E-07	1.32E-07	9.35E-08	1.10E-06
482	258797.2	4083523	5.11E-08	8.04E-07	1.29E-07	9.18E-08	1.08E-06
483	258945.6	4083664	7.06E-08	1.11E-06	1.79E-07	1.27E-07	1.49E-06
484	258943.9	4083651	6.86E-08	1.08E-06	1.73E-07	1.23E-07	1.45E-06
485	258943.1	4083639	6.69E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
486	258943.9	4083628	6.55E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
487	258970.7	4083661	7.12E-08	1.12E-06	1.80E-07	1.28E-07	1.50E-06
488	258990	4083661	7.25E-08	1.14E-06	1.83E-07	1.30E-07	1.53E-06
489	258972.4	4083649	6.96E-08	1.1E-06	1.76E-07	1.25E-07	1.47E-06
490	258992.5	4083647	7.06E-08	1.11E-06	1.78E-07	1.27E-07	1.49E-06
491	258969	4083635	6.74E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
492	258990	4083632	6.81E-08	1.07E-06	1.72E-07	1.22E-07	1.44E-06
493	259017.7	4083660	7.4E-08	1.17E-06	1.87E-07	1.33E-07	1.56E-06
494	259016.8	4083645	7.15E-08	1.13E-06	1.81E-07	1.29E-07	1.51E-06
495	259016.8	4083631	6.94E-08	1.09E-06	1.76E-07	1.25E-07	1.46E-06
496	259035.3	4083631	7.06E-08	1.11E-06	1.79E-07	1.27E-07	1.49E-06
497	259035.3	4083642	7.23E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
498	259036.1	4083659	7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
499	259064.6	4083659	7.75E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
500	259062.1	4083642	7.43E-08	1.17E-06	1.88E-07	1.34E-07	1.57E-06
501	259062.1	4083630	7.23E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
502	259083	4083626	7.34E-08	1.16E-06	1.86E-07	1.32E-07	1.55E-06
503	259084.7	4083639	7.58E-08	1.19E-06	1.92E-07	1.36E-07	1.60E-06
504	259084.7	4083657	7.92E-08	1.25E-06	2.00E-07	1.42E-07	1.67E-06
505	259110.7	4083657	8.19E-08	1.29E-06	2.07E-07	1.47E-07	1.73E-06
506	259108.2	4083647	7.95E-08	1.25E-06	2.01E-07	1.43E-07	1.68E-06
507	259106.5	4083636	7.73E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
508	259106.5	4083622	7.49E-08	1.18E-06	1.89E-07	1.35E-07	1.58E-06
509	258941.4	4083551	5.63E-08	8.87E-07	1.42E-07	1.01E-07	1.19E-06

1.56E-07	2.46E-06	3.95E-07	2.81E-07	3.29E-06
1.53E-07	2.41E-06	3.87E-07	2.75E-07	3.22E-06
1.47E-07	2.31E-06	3.71E-07	2.64E-07	3.09E-06
1.44E-07	2.26E-06	3.63E-07	2.58E-07	3.03E-06
1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
1.32E-07	2.08E-06	3.34E-07	2.37E-07	2.78E-06
1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
1.21E-07	1.90E-06	3.05E-07	2.17E-07	2.54E-06
1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06
1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.39E-06
1.10E-07	1.73E-06	2.78E-07	1.98E-07	2.32E-06
1.07E-07	1.69E-06	2.71E-07	1.92E-07	2.26E-06
1.04E-07	1.64E-06	2.63E-07	1.87E-07	2.19E-06
1.02E-07	1.61E-06	2.58E-07	1.84E-07	2.15E-06
1.05E-07	1.65E-06	2.65E-07	1.88E-07	2.21E-06
1.07E-07	1.69E-06	2.72E-07	1.93E-07	2.26E-06
1.11E-07	1.74E-06	2.80E-07	1.99E-07	2.33E-06
1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06
1.20E-07	1.89E-06	3.03E-07	2.15E-07	2.52E-06
1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.61E-06
1.29E-07	2.03E-06	3.26E-07	2.32E-07	2.72E-06
1.34E-07	2.12E-06	3.40E-07	2.42E-07	2.83E-06
1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
1.41E-07	2.22E-06	3.57E-07	2.54E-07	2.97E-06
1.42E-07	2.24E-06	3.59E-07	2.55E-07	2.99E-06
1.14E-07	1.80E-06	2.89E-07	2.06E-07	2.41E-06
1.08E-07	1.70E-06	2.74E-07	1.94E-07	2.28E-06
1.03E-07	1.62E-06	2.60E-07	1.85E-07	2.16E-06
9.68E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
9.92E-08	1.56E-06	2.51E-07	1.78E-07	2.09E-06
9.94E-08	1.57E-06	2.52E-07	1.79E-07	2.10E-06
1.01E-07	1.58E-06	2.54E-07	1.81E-07	2.12E-06
9.68E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
9.54E-08	1.50E-06	2.41E-07	1.71E-07	2.01E-06
9.42E-08	1.48E-06	2.38E-07	1.69E-07	1.98E-06
9.40E-08	1.48E-06	2.38E-07	1.69E-07	1.98E-06
9.35E-08	1.47E-06	2.37E-07	1.68E-07	1.97E-06
9.35E-08	1.47E-06	2.37E-07	1.68E-07	1.97E-06
9.29E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
9.29E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
9.12E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
9.01E-08	1.42E-06	2.28E-07	1.62E-07	1.90E-06
8.91E-08	1.40E-06	2.25E-07	1.60E-07	1.88E-06
8.80E-08	1.39E-06	2.23E-07	1.58E-07	1.85E-06
8.72E-08	1.37E-06	2.20E-07	1.57E-07	1.84E-06
8.56E-08	1.35E-06	2.16E-07	1.54E-07	1.80E-06
1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
1.15E-07	1.82E-06	2.92E-07	2.07E-07	2.43E-06
1.09E-07	1.72E-06	2.77E-07	1.97E-07	2.30E-06
1.03E-07	1.63E-06	2.61E-07	1.86E-07	2.18E-06
9.86E-08	1.55E-06	2.49E-07	1.77E-07	2.08E-06
9.21E-08	1.45E-06	2.33E-07	1.65E-07	1.94E-06
8.79E-08	1.38E-06	2.22E-07	1.58E-07	1.85E-06
8.29E-08	1.31E-06	2.10E-07	1.49E-07	1.75E-06
1.24E-07	1.96E-06	3.15E-07	2.24E-07	2.62E-06
1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.36E-06
1.07E-07	1.68E-06	2.71E-07	1.92E-07	2.25E-06
1.01E-07	1.60E-06	2.57E-07	1.82E-07	2.14E-06
9.72E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
9.32E-08	1.47E-06	2.36E-07	1.68E-07	1.96E-06
8.84E-08	1.39E-06	2.24E-07	1.59E-07	1.86E-06
6.16E-08	9.69E-07	1.56E-07	1.11E-07	1.30E-06
6.10E-08	9.61E-07	1.54E-07	1.10E-07	1.29E-06
6.09E-08	9.58E-07	1.54E-07	1.09E-07	1.28E-06
6.08E-08	9.57E-07	1.54E-07	1.09E-07	1.28E-06
6.05E-08	9.53E-07	1.53E-07	1.09E-07	1.28E-06
6.03E-08	9.50E-07	1.53E-07	1.08E-07	1.27E-06
6.01E-08	9.47E-07	1.52E-07	1.08E-07	1.27E-06
5.92E-08	9.33E-07	1.50E-07	1.06E-07	1.25E-06
5.89E-08	9.27E-07	1.49E-07	1.06E-07	1.24E-06
5.88E-08	9.25E-07	1.49E-07	1.06E-07	1.24E-06
5.85E-08	9.22E-07	1.48E-07	1.05E-07	1.23E-06
5.84E-08	9.19E-07	1.48E-07	1.05E-07	1.23E-06
5.81E-08	9.15E-07	1.47E-07	1.04E-07	1.22E-06
5.81E-08	9.14E-07	1.47E-07	1.04E-07	1.22E-06
5.26E-08	8.29E-07	1.33E-07	9.46E-08	1.11E-06
5.37E-08	8.46E-07	1.36E-07	9.66E-08	1.13E-06
5.48E-08	8.62E-07	1.39E-07	9.84E-08	1.15E-06
5.59E-08	8.80E-07	1.41E-07	1.01E-07	1.18E-06
5.56E-08	8.76E-07	1.41E-07	1.00E-07	1.17E-06
5.43E-08	8.54E-07	1.37E-07	9.75E-08	1.14E-06
5.33E-08	8.39E-07	1.35E-07	9.58E-08	1.12E-06
5.24E-08	8.25E-07	1.33E-07	9.42E-08	1.10E-06
5.20E-08	8.19E-07	1.32E-07	9.35E-08	1.10E-06
5.31E-08	8.36E-07	1.34E-07	9.54E-08	1.12E-06
5.39E-08	8.49E-07	1.36E-07	9.69E-08	1.14E-06
5.51E-08	8.68E-07	1.39E-07	9.91E-08	1.16E-06
5.50E-08	8.66E-07	1.39E-07	9.89E-08	1.16E-06
5.38E-08	8.47E-07	1.36E-07	9.67E-08	1.13E-06
5.29E-08	8.33E-07	1.34E-07	9.51E-08	1.11E-06
5.21E-08	8.20E-07	1.32E-07	9.36E-08	1.10E-06
5.14E-08	8.09E-07	1.30E-07	9.24E-08	1.08E-06
5.23E-08	8.23E-07	1.32E-07	9.40E-08	1.10E-06
5.35E-08	8.42E-07	1.35E-07	9.62E-08	1.13E-06
5.46E-08	8.60E-07	1.38E-07	9.81E-08	1.15E-06
5.42E-08	8.54E-07	1.37E-07	9.75E-08	1.14E-06
5.32E-08	8.37E-07	1.35E-07	9.56E-08	1.12E-06
5.20E-08	8.19E-07	1.32E-07	9.35E-08	1.10E-06
5.11E-08	8.04E-07	1.29E-07	9.18E-08	1.08E-06
7.06E-08	1.11E-06	1.79E-07	1.27E-07	1.49E-06
6.86E-08	1.08E-06	1.73E-07	1.23E-07	1.45E-06
6.69E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
6.55E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
7.12E-08	1.12E-06	1.80E-07	1.28E-07	1.50E-06
7.25E-08	1.14E-06	1.83E-07	1.30E-07	1.53E-06
6.96E-08	1.10E-06	1.76E-07	1.25E-07	1.47E-06
7.06E-08	1.11E-06	1.78E-07	1.27E-07	1.49E-06
6.74E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
6.81E-08	1.07E-06	1.72E-07	1.22E-07	1.44E-06
7.40E-08	1.17E-06	1.87E-07	1.33E-07	1.56E-06
7.15E-08	1.13E-06	1.81E-07	1.29E-07	1.51E-06
6.94E-08	1.09E-06	1.76E-07	1.25E-07	1.46E-06
7.06E-08	1.11E-06	1.79E-07	1.27E-07	1.49E-06
7.23E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
7.52E-08	1.18E-06	1.90E-07	1.35E-07	1.58E-06
7.75E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
7.43E-08	1.17E-06	1.88E-07	1.34E-07	1.57E-06
7.23E-08	1.14E-06	1.83E-07	1.30E-07	1.52E-06
7.34E-08	1.16E-06	1.86E-07	1.32E-07	1.55E-06
7.58E-08	1.19E-06	1.92E-07	1.36E-07	1.60E-06
7.92E-08	1.25E-06	2.00E-07	1.42E-07	1.67E-06
8.19E-08	1.29E-06	2.07E-07	1.47E-07	1.73E-06
7.95E-08	1.25E-06	2.01E-07	1.43E-07	1.68E-06
7.73E-08	1.22E-06	1.96E-07	1.39E-07	1.63E-06
7.49E-08	1.18E-06	1.89E-07	1.35E-07	1.58E-06
5.63E-08	8.87E-07	1.42E-07	1.01E-07	1.19E-06

2.37E-08	4.30E-07	6.49E-08	4.55E-08	5.64E-07
2.32E-08	4.20E-07	6.35E-08	4.45E-08	5.52E-07
2.23E-08	4.03E-07	6.09E-08	4.27E-08	5.29E-07
2.18E-08	3.95E-07	5.96E-08	4.18E-08	5.18E-07
2.11E-08	3.82E-07	5.76E-08	4.04E-08	5.01E-07
2.01E-08	3.63E-07	5.48E-08	3.84E-08	4.77E-07
1.90E-08	3.44E-07	5.20E-08	3.64E-08	4.52E-07
1.83E-08	3.32E-07	5.01E-08	3.51E-08	4.35E-07
1.77E-08	3.20E-07	4.83E-08	3.38E-08	4.19E-07
1.72E-08	3.11E-07	4.70E-08	3.29E-08	4.08E-07
1.67E-08	3.02E-07	4.57E-08	3.20E-08	3.97E-07
1.63E-08	2.94E-07	4.45E-08	3.12E-08	3.86E-07
1.58E-08	2.86E-07	4.32E-08	3.03E-08	3.75E-07
1.55E-08	2.81E-07	4.24E-08	2.97E-08	3.68E-07
1.59E-08	2.88E-07	4.35E-08	3.05E-08	3.78E-07
1.63E-08	2.95E-07	4.46E-08	3.12E-08	3.87E-07
1.68E-08	3.04E-07	4.59E-08	3.22E-08	3.99E-07
1.73E-08	3.13E-07	4.73E-08	3.32E-08	4.11E-07
1.82E-08	3.29E-07	4.97E-08	3.48E-08	4.32E-07
1.88E-08	3.40E-07	5.14E-08	3.60E-08	4.46E-07
1.96E-08	3.55E-07	5.36E-08	3.75E-08	4.65E-07
2.04E-08	3.70E-07	5.58E-08	3.91E-08	4.85E-07
2.11E-08	3.81E-07	5.76E-08	4.04E-08	5.00E-07
2.14E-08	3.88E-07	5.86E-08	4.10E-08	5.09E-07
2.16E-08	3.91E-07	5.90E-08	4.13E-08	5.13E-07
1.74E-08	3.15E-07	4.75E-08	3.33E-08	4.13E-07
1.64E-08	2.97E-07	4.49E-08	3.15E-08	3.90E-07
1.56E-08	2.82E-07	4.26E-08	2.99E-08	3.71E-07
1.47E-08	2.66E-07	4.02E-08	2.82E-08	3.49E-07
1.51E-08	2.73E-07	4.12E-08	2.89E-08	3.58E-07
1.51E-08	2.73E-07	4.13E-08	2.89E-08	3.59E-07
1.53E-08	2.77E-07	4.18E-08	2.93E-08	3.63E-07
1.47E-08	2.66E-07	4.02E-08	2.82E-08	3.49E-07
1.45E-08	2.62E-07	3.96E-08	2.78E-08	3.44E-07
1.43E-08	2.59E-07	3.91E-08	2.74E-08	3.40E-07
1.43E-08	2.58E-07	3.90E-08	2.73E-08	3.39E-07
1.42E-08

510	258940.6	4083540	5.52E-08	8.69E-07	1.40E-07	9.93E-08	1.16E-06
511	258941.4	4083530	5.43E-08	8.54E-07	1.37E-07	9.75E-08	1.14E-06
512	258938	4083517	5.29E-08	8.33E-07	1.34E-07	9.51E-08	1.12E-06
513	258969	4083551	5.72E-08	9.01E-07	1.45E-07	1.03E-07	1.21E-06
514	258987.5	4083551	5.79E-08	9.11E-07	1.46E-07	1.04E-07	1.22E-06
515	258991.7	4083541	5.7E-08	8.97E-07	1.44E-07	1.02E-07	1.20E-06
516	258990.8	4083528	5.55E-08	8.74E-07	1.40E-07	9.98E-08	1.17E-06
517	258990.8	4083516	5.44E-08	8.56E-07	1.38E-07	9.77E-08	1.15E-06
518	258968.2	4083516	5.36E-08	8.43E-07	1.35E-07	9.63E-08	1.13E-06
519	258969	4083527	5.46E-08	8.6E-07	1.38E-07	9.82E-08	1.15E-06
520	258966.5	4083538	5.58E-08	8.78E-07	1.41E-07	1.00E-07	1.18E-06
521	259014.3	4083549	5.87E-08	9.24E-07	1.48E-07	1.05E-07	1.24E-06
522	259011.8	4083537	5.73E-08	9.02E-07	1.45E-07	1.03E-07	1.21E-06
523	259011.8	4083528	5.63E-08	8.87E-07	1.42E-07	1.01E-07	1.19E-06
524	259011	4083515	5.5E-08	8.66E-07	1.39E-07	9.89E-08	1.16E-06
525	259033.6	4083548	5.95E-08	9.36E-07	1.50E-07	1.07E-07	1.25E-06
526	259032.7	4083540	5.86E-08	9.22E-07	1.48E-07	1.05E-07	1.23E-06
527	259031.1	4083531	5.75E-08	9.05E-07	1.45E-07	1.03E-07	1.21E-06
528	259033.6	4083520	5.64E-08	8.89E-07	1.43E-07	1.01E-07	1.19E-06
529	259059.6	4083549	6.09E-08	9.59E-07	1.54E-07	1.09E-07	1.28E-06
530	259057	4083537	5.94E-08	9.35E-07	1.50E-07	1.07E-07	1.25E-06
531	259056.2	4083527	5.82E-08	9.17E-07	1.47E-07	1.05E-07	1.23E-06
532	259055.4	4083518	5.72E-08	9E-07	1.45E-07	1.03E-07	1.20E-06
533	259079.7	4083549	6.21E-08	9.77E-07	1.57E-07	1.12E-07	1.31E-06
534	259079.7	4083538	6.08E-08	9.58E-07	1.54E-07	1.09E-07	1.28E-06
535	259078.8	4083528	5.95E-08	9.37E-07	1.51E-07	1.07E-07	1.25E-06
536	259078.8	4083516	5.82E-08	9.16E-07	1.47E-07	1.05E-07	1.23E-06
537	259108.2	4083590	6.98E-08	1.1E-06	1.77E-07	1.25E-07	1.47E-06
538	259107.3	4083581	6.84E-08	1.08E-06	1.73E-07	1.23E-07	1.44E-06
539	259105.7	4083572	6.69E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
540	259105.7	4083561	6.54E-08	1.03E-06	1.65E-07	1.18E-07	1.38E-06
541	259107.3	4083554	6.45E-08	1.02E-06	1.63E-07	1.16E-07	1.36E-06
542	259106.5	4083540	6.27E-08	9.88E-07	1.59E-07	1.13E-07	1.32E-06
543	259106.5	4083531	6.16E-08	9.7E-07	1.56E-07	1.11E-07	1.30E-06
544	259108.2	4083518	6.01E-08	9.46E-07	1.52E-07	1.08E-07	1.27E-06
545	258943.9	4083582	5.99E-08	9.43E-07	1.51E-07	1.08E-07	1.26E-06
546	258957.3	4083581	6.02E-08	9.48E-07	1.52E-07	1.08E-07	1.27E-06
547	258966.5	4083580	6.04E-08	9.52E-07	1.53E-07	1.09E-07	1.27E-06
548	258981.6	4083580	6.1E-08	9.6E-07	1.54E-07	1.10E-07	1.29E-06
549	258998.4	4083580	6.17E-08	9.71E-07	1.56E-07	1.11E-07	1.30E-06
550	259007.6	4083580	6.21E-08	9.78E-07	1.57E-07	1.12E-07	1.31E-06
551	259025.2	4083580	6.28E-08	9.89E-07	1.59E-07	1.13E-07	1.32E-06
552	259038.6	4083579	6.34E-08	9.99E-07	1.60E-07	1.14E-07	1.34E-06
553	259050.3	4083579	6.41E-08	1.01E-06	1.62E-07	1.15E-07	1.35E-06
554	259062.1	4083579	6.48E-08	1.02E-06	1.64E-07	1.17E-07	1.37E-06
555	259078	4083579	6.59E-08	1.04E-06	1.67E-07	1.18E-07	1.39E-06
556	259078.8	4083594	6.8E-08	1.07E-06	1.72E-07	1.22E-07	1.43E-06
557	259065.4	4083595	6.73E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
558	259057.9	4083596	6.7E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
559	259044.5	4083597	6.62E-08	1.04E-06	1.68E-07	1.19E-07	1.40E-06
560	259033.6	4083598	6.57E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
561	259022.7	4083598	6.51E-08	1.02E-06	1.65E-07	1.17E-07	1.37E-06
562	259005.9	4083598	6.42E-08	1.01E-06	1.62E-07	1.15E-07	1.35E-06
563	258994.2	4083598	6.37E-08	1E-06	1.61E-07	1.14E-07	1.34E-06
564	258981.6	4083599	6.32E-08	9.95E-07	1.60E-07	1.14E-07	1.33E-06
565	258969	4083600	6.28E-08	9.89E-07	1.59E-07	1.13E-07	1.32E-06
566	258957.3	4083599	6.23E-08	9.81E-07	1.58E-07	1.12E-07	1.31E-06
567	258950.6	4083599	6.21E-08	9.77E-07	1.57E-07	1.12E-07	1.31E-06
568	258940.6	4083600	6.2E-08	9.76E-07	1.57E-07	1.11E-07	1.31E-06
569	258720.9	4083525	5.01E-08	7.88E-07	1.27E-07	9.00E-08	1.05E-06
570	258702.9	4083525	4.98E-08	7.84E-07	1.26E-07	8.95E-08	1.05E-06
571	258622.5	4083542	4.99E-08	7.86E-07	1.26E-07	8.97E-08	1.05E-06
572	258457.4	4083634	5.74E-08	9.04E-07	1.45E-07	1.03E-07	1.21E-06
573	258388.9	4083538	4.78E-08	7.52E-07	1.21E-07	8.59E-08	1.01E-06
574	258372.7	4083540	4.78E-08	7.52E-07	1.21E-07	8.59E-08	1.01E-06
575	258435.5	4083663	6.06E-08	9.54E-07	1.53E-07	1.09E-07	1.28E-06
576	258435.5	4083648	5.88E-08	9.26E-07	1.49E-07	1.06E-07	1.24E-06
577	258306.6	4084064	1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.56E-06
578	258298.9	4084051	1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
579	258452.9	4084020	1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.83E-06
580	258456.4	4084028	1.37E-07	2.15E-06	3.46E-07	2.46E-07	2.88E-06
581	258534.2	4083931	1.17E-07	1.85E-06	2.97E-07	2.11E-07	2.47E-06
582	258533.4	4083942	1.2E-07	1.9E-06	3.05E-07	2.17E-07	2.54E-06
583	258620.6	4084198	2.35E-07	3.69E-06	5.94E-07	4.22E-07	4.94E-06
584	258623.2	4084238	2.49E-07	3.92E-06	6.30E-07	4.47E-07	5.24E-06
585	258611.2	4084238	2.43E-07	3.83E-06	6.15E-07	4.37E-07	5.13E-06
586	258603.5	4084238	2.4E-07	3.77E-06	6.06E-07	4.31E-07	5.05E-06
587	258541.1	4084256	2.17E-07	3.42E-06	5.50E-07	3.91E-07	4.58E-06
588	258536.8	4084268	2.18E-07	3.43E-06	5.51E-07	3.92E-07	4.59E-06
589	258524	4084270	2.13E-07	3.36E-06	5.39E-07	3.83E-07	4.49E-06
590	258517.1	4084269	2.1E-07	3.31E-06	5.32E-07	3.78E-07	4.43E-06
591	258427.3	4084298	1.82E-07	2.86E-06	4.59E-07	3.27E-07	3.83E-06
592	258421.3	4084291	1.79E-07	2.82E-06	4.53E-07	3.22E-07	3.77E-06
593	258415.3	4084284	1.77E-07	2.78E-06	4.47E-07	3.17E-07	3.72E-06
594	258416.2	4084270	1.75E-07	2.76E-06	4.44E-07	3.15E-07	3.70E-06
595	258418.7	4084261	1.75E-07	2.76E-06	4.43E-07	3.15E-07	3.69E-06
596	258800.3	4084395	4.05E-07	6.37E-06	1.02E-06	7.27E-07	8.52E-06
597	258789.2	4084396	3.94E-07	6.21E-06	9.98E-07	7.09E-07	8.31E-06
598	258778.9	4084394	3.86E-07	6.07E-06	9.76E-07	6.93E-07	8.13E-06
599	258772.9	4084352	3.71E-07	5.85E-06	9.40E-07	6.68E-07	7.83E-06
600	258327.9	4084836	1.1E-07	1.73E-06	2.78E-07	1.98E-07	2.32E-06
601	258318.1	4084837	1.09E-07	1.71E-06	2.75E-07	1.95E-07	2.29E-06
602	258326.5	4084949	9.22E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
603	258327.8	4084955	9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
604	258329.2	4084959	9.07E-08	1.43E-06	2.30E-07	1.63E-07	1.91E-06
605	258328.3	4084967	8.94E-08	1.41E-06	2.26E-07	1.61E-07	1.88E-06
606	258330.1	4084975	8.85E-08	1.39E-06	2.24E-07	1.59E-07	1.86E-06
607	257934.2	4085112	5.41E-08	8.51E-07	1.37E-07	9.72E-08	1.14E-06
608	257924.7	4085110	5.39E-08	8.48E-07	1.36E-07	9.68E-08	1.13E-06
609	257916.3	4085110	5.35E-08	8.43E-07	1.35E-07	9.62E-08	1.13E-06
610	257910	4085112	5.32E-08	8.37E-07	1.35E-07	9.56E-08	1.12E-06
611	259321.5	4084054	3.48E-07	5.48E-06	8.81E-07	6.26E-07	7.34E-06
612	259326.7	4084068	3.53E-07	5.56E-06	8.93E-07	6.35E-07	7.44E-06
613	259333.9	4084081	3.56E-07	5.6E-06	9.00E-07	6.39E-07	7.50E-06
614	259337	4084094	3.61E-07	5.68E-06	9.13E-07	6.49E-07	7.60E-06
615	259341.6	4084110	3.67E-07	5.77E-06	9.28E-07	6.59E-07	7.73E-06
616	259347.3	4084130	3.75E-07	5.91E-06	9.50E-07	6.75E-07	7.91E-06
617	259350.9	4084143	3.82E-07	6.01E-06	9.66E-07	6.86E-07	8.05E-06
618	259352.4	4084152	3.88E-07	6.1E-06	9.80E-07	6.97E-07	8.17E-06
619	259357	4084175	4.03E-07	6.35E-06	1.02E-06	7.25E-07	8.50E-06
620	259357	4084193	4.2E-07	6.61E-06	1.06E-06	7.55E-07	8.85E-06
621	259358.6	4084209	4.36E-07	6.86E-06	1.10E-06	7.84E-07	9.19E-06
622	259359.6	4084221	4.49E-07	7.07E-06	1.14E-06	8.07E-07	9.46E-06
623	259362.7	4084239	4.69E-07	7.38E-06	1.19E-06	8.43E-07	9.88E-06
624	259376.6	4084249	4.71E-07	7.42E-06	1.19E-06	8.47E-07	9.93E-06
625	259404.4	4084254	4.46E-07	7.02E-06	1.13E-06	8.01E-07	9.39E-06
626	259440.4	4084254	4E-07	6.3E-06	1.01E-06	7.19E-07	8.43E-06
627	259473.9	4084252	3.59E-07	5.66E-06	9.09E-07	6.46E-07	7.57E-06
628	259493.9	4084250	3.37E-07	5.3E-06	8.52E-07	6.05E-07	7.10E-06
629	259528.4	4084247	3.02E-07	4.76E-06	7.65E-07	5.43E-07	6.37E-06
630	259543.4	4084246	2.89E-07	4.55E-06	7.30E-07	5.19E-07	6.08E-06
631	259579.4	4084242	2.59E-07	4.09E-06	6.56E-07	4.66E-07	5.47E-06
632	259595.9	4084239	2.48E-07	3.9E-06	6.26E-07	4.45E-07	5.22E-06
633	259595.9	4084221	2.48E-07	3.9E-06	6.27E-07	4.46E-07	5.22E-06
634	259596.9	4084206	2.47E-07	3.89E-06	6.25E-07	4.44E-07	5.21E-06
635	259595.3	4084188	2.48E-07	3.9E-06	6.26E-07	4.45E-07	5.22E-06
636	259595.3	4084169	2.46E-07	3.88E-06	6.23E-07	4.43E-07	5.19E-06
637	259559.3	4084204	2.74E-07	4.31E-06	6.92E-07	4.92E-07	5.77E-06

			5.52E-08	8.69E-07	1.40E-07	9.93E-08	1.16E-06
			5.43E-08	8.54E-07	1.37E-07	9.75E-08	1.14E-06
			5.29E-08	8.33E-07	1.34E-07	9.51E-08	1.12E-06
			5.72E-08	9.01E-07	1.45E-07	1.03E-07	1.21E-06
			5.79E-08	9.11E-07	1.46E-07	1.04E-07	1.22E-06
			5.70E-08	8.97E-07	1.44E-07	1.02E-07	1.20E-06
			5.55E-08	8.74E-07	1.40E-07	9.98E-08	1.17E-06
			5.44E-08	8.56E-07	1.38E-07	9.77E-08	1.15E-06
			5.36E-08	8.43E-07	1.35E-07	9.63E-08	1.13E-06
			5.46E-08	8.60E-07	1.38E-07	9.82E-08	1.15E-06
			5.58E-08	8.78E-07	1.41E-07	1.00E-07	1.18E-06
			5.87E-08	9.24E-07	1.48E-07	1.05E-07	1.24E-06
			5.73E-08	9.02E-07	1.45E-07	1.03E-07	1.21E-06
			5.63E-08	8.87E-07	1.42E-07	1.01E-07	1.19E-06
			5.50E-08	8.66E-07	1.39E-07	9.89E-08	1.16E-06
			5.95E-08	9.36E-07	1.50E-07	1.07E-07	1.25E-06
			5.86E-08	9.22E-07	1.48E-07	1.05E-07	1.23E-06
			5.75E-08	9.05E-07	1.45E-07	1.03E-07	1.21E-06
			5.64E-08	8.89E-07	1.43E-07	1.01E-07	1.19E-06
			6.09E-08	9.59E-07	1.54E-07	1.09E-07	1.28E-06
			5.94E-08	9.35E-07	1.50E-07	1.07E-07	1.25E-06
			5.82E-08	9.17E-07	1.47E-07	1.05E-07	1.23E-06
			5.72E-08	9.00E-07	1.45E-07	1.03E-07	1.20E-06
			6.21E-08	9.77E-07	1.57E-07	1.12E-07	1.31E-06
			6.08E-08	9.58E-07	1.54E-07	1.09E-07	1.28E-06
			5.95E-08	9.37E-07	1.51E-07	1.07E-07	1.25E-06
			5.82E-08	9.16E-07	1.47E-07	1.05E-07	1.23E-06
			6.98E-08	1.10E-06	1.77E-07	1.25E-07	1.47E-06
			6.84E-08	1.08E-06	1.73E-07	1.23E-07	1.44E-06
			6.69E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
			6.54E-08	1.03E-06	1.65E-07	1.18E-07	1.38E-06
			6.45E-08	1.02E-06	1.63E-07	1.16E-07	1.36E-06
			6.27E-08	9.88E-07	1.59E-07	1.13E-07	1.32E-06
			6.16E-08	9.70E-07	1.56E-07	1.11E-07	1.30E-06
			6.01E-08	9.46E-07	1.52E-07	1.08E-07	1.27E-06
			5.99E-08	9.43E-07	1.51E-07	1.08E-07	1.26E-06
			6.02E-08	9.48E-07	1.52E-07	1.08E-07	1.27E-06
			6.04E-08	9.52E-07	1.53E-07	1.09E-07	1.27E-06
			6.10E-08	9.60E-07	1.54E-07	1.10E-07	1.29E-06
			6.17E-08	9.71E-07	1.56E-07	1.11E-07	1.30E-06
			6.21E-08	9.78E-07	1.57E-07	1.12E-07	1.31E-06
			6.28E-08	9.89E-07	1.59E-07	1.13E-07	1.32E-06
			6.34E-08	9.99E-07	1.60E-07	1.14E-07	1.34E-06
			6.41E-08	1.01E-06	1.62E-07	1.15E-07	1.35E-06
			6.48E-08	1.02E-06	1.64E-07	1.17E-07	1.37E-06
			6.59E-08	1.04E-06	1.67E-07	1.18E-07	1.39E-06
			6.80E-08	1.07E-06	1.72E-07	1.22E-07	1.43E-06
			6.73E-08	1.06E-06	1.70E-07	1.21E-07	1.42E-06
			6.70E-08	1.05E-06	1.69E-07	1.20E-07	1.41E-06
			6.62E-08	1.04E-06	1.68E-07	1.19E-07	1.40E-06
			6.57E-08	1.03E-06	1.66E-07	1.18E-07	1.38E-06
			6.51E-08	1.02E-06	1.65E-07	1.17E-07	1.37E-06
			6.42E-08	1.01E-06	1.62E-07	1.15E-07	1.35E-06
			6.37E-08	1.00E-06	1.61E-07	1.14E-07	1.34E-06
			6.32E-08	9.95E-07	1.60E-07	1.14E-07	1.33E-06
			6.28E-08	9.89E-07	1.59E-07	1.13E-07	1.32E-06
			6.23E-08	9.81E-07	1.58E-07	1.12E-07	1.31E-06
			6.21E-08	9.77E-07	1.57E-07	1.12E-07	1.31E-06
			6.20E-08	9.76E-07	1.57E-07	1.11E-07	1.31E-06
			5.01E-08	7.88E-07	1.27E-07	9.00E-08	1.05E-06
			4.98E-08	7.84E-07	1.26E-07	8.95E-08	1.05E-06
			4.99E-08	7.86E-07	1.26E-07	8.97E-08	1.05E-06
			5.74E-08	9.04E-07	1.45E-07	1.03E-07	1.21E-06
			4.78E-08	7.52E-07	1.21E-07	8.59E-08	1.01E-06
			4.78E-08	7.52E-07	1.21E-07	8.59E-08	1.01E-06
			6.06E-08	9.54E-07	1.53E-07	1.09E-07	1.28E-06
			5.88E-08	9.26E-07	1.49E-07	1.06E-07	1.24E-06
			1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.56E-06
			1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
			1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.83E-06
			1.37E-07	2.15E-06	3.46E-07	2.46E-07	2.88E-06
			1.17E-07	1.85E-06	2.97E-07	2.11E-07	2.47E-06
			1.20E-07	1.90E-06	3.05E-07	2.17E-07	2.54E-06
			2.35E-07	3.69E-06	5.94E-07	4.22E-07	4.94E-06
			2.49E-07	3.92E-06	6.30E-07	4.47E-07	5.24E-06
			2.43E-07	3.83E-06	6.15E-07	4.37E-07	5.13E-06
			2.40E-07	3.77E-06	6.06E-07	4.31E-07	5.05E-06
			2.17E-07	3.42E-06	5.50E-07	3.91E-07	4.58E-06
			2.18E-07	3.43E-06	5.51E-07	3.92E-07	4.59E-06
			2.13E-07	3.36E-06	5.39E-07	3.83E-07	4.49E-06
			2.10E-07	3.31E-06	5.32E-07	3.78E-07	4.43E-06
			1.82E-07	2.86E-06	4.59E-07	3.27E-07	3.83E-06
			1.79E-07	2.82E-06	4.53E-07	3.22E-07	3.77E-06
			1.77E-07	2.78E-06	4.47E-07	3.17E-07	3.72E-06
			1.75E-07	2.76E-06	4.44E-07	3.15E-07	3.70E-06
			1.75E-07	2.76E-06	4.43E-07	3.15E-07	3.69E-06
			4.05E-07	6.37E-06	1.02E-06	7.27E-07	8.52E-06
			3.94E-07	6.21E-06	9.98E-07	7.09E-07	8.31E-06
			3.86E-07	6.07E-06	9.76E-07	6.93E-07	8.13E-06
			3.71E-07	5.85E-06	9.40E-07	6.68E-07	7.83E-06
			1.10E-07	1.73E-06	2.78E-07	1.98E-07	2.32E-06
			1.09E-07	1.71E-06	2.75E-07	1.95E-07	2.29E-06
			9.22E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
			9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
			9.07E-08	1.43E-06	2.30E-07	1.63E-07	1.91E-06
			8.94E-08	1.41E-06	2.26E-07	1.61E-07	1.88E-06
			8.85E-08	1.39E-06	2.24E-07	1.59E-07	1.86E-06
			5.41E-08	8.51E-07	1.37E-07	9.72E-08	1.14E-06
			5.39E-08	8.48E-07	1.36E-07	9.68E-08	1.13E-06
			5.35E-08	8.43E-07	1.35E-07	9.62E-08	1.13E-06
			5.32E-08	8.37E-07	1.35E-07	9.56E-08	1.12E-06
			3.48E-07	5.48E-06	8.81E-07	6.26E-07	7.34E-06
			3.53E-07	5.56E-06	8.93E-07	6.35E-07	7.44E-06
			3.56E-07	5.60E-06	9.00E-07	6.39E-07	7.50E-06
			3.61E-07	5.68E-06	9.13E-07	6.49E-07	7.60E-06
			3.67E-07	5.77E-06	9.28E-07	6.59E-07	7.73E-06
			3.75E-07	5.91E-06	9.50E-07	6.75E-07	7.91E-06
			3.82E-07	6.01E-06	9.66E-07	6.86E-07	8.05E-06
			3.88E-07	6.10E-06	9.80E-07	6.97E-07	8.17E-06
			4.03E-07	6.35E-06	1.02E-06	7.25E-07	8.50E-06
			4.20E-07	6.61E-06	1.06E-06	7.55E-07	8.85E-06
			4.36E-07	6.86E-06	1.10E-06	7.84E-07	9.19E-06
			4.49E-07	7.07E-06	1.14E-06	8.07E-07	9.46E-06
			4.69E-07	7.38E-06	1.19E-06	8.43E-07	9.88E-06
			4.71E-07	7.42E-06	1.19E-06	8.47E-07	9.93E-06
			4.46E-07	7.02E-06	1.13E-06	8.01E-07	9.39E-06
			4.00E-07	6.30E-06	1.01E-06	7.19E-07	8.43E-06
			3.59E-07	5.66E-06	9.09E-07	6.46E-07	7.57E-06
			3.37E-07	5.30E-06	8.52E-07	6.05E-07	7.10E-06
			3.02E-07	4.76E-06	7.65E-07	5.43E-07	6.37E-06
			2.89E-07	4.55E-06	7.30E-07	5.19E-07	6.08E-06
			2.59E-07	4.09E-06	6.56E-07	4.66E-07	5.47E-06
			2.48E-07	3.90E-06	6.26E-07	4.45E-07	5.22E-06
			2.48E-07	3.90E-06	6.27E-07	4.46E-07	5.22E-06
			2.47E-07	3.89E-06	6.25E-07	4.44E-07	5.21E-06
			2.48E-07	3.90E-06	6.26E-07	4.45E-07	5.22E-06
			2.46E-07	3.88E-06	6.23E-07	4.43E-07	5.19E-06
			2.74E-07	4.31E-06	6.92E-07	4.92E-07	5.77E-06

			8.40E-09	1.52E-07	2.29E-08	1.61E-08	1.99E-07
			8.25E-09	1.49E-07	2.25E-08	1.58E-08	1.96E-07
			8.05E-09	1.46E-07	2.20E-08	1.54E-08	1.91E-07
			8.70E-09	1.57E-07	2.38E-08	1.67E-08	2.07E-07
			8.80E-09	1.59E-07	2.40E-08	1.68E-08	2.09E-07
			8.66E-09	1.57E-07	2.36E-08	1.66E-08	2.06E-07
			8.44E-09	1.53E-07	2.31E-08	1.62E-08	2.00E-07
			8.27E-09	1.50E-07	2.26E-08	1.58E-08	1.96E-07
			8.14E-09	1.47E-07	2.22E-08	1.56E-08	1.93E-07
			8.31E-09	1.50E-07	2.27E-08	1.59E-08	1.97E-07
			8.48E-09	1.53E-07	2.32E-08	1.62E-08	2.01E-07
			8.92E-09	1.61E-07	2.44E-08	1.71E-08	2.12E-07
			8.71E-09	1.58E-07	2.38E-08	1.67E-08	2.07E-07
			8.57E-09	1.55E-07	2.34E-08	1.64E-08	2.03E-07
			8.37E-09	1.51E-07	2.28E-08	1.60E-08	1.99E-07
			9.04E-09	1.64E-07	2.47E-08	1.73E-08	2.15E-07
			8.91E-09	1.61E-07	2.43E-08	1.70E-08	2.11E-07
			8.74E-09	1.58E-07	2.39E-08	1.67E-08	2.07E-07
			8.58E-09	1.55E-07	2.34E-08	1.64E-08	2.04E-07
			9.26E-09	1.67E-07	2.53E-08	1.77E-08	2.20E-07
			9.03E-09	1.63E-07	2.47E-08	1.73E-08	2.14E-07
			8.85E-09	1.60E-07	2.42E-08	1.69E-08	2.10E-07
			8.69E-09	1.57E-07	2.37E-08	1.66E-08	2.06E-07
			9.44E-09	1.71E-07	2.58E-08	1.81E-08	2.24E-07
			9.25E-09	1.67E-07	2.53E-08	1.77E-08	2.20E-07
			9.05E-09	1.64E-07	2.47E-08	1.73E-08	2.15E-07

638	259540.8	4084206	2.88E-07	4.54E-06	7.29E-07	5.18E-07	6.07E-06
639	259531	4084206	2.96E-07	4.66E-06	7.49E-07	5.32E-07	6.24E-06
640	259512.5	4084207	3.12E-07	4.91E-06	7.88E-07	5.60E-07	6.57E-06
641	259497	4084208	3.25E-07	5.12E-06	8.23E-07	5.85E-07	6.85E-06
642	259485.2	4084208	3.36E-07	5.29E-06	8.50E-07	6.04E-07	7.08E-06
643	259464.6	4084208	3.55E-07	5.59E-06	8.98E-07	6.38E-07	7.48E-06
644	259454.3	4084209	3.65E-07	5.74E-06	9.22E-07	6.55E-07	7.68E-06
645	259433.2	4084209	3.84E-07	6.05E-06	9.71E-07	6.90E-07	8.09E-06
646	259411.1	4084211	4.04E-07	6.36E-06	1.02E-06	7.27E-07	8.52E-06
647	259397.7	4084210	4.14E-07	6.51E-06	1.05E-06	7.43E-07	8.71E-06
648	259395.6	4084192	3.98E-07	6.27E-06	1.01E-06	7.16E-07	8.39E-06
649	259410.6	4084190	3.87E-07	6.1E-06	9.80E-07	6.96E-07	8.16E-06
650	259424.5	4084190	3.78E-07	5.95E-06	9.55E-07	6.79E-07	7.96E-06
651	259432.7	4084191	3.72E-07	5.85E-06	9.41E-07	6.68E-07	7.84E-06
652	259451.2	4084190	3.57E-07	5.62E-06	9.03E-07	6.41E-07	7.52E-06
653	259478	4084188	3.34E-07	5.27E-06	8.46E-07	6.01E-07	7.05E-06
654	259494.5	4084188	3.21E-07	5.06E-06	8.13E-07	5.77E-07	6.77E-06
655	259508.9	4084187	3.1E-07	4.88E-06	7.83E-07	5.57E-07	6.52E-06
656	259520.2	4084187	3.01E-07	4.74E-06	7.61E-07	5.41E-07	6.34E-06
657	259536.1	4084185	2.88E-07	4.54E-06	7.29E-07	5.18E-07	6.08E-06
658	259548.5	4084184	2.79E-07	4.39E-06	7.06E-07	5.02E-07	5.88E-06
659	259560.9	4084184	2.7E-07	4.26E-06	6.84E-07	4.86E-07	5.70E-06
660	259520.7	4084143	2.88E-07	4.53E-06	7.28E-07	5.18E-07	6.07E-06
661	259504.8	4084143	2.98E-07	4.68E-06	7.53E-07	5.35E-07	6.27E-06
662	259484.2	4084142	3.1E-07	4.88E-06	7.84E-07	5.57E-07	6.53E-06
663	259471.3	4084144	3.19E-07	5.02E-06	8.06E-07	5.73E-07	6.71E-06
664	259456.4	4084145	3.28E-07	5.16E-06	8.29E-07	5.89E-07	6.90E-06
665	259438.4	4084146	3.39E-07	5.33E-06	8.57E-07	6.09E-07	7.14E-06
666	259420.3	4084147	3.49E-07	5.5E-06	8.84E-07	6.28E-07	7.36E-06
667	259405.4	4084148	3.58E-07	5.63E-06	9.04E-07	6.43E-07	7.53E-06
668	259390.5	4084148	3.65E-07	5.75E-06	9.23E-07	6.56E-07	7.69E-06
669	259385.3	4084126	3.53E-07	5.56E-06	8.93E-07	6.35E-07	7.44E-06
670	259401.8	4084126	3.45E-07	5.43E-06	8.73E-07	6.20E-07	7.27E-06
671	259412.1	4084125	3.39E-07	5.34E-06	8.58E-07	6.10E-07	7.15E-06
672	259425.5	4084124	3.32E-07	5.23E-06	8.40E-07	5.97E-07	7.00E-06
673	259445	4084123	3.22E-07	5.07E-06	8.14E-07	5.78E-07	6.78E-06
674	259463.1	4084121	3.12E-07	4.91E-06	7.88E-07	5.60E-07	6.57E-06
675	259474.9	4084121	3.06E-07	4.81E-06	7.73E-07	5.49E-07	6.44E-06
676	259485.7	4084121	3E-07	4.72E-06	7.58E-07	5.38E-07	6.31E-06
677	259489.8	4084120	2.97E-07	4.67E-06	7.51E-07	5.34E-07	6.26E-06
678	259504.2	4084120	2.89E-07	4.55E-06	7.31E-07	5.20E-07	6.09E-06
679	259520.7	4084119	2.8E-07	4.41E-06	7.08E-07	5.03E-07	5.90E-06
680	259378.1	4084082	3.31E-07	5.22E-06	8.38E-07	5.96E-07	6.98E-06
681	259392	4084082	3.24E-07	5.11E-06	8.20E-07	5.83E-07	6.83E-06
682	259400.3	4084081	3.2E-07	5.04E-06	8.09E-07	5.75E-07	6.74E-06
683	259418.3	4084081	3.12E-07	4.91E-06	7.88E-07	5.60E-07	6.57E-06
684	259440.9	4084080	3.01E-07	4.74E-06	7.62E-07	5.41E-07	6.34E-06
685	259452.8	4084078	2.95E-07	4.65E-06	7.47E-07	5.31E-07	6.22E-06
686	259467.2	4084077	2.89E-07	4.54E-06	7.30E-07	5.19E-07	6.08E-06
687	259487.3	4084076	2.79E-07	4.4E-06	7.06E-07	5.02E-07	5.88E-06
688	259504.8	4084075	2.71E-07	4.27E-06	6.86E-07	4.88E-07	5.72E-06
689	259524.3	4084075	2.63E-07	4.14E-06	6.64E-07	4.72E-07	5.53E-06
690	259511.4	4084044	2.57E-07	4.05E-06	6.50E-07	4.62E-07	5.42E-06
691	259492.9	4084045	2.64E-07	4.16E-06	6.68E-07	4.75E-07	5.57E-06
692	259469.8	4084046	2.74E-07	4.31E-06	6.92E-07	4.92E-07	5.77E-06
693	259448.7	4084047	2.82E-07	4.45E-06	7.14E-07	5.08E-07	5.95E-06
694	259421.4	4084048	2.94E-07	4.63E-06	7.43E-07	5.28E-07	6.19E-06
695	259397.2	4084050	3.06E-07	4.81E-06	7.73E-07	5.49E-07	6.44E-06
696	259378.1	4084052	3.15E-07	4.97E-06	7.98E-07	5.67E-07	6.65E-06
697	259363.7	4084052	3.23E-07	5.08E-06	8.17E-07	5.80E-07	6.80E-06
698	259464.1	4084189	3.46E-07	5.45E-06	8.76E-07	6.23E-07	7.30E-06
699	259512.9	4084004	2.42E-07	3.81E-06	6.12E-07	4.35E-07	5.10E-06
700	259493.7	4084003	2.48E-07	3.9E-06	6.27E-07	4.46E-07	5.22E-06
701	259467.3	4084004	2.57E-07	4.05E-06	6.51E-07	4.62E-07	5.42E-06
702	259471.6	4083989	2.5E-07	3.93E-06	6.32E-07	4.49E-07	5.26E-06
703	259481.6	4083973	2.4E-07	3.78E-06	6.08E-07	4.32E-07	5.06E-06
704	259494.4	4083960	2.31E-07	3.64E-06	5.85E-07	4.16E-07	4.88E-06
705	259510.1	4083959	2.27E-07	3.57E-06	5.74E-07	4.08E-07	4.78E-06
706	259507.2	4083979	2.35E-07	3.69E-06	5.94E-07	4.22E-07	4.95E-06
707	259493.7	4083982	2.4E-07	3.78E-06	6.07E-07	4.31E-07	5.05E-06
708	259560	4084141	2.63E-07	4.15E-06	6.66E-07	4.74E-07	5.55E-06
709	259557.1	4084127	2.62E-07	4.13E-06	6.63E-07	4.71E-07	5.52E-06
710	259558.5	4084117	2.59E-07	4.08E-06	6.55E-07	4.65E-07	5.45E-06
711	259558.5	4084103	2.55E-07	4.02E-06	6.46E-07	4.59E-07	5.38E-06
712	259555.7	4084095	2.55E-07	4.01E-06	6.44E-07	4.58E-07	5.36E-06
713	259555.7	4084086	2.52E-07	3.97E-06	6.38E-07	4.53E-07	5.31E-06
714	259557.1	4084074	2.48E-07	3.9E-06	6.27E-07	4.46E-07	5.22E-06
715	259555.7	4084062	2.45E-07	3.86E-06	6.20E-07	4.41E-07	5.17E-06
716	259553.5	4084046	2.41E-07	3.8E-06	6.10E-07	4.34E-07	5.08E-06
717	259553.5	4084039	2.39E-07	3.77E-06	6.05E-07	4.30E-07	5.04E-06
718	259553.5	4084029	2.36E-07	3.72E-06	5.98E-07	4.25E-07	4.98E-06
719	259554.3	4084017	2.32E-07	3.66E-06	5.88E-07	4.18E-07	4.90E-06
720	259555.7	4084005	2.28E-07	3.59E-06	5.77E-07	4.10E-07	4.81E-06
721	259556.4	4083993	2.24E-07	3.53E-06	5.68E-07	4.03E-07	4.73E-06
722	259554.3	4083981	2.21E-07	3.49E-06	5.60E-07	3.98E-07	4.67E-06
723	259553.5	4083964	2.16E-07	3.41E-06	5.47E-07	3.89E-07	4.56E-06
724	259553.5	4083946	2.11E-07	3.32E-06	5.34E-07	3.79E-07	4.45E-06
725	259552.8	4083935	2.08E-07	3.27E-06	5.26E-07	3.73E-07	4.38E-06
726	259550.7	4083924	2.05E-07	3.23E-06	5.19E-07	3.69E-07	4.32E-06
727	259551.4	4083914	2.02E-07	3.18E-06	5.10E-07	3.63E-07	4.25E-06
728	259587	4084136	2.47E-07	3.89E-06	6.25E-07	4.44E-07	5.21E-06
729	259587	4084123	2.45E-07	3.86E-06	6.19E-07	4.40E-07	5.16E-06
730	259584.9	4084113	2.44E-07	3.84E-06	6.18E-07	4.39E-07	5.14E-06
731	259586.3	4084098	2.41E-07	3.79E-06	6.09E-07	4.32E-07	5.07E-06
732	259585.6	4084087	2.38E-07	3.76E-06	6.03E-07	4.29E-07	5.03E-06
733	259585.6	4084073	2.35E-07	3.7E-06	5.95E-07	4.23E-07	4.96E-06
734	259585.6	4084059	2.32E-07	3.65E-06	5.87E-07	4.17E-07	4.89E-06
735	259581.3	4084041	2.29E-07	3.61E-06	5.80E-07	4.12E-07	4.83E-06
736	259581.3	4084029	2.26E-07	3.56E-06	5.72E-07	4.06E-07	4.76E-06
737	259580.6	4084014	2.23E-07	3.5E-06	5.63E-07	4.00E-07	4.69E-06
738	259581.3	4083996	2.17E-07	3.42E-06	5.50E-07	3.91E-07	4.58E-06
739	259581.3	4083975	2.12E-07	3.33E-06	5.35E-07	3.80E-07	4.46E-06
740	259580.6	4083967	2.1E-07	3.3E-06	5.30E-07	3.77E-07	4.42E-06
741	259580.6	4083955	2.07E-07	3.25E-06	5.23E-07	3.71E-07	4.35E-06
742	259577.8	4083937	2.02E-07	3.18E-06	5.12E-07	3.64E-07	4.26E-06
743	259580.6	4083920	1.97E-07	3.1E-06	4.98E-07	3.54E-07	4.15E-06
744	259576.3	4083904	1.93E-07	3.05E-06	4.89E-07	3.48E-07	4.08E-06
745	259408.9	4084009	2.81E-07	4.42E-06	7.10E-07	5.04E-07	5.91E-06
746	259414.6	4083997	2.72E-07	4.29E-06	6.89E-07	4.89E-07	5.74E-06
747	259421.7	4083986	2.65E-07	4.17E-06	6.69E-07	4.76E-07	5.58E-06
748	259426.7	4083975	2.58E-07	4.06E-06	6.53E-07	4.64E-07	5.44E-06
749	259433.9	4083958	2.48E-07	3.9E-06	6.27E-07	4.46E-07	5.23E-06
750	259441	4083951	2.43E-07	3.82E-06	6.14E-07	4.36E-07	5.12E-06
751	259447.4	4083942	2.37E-07	3.73E-06	5.99E-07	4.26E-07	4.99E-06
752	259453.1	4083935	2.32E-07	3.66E-06	5.88E-07	4.18E-07	4.90E-06
753	259462.4	4083925	2.26E-07	3.56E-06	5.71E-07	4.06E-07	4.76E-06
754	259470.9	4083919	2.22E-07	3.49E-06	5.61E-07	3.98E-07	4.67E-06
755	259483	4083914	2.17E-07	3.42E-06	5.49E-07	3.90E-07	4.57E-06
756	259498	4083915	2.14E-07	3.37E-06	5.41E-07	3.85E-07	4.51E-06
757	259509.4	4083915	2.11E-07	3.33E-06	5.35E-07	3.80E-07	4.45E-06
758	259522.2	4083915	2.09E-07	3.28E-06	5.27E-07	3.75E-07	4.39E-06
759	259535	4083915	2.06E-07	3.24E-06	5.21E-07	3.70E-07	4.34E-06
760	259374	4084006	2.93E-07	4.61E-06	7.41E-07	5.27E-07	6.17E-06
761	259377.6	4083991	2.83E-07	4.46E-06	7.17E-07	5.09E-07	5.97E-06
762	259381.9	4083982	2.77E-07	4.36E-06	7.01E-07	4.98E-07	5.84E-06
763	259388.3	4083975	2.71E-07	4.26E-06	6.85E-07	4.87E-07	5.71E-06
764	259394	4083962	2.62E-07	4.12E-06	6.62E-07	4.70E-07	5.52E-06
765	259401.8	4083952	2.54E-07	4E-06	6.43E-07	4.57E-07	5.36E-06

2.88E-07	4.54E-06	7.29E-07	5.18E-07	6.07E-06
2.96E-07	4.66E-06	7.49E-07	5.32E-07	6.24E-06
3.12E-07	4.91E-06	7.88E-07	5.60E-07	6.57E-06
3.25E-07	5.12E-06	8.23E-07	5.85E-07	6.85E-06
3.36E-07	5.29E-06	8.50E-07	6.04E-07	7.08E-06
3.55E-07	5.59E-06	8.98E-07	6.38E-07	7.48E-06
3.65E-07	5.74E-06	9.22E-07	6.55E-07	7.68E-06
3.84E-07	6.05E-06	9.71E-07	6.90E-07	8.09E-06
4.04E-07	6.36E-06	1.02E-06	7.27E-07	8.52E-06
4.14E-07	6.51E-06	1.05E-06	7.43E-07	8.71E-06
3.98E-07	6.27E-06	1.01E-06	7.16E-07	8.39E-06
3.87E-07	6.10E-06	9.80E-07	6.96E-07	8.16E-06
3.78E-07	5.95E-06	9.55E-07	6.79E-07	7.96E-06
3.72E-07	5.85E-06	9.41E-07	6.68E-07	7.84E-06
3.57E-07	5.62E-06	9.03E-07	6.41E-07	7.52E-06
3.34E-07	5.27E-06	8.46E-07	6.01E-07	7.05E-06
3.21E-07	5.06E-06	8.13E-07	5.77E-07	6.77E-06
3.10E-07	4.88E-06	7.83E-07	5.57E-07	6.52E-06
3.01E-07	4.74E-06	7.61E-07	5.41E-07	6.34E-06
2.88E-07	4.54E-06	7.29E-07	5.18E-07	6.08E-06
2.79E-07	4.39E-06	7.06E-07	5.02E-07	5.88E-06
2.70E-07	4.26E-06	6.84E-07	4.86E-07	5.70E-06
2.88E-07	4.53E-06	7.28E-07	5.18E-07	6.07E-06
2.98E-07	4.68E-06	7.53E-07	5.35E-07	6.27E-06
3.10E-07	4.88E-06	7.84E-07	5.57E-07	6.53E-06
3.19E-07	5.02E-06	8.06E-07	5.73E-07	6.71E-06
3.28E-07	5.16E-06	8.29E-07	5.89E-07	6.90E-06
3.39E-07	5.33E-06	8.57E-07	6.09E-07	7.14E-06
3.49E-07	5.50E-06	8.84E-07	6.28E-07	7.36E-06
3.58E-07	5.63E-06	9.04E-07	6.43E-07	7.53E-06
3.65E-07	5.75E-06	9.23E-07	6.56E-07	7.69E-06
3.53E-07	5.56E-06	8.93E-07	6.35E-07	7.44E-06
3.45E-07	5.43E-06	8.73E-07	6.20E-07	7.27E-06
3.39E-07	5.34E-06	8.58E-07	6.10E-07	7.15E-06
3.32E-07	5.23E-06	8.40E-07	5.97E-07	7.00E-06
3.22E-07	5.07E-06	8.14E-07	5.78E-07	6.78E-06
3.12E-07	4.91E-06	7.88E-07	5.60E-07	6.57E-06
3.06E-07	4.81E-06	7.73E-07	5.49E-07	6.44E-06
3.00E-07	4.72E-06	7.58E-07	5.38E-07	6.31E-06
2.97E-07	4.67E-06	7.51E-07	5.34E-07	6.26E-06
2.89E-07	4.55E-06	7.31E-07	5.20E-07	6.09E-06
2.80E-07	4.41E-06	7.08E-07	5.03E-07	5.90E-06
3.31E-07	5.22E-06	8.38E-07	5.96E-07	6.98E-06
3.24E-07	5.11E-06	8.20E-07	5.83E-07	6.83E-06
3.20E-07	5.04E-06	8.09E-07	5.75E-07	6.74E-06
3.12E-07	4.91E-06	7.88E-07	5.60E-07	6.57E-06
3.01E-07	4.74E-06	7.62E-07	5.41E-07	6.34E-06
2.95E-07	4.65E-06	7.47E-07	5.31E-07	6.22E-06
2.89E-07	4.54E-06	7.30E-07	5.19E-07	6.08E-06
2.79E-07	4.40E-06	7.06E-07	5.02E-07	5.88E-06
2.71E-07	4.27E-06	6.86E-07	4.88E-07	5.72E-06
2.63E-07	4.14E-06	6.64E-07	4.72E-07	5.53E-06
2.57E-07	4.05E-06	6.50E-07	4.62E-07	5.42E-06
2.64E-07	4.16E-06	6.68E-07	4.75E-07	5.57E-06
2.74E-07	4.31E-06	6.92E-07	4.92E-07	5.77E-06
2.82E-07	4.45E-06	7.14E-07	5.08E-07	5.95E-06
2.94E-07	4.63E-06	7.43E-07	5.28E-07	6.19E-06
3.06E-07	4.81E-06	7.73E-07	5.49E-07	6.44E-06
3.15E-07	4.97E-06	7.98E-07	5.67E-07	6.65E-06
3.23E-07	5.08E-06	8.17E-07	5.80E-07	6.80E-06
3.46E-07	5.45E-06	8.76E-07	6.23E-07	7.30E-06
2.42E-07	3.81E-06	6.12E-07	4.35E-07	5.10E-06
2.48E-07	3.90E-06	6.27E-07	4.46E-07	5.22E-06
2.57E-07	4.05E-06	6.51E-07	4.62E-07	5.42E-06
2.50E-07	3.93E-06	6.32E-07	4.49E-07	5.26E-06
2.40E-07	3.78E-06	6.08E-07	4.32E-07	5.06E-06
2.31E-07	3.64E-06	5.85E-07	4.16E-07	4.88E-06
2.27E-07	3.57E-06	5.74E-07	4.08E-07	4.78E-06
2.35E-07	3.69E-06	5.94E-07	4.22E-07	4.95E-06
2.40E-07	3.78E-06	6.07E-07	4.31E-07	5.05E-06
2.63E-07	4.15E-06	6.66E-07	4.74E-07	5.55E-06
2.62E-07	4.13E-06	6.63E-07	4.71E-07	5.52E-06
2.59E-07	4.08E-06	6.55E-07	4.65E-07	5.45E-06
2.55E-07	4.02E-06	6.46E-07	4.59E-07	5.38E-06
2.55E-07	4.01E-06	6.44E-07	4.58E-07	5.36E-06
2.52E-07	3.97E-06	6.38E-07	4.53E-07	5.31E-06
2.48E-07	3.90E-06	6.27E-07	4.46E-07	5.22E-06
2.45E-07	3.86E-06	6.20E-07	4.41E-07	5.17E-06
2.41E-07	3.80E-06	6.10E-07	4.34E-07	5.08E-06
2.39E-07	3.77E-06	6.05E-07	4.30E-07	5.04E-06
2.36E-07	3.72E-06	5.98E-07	4.25E-07	4.98E-06
2.32E-07	3.66E-06	5.88E-07	4.18E-07	4.90E-06
2.28E-07	3.59E-06	5.77E-07	4.10E-07	4.81E-06
2.24E-07	3.53E-06	5.68E-07	4.03E-07	4.73E-06
2.21E-07	3.49E-06	5.60E-07	3.98E-07	4.67E-06
2.16E-07	3.41E-06	5.47E-07	3.89E-07	4.56E-06
2.11E-07	3.32E-06	5.34E-07	3.79E-07	4.45E-06
2.08E-07	3.27E-06	5.26E-07	3.73E-07	4.38E-06
2.05E-07	3.23E-06	5.19E-07	3.69E-07	4.32E-06
2.02E-07	3.18E-06	5.10E-07	3.63E-07	4.25E-06
2.47E-07	3.89E-06	6.25E-07	4.44E-07	5.21E-06
2.45E-07	3.86E-06	6.19E-07	4.40E-07	5.16E-06
2.44E-07	3.84E-06	6.18E-07	4.39E-07	5.14E-06
2.41E-07	3.79E-06	6.09E-07	4.32E-07	5.07E-06
2.38E-07	3.76E-06	6.03E-07	4.29E-07	5.03E-06
2.35E-07	3.70E-06	5.95E-07	4.23E-07	4.96E-06
2.32E-07	3.65E-06	5.87E-07	4.17E-07	4.89E-06
2.29E-07	3.61E-06	5.80E-07	4.12E-07	4.83E-06
2.26E-07	3.56E-06	5.72E-07	4.06E-07	4.76E-06
2.23E-07	3.50E-06	5.63E-07	4.00E-07	4.69E-06
2.17E-07	3.42E-06	5.50E-07	3.91E-07	4.58E-06
2.12E-07	3.33E-06	5.35E-07	3.80E-07	4.46E-06
2.10E-07	3.30E-06	5.30E-07	3.77E-07	4.42E-06
2.07E-07	3.25E-06	5.23E-07	3.71E-07	4.35E-06
2.02E-07	3.18E-06	5.12E-07	3.64E-07	4.26E-06
1.97E-07	3.10E-06	4.98E-07	3.54E-07	4.15E-06
1.93E-07	3.05E-06	4.89E-07	3.48E-07	4.08E-06
2.81E-07	4.42E-06	7.10E-07	5.04E-07	5.91E-06
2.72E-07	4.29E-06	6.89E-07	4.89E-07	5.74E-06
2.65E-07	4.17E-06	6.69E-07	4.76E-07	5.58E-06
2.58E-07	4.06E-06	6.53E-07	4.64E-07	5.44E-06
2.48E-07	3.90E-06	6.27E-07	4.46E-07	5.23E-06
2.43E-07	3.82E-06	6.14E-07	4.36E-07	5.12E-06
2.37E-07	3.73E-06	5.99E-07	4.26E-07	4.99E-06
2.32E-07	3.66E-06	5.88E-07	4.18E-07	4.90E-06
2.26E-07	3.56E-06	5.71E-07	4.06E-07	4.76E-06
2.22E-07	3.49E-06	5.61E-07	3.98E-07	4.67E-06
2.17E-07	3.42E-06	5.49E-07	3.90E-07	4.57E-06
2.14E-07	3.37E-06	5.41E-07	3.85E-07	4.51E-06
2.11E-07	3.33E-06	5.35E-07	3.80E-07	4.45E-06
2.09E-07	3.28E-06	5.27E-07	3.75E-07	4.39E-06
2.06E-07	3.24E-06	5.21E-07	3.70E-07	4.34E-06
2.93E-07	4.61E-06	7.41E-07	5.27E-07	6.17E-06
2.83E-07	4.46E-06	7.17E-07	5.09E-07	5.97E-06
2.77E-07	4.36E-06	7.01E-07	4.98E-07	5.84E-06
2.71E-07	4.26E-06	6.85E-07	4.87E-07	5.71E-06
2.62E-07	4.12E-06	6.62E-07	4.70E-07	5.52E-06
2.54E-07	4.00E-06	6.43E-07	4.57E-07	5.36E-06

4.38E-08	7.92E-07	1.20E-07	8.38E-08	1.04E-06
4.50E-08	8.14E-07	1.23E-07	8.62E-08	1.07E-06
4.74E-08	8.57E-07	1.29E-07	9.07E-08	1.12E-06
4.95E-08	8.94E-07	1.35E-07	9.47E-08	1.17E-06
5.11E-08	9.24E-07	1.40E-07	9.78E-08	1.21E-06
5.40E-08	9.76E-07	1.47E-07	1.03E-07	1.28E-06
5.54E-08	1.00E-06	1.51E-07	1.06E-07	1.32E-06
5.84E-08	1.06E-06	1.59E-07	1.12E-07	1.39E-06
6.15E-08	1.11E-06	1.68E-07	1.18E-07	1.46E-06
6.29E-08	1.14E-06	1.72E-07	1.20E-07	1.49E-06
6.06E-08	1.10E-06	1.65E-07	1.16E-07	1.44E-06
5.89E-08	1.07E-06	1.61E-07	1.13E-07	1.40E-06
5.74E-08	1.04E-06	1.57E-07	1.10E-07	1.36E-06
5.65E-08	1.02E-06	1.54E-07	1.08E-07	1.34E-06
5.43E-08	9.81E-07	1.48E-07	1.04E-07	1.29E-06
5.09E-08	9.20E-07	1.39E-07	9.73E-08	1.21E-06
4.88E-08	8.83E-07	1.33E-07	9.35E-08	1.16E-06
4.71E-08	8.52E-07	1.29E-07	9.01E-08	1.12E-06
4.57E-08	8.27E-07	1.25E-07	8.76E-08	1.09E-06
4.38E-08	7.93E-07	1.20E-07	8.39E-08	1.04E-06
4.24E-08	7.68E-07	1.16E-07	8.12E-08	1.01E-06
4.11E-08	7.43E-07	1.12E-07	7.87E-08	9.75E-07
4.38E-08	7.92E-07	1.20E-07	8.38E-08	1.04E-06
4.52E-08	8.18E-07	1.24E-07	8.66E-08	1.07E-06
4.71E-08	8.52E-07	1.29E-07	9.02E-08	1.12E-06
4.84E-08	8.76E-07	1.32E-07	9.27E-08	1.15E-06
4.98E-08	9.01E-07	1.36E-07	9.54E-08	1.18E-06
5.15E-08	9.32E-07	1.41E-07	9.86E-08	1.22E-06
5.31E-08	9.61E-07	1.45E-07	1.02E-07	1.26E-06
5.44E-08	9.83E-07	1.48E-07	1.04E-07	1.29E-06
5.55E-08	1.00E-06	1.52E-07	1.06E-07	1.32E-06
5.37E-08	9.71E-07	1.47E-07	1.03E-07	1.27E-06
5.25E-08	9.49E-07	1.43E-07	1.00E-07	1.24E-06
5.16E-08	9.33E-07	1.41E-07	9.88E-08	1.22E-06
5.05E-08	9.13E-07	1.38E-07	9.67E-08	1.20E-06
4.89E-08	8.85E-07	1.34E-07	9.37E-08	1.16E-06
4.74E-08

| | | |

894	259881.2	4084071	1.3E-07	2.05E-06	3.30E-07	2.34E-07	2.75E-06
895	259879.8	4084034	1.32E-07	2.07E-06	3.33E-07	2.36E-07	2.77E-06
896	259869.8	4084036	1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.82E-06
897	259859.2	4084036	1.37E-07	2.15E-06	3.46E-07	2.46E-07	2.88E-06
898	259849.2	4084036	1.39E-07	2.2E-06	3.53E-07	2.51E-07	2.94E-06
899	259834.2	4084035	1.44E-07	2.26E-06	3.63E-07	2.58E-07	3.02E-06
900	259825	4084035	1.46E-07	2.3E-06	3.70E-07	2.63E-07	3.08E-06
901	259815.7	4084036	1.49E-07	2.34E-06	3.76E-07	2.67E-07	3.13E-06
902	259805.7	4084036	1.52E-07	2.39E-06	3.84E-07	2.73E-07	3.19E-06
903	259819.3	4084113	1.47E-07	2.31E-06	3.71E-07	2.64E-07	3.09E-06
904	259835.6	4084113	1.42E-07	2.23E-06	3.59E-07	2.55E-07	2.99E-06
905	259863.4	4084110	1.34E-07	2.11E-06	3.38E-07	2.40E-07	2.82E-06
906	259869.8	4084112	1.32E-07	2.08E-06	3.33E-07	2.37E-07	2.78E-06
907	259885.5	4084112	1.28E-07	2.01E-06	3.23E-07	2.29E-07	2.69E-06
908	259907.6	4084112	1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.57E-06
909	259924	4084109	1.18E-07	1.86E-06	2.98E-07	2.12E-07	2.48E-06
910	259931.8	4084106	1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06
911	259926.8	4084091	1.18E-07	1.86E-06	2.99E-07	2.12E-07	2.49E-06
912	259925.4	4084077	1.19E-07	1.88E-06	3.01E-07	2.14E-07	2.51E-06
913	259925.4	4084059	1.2E-07	1.89E-06	3.03E-07	2.15E-07	2.53E-06
914	259924.7	4084044	1.2E-07	1.9E-06	3.05E-07	2.17E-07	2.54E-06
915	259921.8	4084016	1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.57E-06
916	259919	4084009	1.22E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
917	259920.4	4083998	1.22E-07	1.92E-06	3.09E-07	2.20E-07	2.58E-06
918	259920.4	4083987	1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
919	259920.4	4083977	1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
920	259919	4083962	1.23E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
921	259918.3	4083945	1.22E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
922	259915.4	4083930	1.23E-07	1.93E-06	3.10E-07	2.21E-07	2.59E-06
923	259914.7	4083919	1.23E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
924	259912.6	4083900	1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
925	259889.8	4083898	1.27E-07	1.99E-06	3.20E-07	2.27E-07	2.67E-06
926	259887.7	4083899	1.27E-07	2E-06	3.21E-07	2.28E-07	2.68E-06
927	259874.1	4083899	1.3E-07	2.04E-06	3.28E-07	2.33E-07	2.73E-06
928	259854.9	4083899	1.33E-07	2.1E-06	3.38E-07	2.40E-07	2.81E-06
929	259847.8	4083900	1.35E-07	2.12E-06	3.41E-07	2.43E-07	2.84E-06
930	259827.8	4083900	1.39E-07	2.19E-06	3.52E-07	2.50E-07	2.93E-06
931	259814.3	4083902	1.42E-07	2.23E-06	3.59E-07	2.55E-07	2.99E-06
932	259732.4	4083987	1.7E-07	2.68E-06	4.30E-07	3.05E-07	3.58E-06
933	259748	4083985	1.65E-07	2.6E-06	4.18E-07	2.97E-07	3.48E-06
934	259765.1	4083984	1.61E-07	2.53E-06	4.06E-07	2.89E-07	3.38E-06
935	259775.1	4083983	1.58E-07	2.48E-06	3.99E-07	2.84E-07	3.32E-06
936	259790.1	4083985	1.54E-07	2.42E-06	3.89E-07	2.77E-07	3.24E-06
937	259796.5	4083985	1.52E-07	2.4E-06	3.85E-07	2.74E-07	3.21E-06
938	259806.4	4083985	1.5E-07	2.36E-06	3.78E-07	2.69E-07	3.15E-06
939	259814.3	4083985	1.48E-07	2.32E-06	3.73E-07	2.65E-07	3.11E-06
940	259829.2	4083985	1.44E-07	2.26E-06	3.64E-07	2.58E-07	3.03E-06
941	259832.8	4083986	1.43E-07	2.25E-06	3.61E-07	2.57E-07	3.01E-06
942	259844.2	4083986	1.4E-07	2.21E-06	3.54E-07	2.52E-07	2.95E-06
943	259854.9	4083985	1.37E-07	2.16E-06	3.48E-07	2.47E-07	2.90E-06
944	259867	4083985	1.35E-07	2.12E-06	3.40E-07	2.42E-07	2.83E-06
945	259877.7	4083984	1.32E-07	2.08E-06	3.34E-07	2.37E-07	2.78E-06
946	259875.5	4083968	1.32E-07	2.08E-06	3.34E-07	2.38E-07	2.78E-06
947	259874.8	4083961	1.32E-07	2.08E-06	3.34E-07	2.37E-07	2.78E-06
948	259864.9	4083951	1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.82E-06
949	259850.6	4083953	1.37E-07	2.16E-06	3.47E-07	2.47E-07	2.89E-06
950	259841.3	4083953	1.39E-07	2.2E-06	3.53E-07	2.51E-07	2.94E-06
951	259827.8	4083954	1.43E-07	2.25E-06	3.61E-07	2.56E-07	3.01E-06
952	259825.7	4083954	1.43E-07	2.25E-06	3.62E-07	2.57E-07	3.02E-06
953	259817.1	4083954	1.45E-07	2.29E-06	3.67E-07	2.61E-07	3.06E-06
954	259803.6	4083954	1.48E-07	2.34E-06	3.75E-07	2.67E-07	3.13E-06
955	259794.3	4083953	1.51E-07	2.37E-06	3.81E-07	2.71E-07	3.17E-06
956	259775.1	4083953	1.55E-07	2.45E-06	3.93E-07	2.79E-07	3.27E-06
957	259773	4083953	1.56E-07	2.45E-06	3.94E-07	2.80E-07	3.28E-06
958	259764.4	4083953	1.58E-07	2.49E-06	4.00E-07	2.84E-07	3.33E-06
959	259757.3	4083953	1.6E-07	2.52E-06	4.04E-07	2.87E-07	3.37E-06
960	259744.5	4083955	1.63E-07	2.57E-06	4.13E-07	2.93E-07	3.44E-06
961	259741.6	4083955	1.64E-07	2.58E-06	4.15E-07	2.95E-07	3.45E-06
962	259733.8	4083956	1.66E-07	2.61E-06	4.20E-07	2.99E-07	3.50E-06
963	259728.1	4083956	1.68E-07	2.64E-06	4.24E-07	3.01E-07	3.53E-06
964	259727.4	4083956	1.68E-07	2.64E-06	4.24E-07	3.01E-07	3.53E-06
965	259820.7	4083868	1.38E-07	2.17E-06	3.48E-07	2.47E-07	2.90E-06
966	259837.8	4083869	1.35E-07	2.12E-06	3.40E-07	2.42E-07	2.83E-06
967	259854.9	4083869	1.31E-07	2.07E-06	3.32E-07	2.36E-07	2.77E-06
968	259874.1	4083868	1.28E-07	2.01E-06	3.23E-07	2.30E-07	2.69E-06
969	259888.4	4083867	1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
970	259899.8	4083867	1.23E-07	1.94E-06	3.11E-07	2.21E-07	2.59E-06
971	259912.6	4083867	1.21E-07	1.9E-06	3.06E-07	2.17E-07	2.55E-06
972	259926.8	4083867	1.18E-07	1.86E-06	2.99E-07	2.13E-07	2.49E-06
973	259924.7	4084029	1.21E-07	1.9E-06	3.06E-07	2.17E-07	2.55E-06
974	259721.7	4083811	1.47E-07	2.31E-06	3.72E-07	2.64E-07	3.10E-06
975	259738	4083810	1.44E-07	2.27E-06	3.65E-07	2.60E-07	3.04E-06
976	259752.3	4083809	1.42E-07	2.24E-06	3.60E-07	2.56E-07	2.99E-06
977	259768.7	4083809	1.4E-07	2.2E-06	3.53E-07	2.51E-07	2.94E-06
978	259780.1	4083809	1.38E-07	2.17E-06	3.49E-07	2.48E-07	2.90E-06
979	259791.5	4083809	1.36E-07	2.14E-06	3.44E-07	2.45E-07	2.87E-06
980	259803.6	4083808	1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.83E-06
981	259822.8	4083806	1.31E-07	2.06E-06	3.31E-07	2.35E-07	2.76E-06
982	259839.9	4083806	1.28E-07	2.02E-06	3.25E-07	2.31E-07	2.70E-06
983	259858.4	4083806	1.25E-07	1.98E-06	3.17E-07	2.26E-07	2.64E-06
984	259872	4083804	1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
985	259722.4	4083778	1.41E-07	2.22E-06	3.57E-07	2.54E-07	2.98E-06
986	259734.5	4083778	1.4E-07	2.2E-06	3.53E-07	2.51E-07	2.94E-06
987	259745.2	4083780	1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
988	259753	4083780	1.38E-07	2.17E-06	3.48E-07	2.47E-07	2.90E-06
989	259765.8	4083779	1.36E-07	2.14E-06	3.43E-07	2.44E-07	2.86E-06
990	259771.5	4083778	1.35E-07	2.12E-06	3.41E-07	2.42E-07	2.84E-06
991	259780.8	4083777	1.33E-07	2.1E-06	3.38E-07	2.40E-07	2.81E-06
992	259787.9	4083776	1.32E-07	2.08E-06	3.35E-07	2.38E-07	2.79E-06
993	259797.2	4083775	1.31E-07	2.06E-06	3.31E-07	2.35E-07	2.76E-06
994	259806.4	4083774	1.3E-07	2.04E-06	3.28E-07	2.33E-07	2.73E-06
995	259816.4	4083773	1.28E-07	2.02E-06	3.24E-07	2.30E-07	2.70E-06
996	259837.8	4083773	1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
997	259850.6	4083773	1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
998	259864.9	4083774	1.22E-07	1.91E-06	3.07E-07	2.18E-07	2.56E-06
999	259882	4083773	1.19E-07	1.88E-06	3.01E-07	2.14E-07	2.51E-06
1000	259889.1	4083773	1.18E-07	1.86E-06	2.99E-07	2.12E-07	2.49E-06
1001	259893.4	4083809	1.2E-07	1.9E-06	3.05E-07	2.17E-07	2.54E-06
1002	259913.3	4083808	1.17E-07	1.85E-06	2.97E-07	2.11E-07	2.47E-06
1003	259918.3	4083774	1.14E-07	1.8E-06	2.89E-07	2.05E-07	2.41E-06
1004	259918.3	4083759	1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
1005	259916.1	4083742	1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.36E-06
1006	259918.3	4083725	1.1E-07	1.74E-06	2.79E-07	1.99E-07	2.33E-06
1007	259918.3	4083717	1.1E-07	1.73E-06	2.78E-07	1.97E-07	2.31E-06
1008	259919	4083696	1.08E-07	1.7E-06	2.73E-07	1.94E-07	2.27E-06
1009	259916.9	4083683	1.07E-07	1.68E-06	2.71E-07	1.92E-07	2.25E-06
1010	259917.6	4083671	1.06E-07	1.67E-06	2.68E-07	1.90E-07	2.23E-06
1011	259917.6	4083658	1.05E-07	1.65E-06	2.64E-07	1.88E-07	2.20E-06
1012	259913.3	4083645	1.04E-07	1.63E-06	2.63E-07	1.87E-07	2.19E-06
1013	259914.7	4083640	1.03E-07	1.62E-06	2.61E-07	1.85E-07	2.17E-06
1014	259915.4	4083624	1.02E-07	1.6E-06	2.57E-07	1.83E-07	2.14E-06
1015	259915.4	4083616	1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.12E-06
1016	259913.3	4083597	9.9E-08	1.56E-06	2.50E-07	1.78E-07	2.09E-06
1017	259913.3	4083591	9.84E-08	1.55E-06	2.49E-07	1.77E-07	2.07E-06
1018	259912.6	4083574	9.67E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
1019	259909.7	4083566	9.6E-08	1.51E-06	2.43E-07	1.73E-07	2.02E-06
1020	259909	4083556	9.51E-08	1.5E-06	2.40E-07	1.71E-07	2.00E-06
1021	259907.6	4083549	9.43E-08	1.49E-06	2.39E-07	1.70E-07	1.99E-06

1.30E-07	2.05E-06	3.30E-07	2.34E-07	2.75E-06
1.32E-07	2.07E-06	3.33E-07	2.36E-07	2.77E-06
1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.82E-06
1.37E-07	2.15E-06	3.46E-07	2.46E-07	2.88E-06
1.39E-07	2.20E-06	3.53E-07	2.51E-07	2.94E-06
1.44E-07	2.26E-06	3.63E-07	2.58E-07	3.02E-06
1.46E-07	2.30E-06	3.70E-07	2.63E-07	3.08E-06
1.49E-07	2.34E-06	3.76E-07	2.67E-07	3.13E-06
1.52E-07	2.39E-06	3.84E-07	2.73E-07	3.19E-06
1.47E-07	2.31E-06	3.71E-07	2.64E-07	3.09E-06
1.42E-07	2.23E-06	3.59E-07	2.55E-07	2.99E-06
1.34E-07	2.11E-06	3.38E-07	2.40E-07	2.82E-06
1.32E-07	2.08E-06	3.33E-07	2.37E-07	2.78E-06
1.28E-07	2.01E-06	3.23E-07	2.29E-07	2.69E-06
1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.57E-06
1.18E-07	1.86E-06	2.98E-07	2.12E-07	2.48E-06
1.16E-07	1.83E-06	2.94E-07	2.09E-07	2.45E-06
1.18E-07	1.86E-06	2.99E-07	2.12E-07	2.49E-06
1.19E-07	1.88E-06	3.01E-07	2.14E-07	2.51E-06
1.20E-07	1.89E-06	3.03E-07	2.15E-07	2.53E-06
1.20E-07	1.90E-06	3.05E-07	2.17E-07	2.54E-06
1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.57E-06
1.22E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
1.22E-07	1.92E-06	3.09E-07	2.20E-07	2.58E-06
1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
1.23E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
1.22E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
1.23E-07	1.93E-06	3.10E-07	2.21E-07	2.59E-06
1.23E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
1.27E-07	1.99E-06	3.20E-07	2.27E-07	2.67E-06
1.27E-07	2.00E-06	3.21E-07	2.28E-07	2.68E-06
1.30E-07	2.04E-06	3.28E-07	2.33E-07	2.73E-06
1.33E-07	2.10E-06	3.38E-07	2.40E-07	2.81E-06
1.35E-07	2.12E-06	3.41E-07	2.43E-07	2.84E-06
1.39E-07	2.19E-06	3.52E-07	2.50E-07	2.93E-06
1.42E-07	2.23E-06	3.59E-07	2.55E-07	2.99E-06
1.70E-07	2.68E-06	4.30E-07	3.05E-07	3.58E-06
1.65E-07	2.60E-06	4.18E-07	2.97E-07	3.48E-06
1.61E-07	2.53E-06	4.06E-07	2.89E-07	3.38E-06
1.58E-07	2.48E-06	3.99E-07	2.84E-07	3.32E-06
1.54E-07	2.42E-06	3.89E-07	2.77E-07	3.24E-06
1.52E-07	2.40E-06	3.85E-07	2.74E-07	3.21E-06
1.50E-07	2.36E-06	3.78E-07	2.69E-07	3.15E-06
1.48E-07	2.32E-06	3.73E-07	2.65E-07	3.11E-06
1.44E-07	2.26E-06	3.64E-07	2.58E-07	3.03E-06
1.43E-07	2.25E-06	3.61E-07	2.57E-07	3.01E-06
1.40E-07	2.21E-06	3.54E-07	2.52E-07	2.95E-06
1.37E-07	2.16E-06	3.48E-07	2.47E-07	2.90E-06
1.35E-07	2.12E-06	3.40E-07	2.42E-07	2.83E-06
1.32E-07	2.08E-06	3.34E-07	2.37E-07	2.78E-06
1.32E-07	2.08E-06	3.34E-07	2.38E-07	2.78E-06
1.32E-07	2.08E-06	3.34E-07	2.37E-07	2.78E-06
1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.82E-06
1.37E-07	2.16E-06	3.47E-07	2.47E-07	2.89E-06
1.39E-07	2.20E-06	3.53E-07	2.51E-07	2.94E-06
1.43E-07	2.25E-06	3.61E-07	2.56E-07	3.01E-06
1.43E-07	2.25E-06	3.62E-07	2.57E-07	3.02E-06
1.45E-07	2.29E-06	3.67E-07	2.61E-07	3.06E-06
1.48E-07	2.34E-06	3.75E-07	2.67E-07	3.13E-06
1.51E-07	2.37E-06	3.81E-07	2.71E-07	3.17E-06
1.55E-07	2.45E-06	3.93E-07	2.79E-07	3.27E-06
1.56E-07	2.45E-06	3.94E-07	2.80E-07	3.28E-06
1.58E-07	2.49E-06	4.00E-07	2.84E-07	3.33E-06
1.60E-07	2.52E-06	4.04E-07	2.87E-07	3.37E-06
1.63E-07	2.57E-06	4.13E-07	2.93E-07	3.44E-06
1.64E-07	2.58E-06	4.15E-07	2.95E-07	3.45E-06
1.66E-07	2.61E-06	4.20E-07	2.99E-07	3.50E-06
1.68E-07	2.64E-06	4.24E-07	3.01E-07	3.53E-06
1.68E-07	2.64E-06	4.24E-07	3.01E-07	3.53E-06
1.38E-07	2.17E-06	3.48E-07	2.47E-07	2.90E-06
1.35E-07	2.12E-06	3.40E-07	2.42E-07	2.83E-06
1.31E-07	2.07E-06	3.32E-07	2.36E-07	2.77E-06
1.28E-07	2.01E-06	3.23E-07	2.30E-07	2.69E-06
1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
1.23E-07	1.94E-06	3.11E-07	2.21E-07	2.59E-06
1.21E-07	1.90E-06	3.06E-07	2.17E-07	2.55E-06
1.18E-07	1.86E-06	2.99E-07	2.13E-07	2.49E-06
1.21E-07	1.90E-06	3.06E-07	2.17E-07	2.55E-06
1.47E-07	2.31E-06	3.72E-07	2.64E-07	3.10E-06
1.44E-07	2.27E-06	3.65E-07	2.60E-07	3.04E-06
1.42E-07	2.24E-06	3.60E-07	2.56E-07	2.99E-06
1.40E-07	2.20E-06	3.53E-07	2.51E-07	2.94E-06
1.38E-07	2.17E-06	3.49E-07	2.48E-07	2.90E-06
1.36E-07	2.14E-06	3.44E-07	2.45E-07	2.87E-06
1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.83E-06
1.31E-07	2.06E-06	3.31E-07	2.35E-07	2.76E-06
1.28E-07	2.02E-06	3.25E-07	2.31E-07	2.70E-06
1.25E-07	1.98E-06	3.17E-07	2.26E-07	2.64E-06
1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
1.41E-07	2.22E-06	3.57E-07	2.54E-07	2.98E-06
1.40E-07	2.20E-06	3.53E-07	2.51E-07	2.94E-06
1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
1.38E-07	2.17E-06	3.48E-07	2.47E-07	2.90E-06
1.36E-07	2.14E-06	3.43E-07	2.44E-07	2.86E-06
1.35E-07	2.12E-06	3.41E-07	2.42E-07	2.84E-06
1.33E-07	2.10E-06	3.38E-07	2.40E-07	2.81E-06
1.32E-07	2.08E-06	3.35E-07	2.38E-07	2.79E-06
1.31E-07	2.06E-06	3.31E-07	2.35E-07	2.76E-06
1.30E-07	2.04E-06	3.28E-07	2.33E-07	2.73E-06
1.28E-07	2.02E-06	3.24E-07	2.30E-07	2.70E-06
1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
1.22E-07	1.91E-06	3.07E-07	2.18E-07	2.56E-06
1.19E-07	1.88E-06	3.01E-07	2.14E-07	2.51E-06
1.18E-07	1.86E-06	2.99E-07	2.12E-07	2.49E-06
1.20E-07	1.90E-06	3.05E-07	2.17E-07	2.54E-06
1.17E-07	1.85E-06	2.97E-07	2.11E-07	2.47E-06
1.14E-07	1.80E-06	2.89E-07	2.05E-07	2.41E-06
1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.36E-06
1.10E-07	1.74E-06	2.79E-07	1.99E-07	2.33E-06
1.10E-07	1.73E-06	2.78E-07	1.97E-07	2.31E-06
1.08E-07	1.70E-06	2.73E-07	1.94E-07	2.27E-06
1.07E-07	1.68E-06	2.71E-07	1.92E-07	2.25E-06
1.06E-07	1.67E-06	2.68E-07	1.90E-07	2.23E-06
1.05E-07	1.65E-06	2.64E-07	1.88E-07	2.20E-06
1.04E-07	1.63E-06	2.63E-07	1.87E-07	2.19E-06
1.03E-07	1.62E-06	2.61E-07	1.85E-07	2.17E-06
1.02E-07	1.60E-06	2.57E-07	1.83E-07	2.14E-06
1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.12E-06
9.90E-08	1.56E-06	2.50E-07	1.78E-07	2.09E-06
9.84E-08	1.55E-06	2.49E-07	1.77E-07	2.07E-06
9.67E-08	1.52E-06	2.45E-07	1.74E-07	2.04E-06
9.60E-08	1.51E-06	2.43E-07	1.73E-07	2.02E-06
9.51E-08	1.50E-06	2.40E-07	1.71E-07	2.00E-06
9.43E-08	1.49E-06	2.39E-07	1.70E-07	1.99E-06

1.98E-08	3.59E-07	5.41E-08	3.80E-08	4.71E-07
2.00E-08	3.62E-07	5.46E-08	3.83E-08	4.75E-07
2.04E-08	3.69E-07	5.57E-08	3.90E-08	4.84E-07
2.08E-08	3.76E-07	5.68E-08	3.98E-08	4.94E-07
2.12E-08	3.84E-07	5.79E-08	4.06E-08	5.03E-07
2.18E-08	3.95E-07	5.96E-08	4.18E-08	5.18E-07
2.22E-08	4.02E-07	6.07E-08	4.25E-08	5.27E-07
2.26E-08	4.09E-07	6.18E-08	4.33E-08	5.37E-07
2.31E-08	4.17E-07	6.30E-08	4.41E-08	5.47E-07
2.23E-08	4.04E-07	6.09E-08	4.27E-08	5.30E-07
2.16E-08	3.90E-07	5.89E-08	4.13E-08	5.11E-07
2.03E-08	3.68E-07	5.55E-08	3.89E-08	4.83E-07
2.00E-08	3.63E-07	5.47E-08	3.84E-08	4.76E-07
1.94E-08	3.51E-07	5.30E-08	3.71E-08	4.60E-07
1.85E-08	3.35E-07	5.06E-08	3.54E-08	4.39E-07
1.79E-08	3.24E-07	4.89E-08	3.43E-08	4.25E-07
1.77E-08	3.19E-07	4.82E-08	3.38E-08	4.19E-07
1.80E-08	3.25E-07	4.90E-08	3.44E-08	4.26E-07
1.81E-08	3.28E-07	4.95E-08	3.47E-08	4.30E-07
1.82E-08	3.30E-07	4.98E-08	3.49E-08	4.32E-07
1.83E-08	3.31E-07	5.00E-08	3.51E-08	4.35E-07
1.85E-08	3.35E-07	5.06E-08	3.54E-08	4.39E-07
1.86E-08	3.37E-07	5.09E-08	3.56E-08	4.42E-07
1.86E-08	3.36E-07	5.08E-08	3.56E-08	4.41E-07
1.86E-08	3.36E-07	5.08E-08	3.56E-08	4.41E-07
1.86E-08	3.36E-07	5.08E-08	3.56E-08	4.41E-07
1.86E-08	3.37E-07	5.09E-08	3.57E-08	4.42E-07
1.86E-08	3.37E-07	5.08E-08	3.56E-08	4.42E-07
1.87E-08	3.37E-07	5.10E-08	3.57E-08	4.43E-07
1.86E-08	3.37E-07	5.09E-08	3.57E-08	4.42E-07
1.86E-08	3.36E-07	5.08E-08	3.56E-08	4.41E-07
1.92E-08	3.48E-07	5.25E-08	3.68E-08	4.57E-07
1.93E-08	3.49E-07	5.27E-08	3.70E-08	4.58E-07
1.97E-08	3.57E-07	5.38E-08	3.77E-08	4.68E-07
2.03E-08	3.67E-07	5.54E-08	3.88E-08	4.82E-07
2.05E-08	3.71E-07

1022	259907.6	4083539	9.33E-08	1.47E-06	2.36E-07	1.68E-07	1.97E-06
1023	259905.5	4083527	9.22E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
1024	259903.3	4083518	9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
1025	259899.8	4083510	9.06E-08	1.43E-06	2.29E-07	1.63E-07	1.91E-06
1026	259894.8	4083504	9.01E-08	1.42E-06	2.28E-07	1.62E-07	1.90E-06
1027	259886.2	4083499	8.99E-08	1.42E-06	2.27E-07	1.62E-07	1.89E-06
1028	259880.5	4083498	9E-08	1.42E-06	2.28E-07	1.62E-07	1.90E-06
1029	259868.4	4083498	9.04E-08	1.42E-06	2.29E-07	1.62E-07	1.90E-06
1030	259854.2	4083498	9.08E-08	1.43E-06	2.30E-07	1.63E-07	1.91E-06
1031	259844.2	4083499	9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
1032	259825	4083501	9.21E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
1033	259820	4083501	9.22E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
1034	259799.3	4083504	9.3E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
1035	259867	4083581	1E-07	1.58E-06	2.53E-07	1.80E-07	2.11E-06
1036	259859.2	4083581	1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.12E-06
1037	259847.8	4083581	1.01E-07	1.6E-06	2.56E-07	1.82E-07	2.14E-06
1038	259837.1	4083585	1.02E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
1039	259824.2	4083588	1.04E-07	1.63E-06	2.62E-07	1.86E-07	2.18E-06
1040	259812.1	4083596	1.05E-07	1.66E-06	2.66E-07	1.89E-07	2.22E-06
1041	259803.6	4083603	1.07E-07	1.68E-06	2.70E-07	1.92E-07	2.25E-06
1042	259795	4083611	1.08E-07	1.71E-06	2.74E-07	1.95E-07	2.28E-06
1043	259785.8	4083620	1.1E-07	1.74E-06	2.79E-07	1.98E-07	2.32E-06
1044	259776.5	4083629	1.12E-07	1.76E-06	2.83E-07	2.01E-07	2.36E-06
1045	259773	4083633	1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
1046	259767.3	4083638	1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06
1047	259760.1	4083648	1.16E-07	1.83E-06	2.93E-07	2.08E-07	2.44E-06
1048	259748.7	4083653	1.18E-07	1.85E-06	2.97E-07	2.11E-07	2.48E-06
1049	259738.8	4083662	1.2E-07	1.89E-06	3.03E-07	2.15E-07	2.53E-06
1050	259730.2	4083667	1.21E-07	1.91E-06	3.07E-07	2.18E-07	2.56E-06
1051	259720.2	4083675	1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
1052	259708.1	4083683	1.26E-07	1.98E-06	3.18E-07	2.26E-07	2.65E-06
1053	259701	4083690	1.27E-07	2.01E-06	3.22E-07	2.29E-07	2.69E-06
1054	259688.2	4083704	1.31E-07	2.06E-06	3.31E-07	2.36E-07	2.76E-06
1055	259683.9	4083712	1.33E-07	2.09E-06	3.36E-07	2.39E-07	2.80E-06
1056	259678.2	4083722	1.36E-07	2.13E-06	3.43E-07	2.44E-07	2.86E-06
1057	259671.1	4083734	1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
1058	259669.7	4083744	1.41E-07	2.22E-06	3.56E-07	2.53E-07	2.97E-06
1059	259671.1	4083762	1.44E-07	2.27E-06	3.65E-07	2.59E-07	3.04E-06
1060	259669.7	4083775	1.47E-07	2.32E-06	3.73E-07	2.65E-07	3.10E-06
1061	259668.9	4083783	1.49E-07	2.35E-06	3.77E-07	2.68E-07	3.14E-06
1062	259668.9	4083793	1.51E-07	2.38E-06	3.82E-07	2.72E-07	3.18E-06
1063	259671.1	4083807	1.54E-07	2.42E-06	3.89E-07	2.76E-07	3.24E-06
1064	259661.1	4083814	1.56E-07	2.46E-06	3.96E-07	2.81E-07	3.30E-06
1065	259654	4083814	1.58E-07	2.48E-06	3.98E-07	2.83E-07	3.32E-06
1066	259641.9	4083813	1.59E-07	2.5E-06	4.02E-07	2.86E-07	3.35E-06
1067	259634.8	4083810	1.59E-07	2.51E-06	4.03E-07	2.87E-07	3.36E-06
1068	259635.5	4083794	1.56E-07	2.45E-06	3.94E-07	2.80E-07	3.28E-06
1069	259635.5	4083783	1.53E-07	2.41E-06	3.87E-07	2.75E-07	3.22E-06
1070	259635.5	4083774	1.51E-07	2.37E-06	3.82E-07	2.71E-07	3.18E-06
1071	259635.5	4083764	1.49E-07	2.34E-06	3.76E-07	2.67E-07	3.13E-06
1072	259633.3	4083754	1.46E-07	2.3E-06	3.70E-07	2.63E-07	3.08E-06
1073	259631.9	4083739	1.43E-07	2.25E-06	3.62E-07	2.57E-07	3.02E-06
1074	259632.6	4083730	1.41E-07	2.22E-06	3.56E-07	2.53E-07	2.97E-06
1075	259632.6	4083723	1.39E-07	2.19E-06	3.52E-07	2.50E-07	2.93E-06
1076	259635.5	4083717	1.38E-07	2.17E-06	3.48E-07	2.48E-07	2.90E-06
1077	259644.7	4083709	1.35E-07	2.13E-06	3.42E-07	2.43E-07	2.85E-06
1078	259647.6	4083702	1.34E-07	2.1E-06	3.38E-07	2.40E-07	2.81E-06
1079	259654	4083692	1.31E-07	2.06E-06	3.31E-07	2.35E-07	2.76E-06
1080	259659	4083688	1.3E-07	2.04E-06	3.28E-07	2.33E-07	2.73E-06
1081	259671.1	4083677	1.27E-07	1.99E-06	3.20E-07	2.28E-07	2.67E-06
1082	259683.2	4083666	1.24E-07	1.95E-06	3.13E-07	2.23E-07	2.61E-06
1083	259685.3	4083665	1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.60E-06
1084	259688.2	4083661	1.23E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
1085	259696	4083653	1.21E-07	1.9E-06	3.05E-07	2.17E-07	2.54E-06
1086	259706.7	4083645	1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
1087	259711.7	4083641	1.18E-07	1.85E-06	2.98E-07	2.12E-07	2.48E-06
1088	259718.8	4083638	1.17E-07	1.84E-06	2.95E-07	2.10E-07	2.46E-06
1089	259728.1	4083626	1.14E-07	1.8E-06	2.89E-07	2.05E-07	2.41E-06
1090	259735.9	4083618	1.13E-07	1.77E-06	2.85E-07	2.02E-07	2.37E-06
1091	259742.3	4083613	1.11E-07	1.75E-06	2.81E-07	2.00E-07	2.34E-06
1092	259755.1	4083598	1.08E-07	1.7E-06	2.74E-07	1.95E-07	2.28E-06
1093	259757.3	4083596	1.08E-07	1.7E-06	2.73E-07	1.94E-07	2.27E-06
1094	259763	4083591	1.07E-07	1.68E-06	2.70E-07	1.92E-07	2.25E-06
1095	259770.8	4083578	1.05E-07	1.65E-06	2.65E-07	1.88E-07	2.21E-06
1096	259777.2	4083574	1.04E-07	1.63E-06	2.62E-07	1.87E-07	2.19E-06
1097	259783.6	4083567	1.02E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
1098	259791.5	4083558	1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.13E-06
1099	259801.5	4083555	1E-07	1.58E-06	2.53E-07	1.80E-07	2.11E-06
1100	259807.2	4083546	9.86E-08	1.55E-06	2.50E-07	1.77E-07	2.08E-06
1101	259829.2	4083544	9.74E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
1102	259832.1	4083544	9.73E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
1103	259851.3	4083549	9.71E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
1104	259868.4	4083549	9.63E-08	1.52E-06	2.44E-07	1.73E-07	2.03E-06
1105	259726.7	4083739	1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.83E-06
1106	259735.9	4083731	1.32E-07	2.07E-06	3.33E-07	2.37E-07	2.78E-06
1107	259745.2	4083719	1.29E-07	2.03E-06	3.26E-07	2.32E-07	2.72E-06
1108	259763	4083730	1.29E-07	2.03E-06	3.26E-07	2.31E-07	2.71E-06
1109	259777.9	4083732	1.27E-07	2E-06	3.22E-07	2.29E-07	2.68E-06
1110	259796.5	4083732	1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
1111	259810	4083732	1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.61E-06
1112	259825.7	4083732	1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.57E-06
1113	259833.5	4083732	1.21E-07	1.91E-06	3.06E-07	2.18E-07	2.55E-06
1114	259854.2	4083730	1.18E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
1115	259864.1	4083729	1.17E-07	1.85E-06	2.96E-07	2.11E-07	2.47E-06
1116	259876.3	4083729	1.16E-07	1.82E-06	2.93E-07	2.08E-07	2.44E-06
1117	259871.3	4083710	1.14E-07	1.8E-06	2.89E-07	2.06E-07	2.41E-06
1118	259862	4083711	1.15E-07	1.82E-06	2.92E-07	2.08E-07	2.43E-06
1119	259852.7	4083712	1.17E-07	1.84E-06	2.95E-07	2.10E-07	2.46E-06
1120	259843.5	4083712	1.18E-07	1.85E-06	2.97E-07	2.11E-07	2.48E-06
1121	259829.2	4083710	1.19E-07	1.87E-06	3.01E-07	2.14E-07	2.51E-06
1122	259817.1	4083712	1.2E-07	1.9E-06	3.05E-07	2.17E-07	2.54E-06
1123	259800	4083712	1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
1124	259787.9	4083710	1.23E-07	1.94E-06	3.12E-07	2.21E-07	2.60E-06
1125	259781.5	4083710	1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.61E-06
1126	259768.7	4083705	1.24E-07	1.96E-06	3.15E-07	2.24E-07	2.62E-06
1127	259763.7	4083702	1.24E-07	1.96E-06	3.14E-07	2.23E-07	2.62E-06
1128	259793.6	4083671	1.17E-07	1.84E-06	2.96E-07	2.10E-07	2.47E-06
1129	259807.9	4083671	1.16E-07	1.82E-06	2.93E-07	2.08E-07	2.44E-06
1130	259822.8	4083669	1.14E-07	1.8E-06	2.89E-07	2.05E-07	2.41E-06
1131	259830.7	4083669	1.14E-07	1.79E-06	2.87E-07	2.04E-07	2.39E-06
1132	259843.5	4083668	1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.37E-06
1133	259854.9	4083667	1.11E-07	1.75E-06	2.81E-07	2.00E-07	2.34E-06
1134	259864.1	4083667	1.1E-07	1.74E-06	2.79E-07	1.98E-07	2.33E-06
1135	259872.7	4083667	1.1E-07	1.73E-06	2.77E-07	1.97E-07	2.31E-06
1136	259869.1	4083642	1.07E-07	1.69E-06	2.71E-07	1.93E-07	2.26E-06
1137	259869.1	4083628	1.06E-07	1.66E-06	2.67E-07	1.90E-07	2.23E-06
1138	259854.2	4083629	1.07E-07	1.68E-06	2.70E-07	1.92E-07	2.25E-06
1139	259842.8	4083633	1.08E-07	1.7E-06	2.74E-07	1.94E-07	2.28E-06
1140	259831.4	4083640	1.1E-07	1.73E-06	2.78E-07	1.98E-07	2.32E-06
1141	259820.7	4083645	1.11E-07	1.75E-06	2.82E-07	2.00E-07	2.35E-06
1142	259812.9	4083653	1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
1143	259802.2	4083662	1.15E-07	1.81E-06	2.91E-07	2.07E-07	2.42E-06
1144	259816.4	4083545	9.81E-08	1.54E-06	2.48E-07	1.76E-07	2.07E-06

			9.33E-08	1.47E-06	2.36E-07	1.68E-07	1.97E-06
			9.22E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
			9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
			9.06E-08	1.43E-06	2.29E-07	1.63E-07	1.91E-06
			9.01E-08	1.42E-06	2.28E-07	1.62E-07	1.90E-06
			8.99E-08	1.42E-06	2.27E-07	1.62E-07	1.89E-06
			9.00E-08	1.42E-06	2.28E-07	1.62E-07	1.90E-06
			9.04E-08	1.42E-06	2.29E-07	1.62E-07	1.90E-06
			9.08E-08	1.43E-06	2.30E-07	1.63E-07	1.91E-06
			9.13E-08	1.44E-06	2.31E-07	1.64E-07	1.92E-06
			9.21E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
			9.22E-08	1.45E-06	2.33E-07	1.66E-07	1.94E-06
			9.30E-08	1.46E-06	2.35E-07	1.67E-07	1.96E-06
			1.00E-07	1.58E-06	2.53E-07	1.80E-07	2.11E-06
			1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.12E-06
			1.01E-07	1.60E-06	2.56E-07	1.82E-07	2.14E-06
			1.02E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
			1.04E-07	1.63E-06	2.62E-07	1.86E-07	2.18E-06
			1.05E-07	1.66E-06	2.66E-07	1.89E-07	2.22E-06
			1.07E-07	1.68E-06	2.70E-07	1.92E-07	2.25E-06
			1.08E-07	1.71E-06	2.74E-07	1.95E-07	2.28E-06
			1.10E-07	1.74E-06	2.79E-07	1.98E-07	2.32E-06
			1.12E-07	1.76E-06	2.83E-07	2.01E-07	2.36E-06
			1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
			1.14E-07	1.79E-06	2.88E-07	2.05E-07	2.40E-06
			1.16E-07	1.83E-06	2.93E-07	2.08E-07	2.44E-06
			1.18E-07	1.85E-06	2.97E-07	2.11E-07	2.48E-06
			1.20E-07	1.89E-06	3.03E-07	2.15E-07	2.53E-06
			1.21E-07	1.91E-06	3.07E-07	2.18E-07	2.56E-06
			1.23E-07	1.94E-06	3.12E-07	2.22E-07	2.60E-06
			1.26E-07	1.98E-06	3.18E-07	2.26E-07	2.65E-06
			1.27E-07	2.01E-06	3.22E-07	2.29E-07	2.69E-06
			1.31E-07	2.06E-06	3.31E-07	2.36E-07	2.76E-06
			1.33E-07	2.09E-06	3.36E-07	2.39E-07	2.80E-06
			1.36E-07	2.13E-06	3.43E-07	2.44E-07	2.86E-06
			1.39E-07	2.18E-06	3.51E-07	2.49E-07	2.92E-06
			1.41E-07	2.22E-06	3.56E-07	2.53E-07	2.97E-06
			1.44E-07	2.27E-06	3.65E-07	2.59E-07	3.04E-06
			1.47E-07	2.32E-06	3.73E-07	2.65E-07	3.10E-06
			1.49E-07	2.35E-06	3.77E-07	2.68E-07	3.14E-06
			1.51E-07	2.38E-06	3.82E-07	2.72E-07	3.18E-06
			1.54E-07	2.42E-06	3.89E-07	2.76E-07	3.24E-06
			1.56E-07	2.46E-06	3.96E-07	2.81E-07	3.30E-06
			1.58E-07	2.48E-06	3.98E-07	2.83E-07	3.32E-06
			1.59E-07	2.50E-06	4.02E-07	2.86E-07	3.35E-06
			1.59E-07	2.51E-06	4.03E-07	2.87E-07	3.36E-06
			1.56E-07	2.45E-06	3.94E-07	2.80E-07	3.28E-06
			1.53E-07	2.41E-06	3.87E-07	2.75E-07	3.22E-06
			1.51E-07	2.37E-06	3.82E-07	2.71E-07	3.18E-06
			1.49E-07	2.34E-06	3.76E-07	2.67E-07	3.13E-06
			1.46E-07	2.30E-06	3.70E-07	2.63E-07	3.08E-06
			1.43E-07	2.25E-06	3.62E-07	2.57E-07	3.02E-06
			1.41E-07	2.22E-06	3.56E-07	2.53E-07	2.97E-06
			1.39E-07	2.19E-06	3.52E-07	2.50E-07	2.93E-06
			1.38E-07	2.17E-06	3.48E-07	2.48E-07	2.90E-06
			1.35E-07	2.13E-06	3.42E-07	2.43E-07	2.85E-06
			1.34E-07	2.10E-06	3.38E-07	2.40E-07	2.81E-06
			1.31E-07	2.06E-06	3.31E-07	2.35E-07	2.76E-06
			1.30E-07	2.04E-06	3.28E-07	2.33E-07	2.73E-06
			1.27E-07	1.99E-06	3.20E-07	2.28E-07	2.67E-06
			1.24E-07	1.95E-06	3.13E-07	2.23E-07	2.61E-06
			1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.60E-06
			1.23E-07	1.93E-06	3.10E-07	2.20E-07	2.58E-06
			1.21E-07	1.90E-06	3.05E-07	2.17E-07	2.54E-06
			1.19E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
			1.18E-07	1.85E-06	2.98E-07	2.12E-07	2.48E-06
			1.17E-07	1.84E-06	2.95E-07	2.10E-07	2.46E-06
			1.14E-07	1.80E-06	2.89E-07	2.05E-07	2.41E-06
			1.13E-07	1.77E-06	2.85E-07	2.02E-07	2.37E-06
			1.11E-07	1.75E-06	2.81E-07	2.00E-07	2.34E-06
			1.08E-07	1.70E-06	2.74E-07	1.95E-07	2.28E-06
			1.08E-07	1.70E-06	2.73E-07	1.94E-07	2.27E-06
			1.07E-07	1.68E-06	2.70E-07	1.92E-07	2.25E-06
			1.05E-07	1.65E-06	2.65E-07	1.88E-07	2.21E-06
			1.04E-07	1.63E-06	2.62E-07	1.87E-07	2.19E-06
			1.02E-07	1.61E-06	2.59E-07	1.84E-07	2.16E-06
			1.01E-07	1.59E-06	2.55E-07	1.81E-07	2.13E-06
			1.00E-07	1.58E-06	2.53E-07	1.80E-07	2.11E-06
			9.86E-08	1.55E-06	2.50E-07	1.77E-07	2.08E-06
			9.74E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
			9.73E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
			9.71E-08	1.53E-06	2.46E-07	1.75E-07	2.05E-06
			9.63E-08	1.52E-06	2.44E-07	1.73E-07	2.03E-06
			1.34E-07	2.11E-06	3.39E-07	2.41E-07	2.83E-06
			1.32E-07	2.07E-06	3.33E-07	2.37E-07	2.78E-06
			1.29E-07	2.03E-06	3.26E-07	2.32E-07	2.72E-06
			1.29E-07	2.03E-06	3.26E-07	2.31E-07	2.71E-06
			1.27E-07	2.00E-06	3.22E-07	2.29E-07	2.68E-06
			1.25E-07	1.97E-06	3.17E-07	2.25E-07	2.64E-06
			1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.61E-06
			1.22E-07	1.92E-06	3.08E-07	2.19E-07	2.57E-06
			1.21E-07	1.91E-06	3.06E-07	2.18E-07	2.55E-06
			1.18E-07	1.87E-06	3.00E-07	2.13E-07	2.50E-06
			1.17E-07	1.85E-06	2.96E-07	2.11E-07	2.47E-06
			1.16E-07	1.82E-06	2.93E-07	2.08E-07	2.44E-06
			1.14E-07	1.80E-06	2.89E-07	2.06E-07	2.41E-06
			1.15E-07	1.82E-06	2.92E-07	2.08E-07	2.43E-06
			1.17E-07	1.84E-06	2.95E-07	2.10E-07	2.46E-06
			1.18E-07	1.85E-06	2.97E-07	2.11E-07	2.48E-06
			1.19E-07	1.87E-06	3.01E-07	2.14E-07	2.51E-06
			1.20E-07	1.90E-06	3.05E-07	2.17E-07	2.54E-06
			1.22E-07	1.93E-06	3.09E-07	2.20E-07	2.58E-06
			1.23E-07	1.94E-06	3.12E-07	2.21E-07	2.60E-06
			1.24E-07	1.95E-06	3.13E-07	2.22E-07	2.61E-06
			1.24E-07	1.96E-06	3.15E-07	2.24E-07	2.62E-06
			1.24E-07	1.96E-06	3.14E-07	2.23E-07	2.62E-06
			1.17E-07	1.84E-06	2.96E-07	2.10E-07	2.47E-06
			1.16E-07	1.82E-06	2.93E-07	2.08E-07	2.44E-06
			1.14E-07	1.80E-06	2.89E-07	2.05E-07	2.41E-06
			1.14E-07	1.79E-06	2.87E-07	2.04E-07	2.39E-06
			1.12E-07	1.77E-06	2.84E-07	2.02E-07	2.37E-06
			1.11E-07	1.75E-06	2.81E-07	2.00E-07	2.34E-06
			1.10E-07	1.74E-06	2.79E-07	1.98E-07	2.33E-06
			1.10E-07	1.73E-06	2.77E-07	1.97E-07	2.31E-06
			1.07E-07	1.69E-06	2.71E-07	1.93E-07	2.26E-06
			1.06E-07	1.66E-06	2.67E-07	1.90E-07	2.23E-06
			1.07E-07	1.68E-06	2.70E-07	1.92E-07	2.25E-06
			1.08E-07	1.70E-06	2.74E-07	1.94E-07	2.28E-06
			1.10E-07	1.73E-06	2.78E-07	1.98E-07	2.32E-06
			1.11E-07	1.75E-06	2.82E-07	2.00E-07	2.35E-06
			1.13E-07	1.78E-06	2.86E-07	2.03E-07	2.38E-06
			1.15E-07	1.81E-06	2.91E-07	2.07E-07	2.42E-06
			9.81E-08	1.54E-06	2.48E-07	1.76E-07	2.07E-06

			1.42E-08	2.57E-07	3.88E-08	2.72E-08	3.37E-07
			1.40E-08	2.53E-07	3.83E-08	2.68E-08	3.33E-07
			1.39E-08	2.51E-07	3.79E-08	2.66E-08	3.29E-07
			1.38E-08	2.49E-07	3.76E-08	2.64E-08	3.27E-07
			1.37E-08	2.48E-07	3.74E-08	2.62E-08	3.25E-07
			1.37E-08	2.47E-07	3.73E-08	2.62E-08	3.24E-07
			1.37E-08	2.47E-07	3.74E-08	2.62E-08	3.25E-07
			1.37E-08	2.49E-07	3.75E-08	2.63E-08	3.26E-07
			1.38E-08	2.50E-07	3.77E-08	2.64E-08	3.28E-07
			1.39E-08	2.51E-07	3.79E-08	2.66E-08	3.29E-07
			1.40E-08	2.53E-07	3.83E-08	2.68E-08	3.32E-07
			1.40E-08	2.54E-07	3.83E-08	2.68E-08	3.33E-07
			1.41E-08	2.56E-07	3.86E-08	2.71E-08	3.36E-07
			1.52E-08	2.76E-07	4.16E-08	2.92E-08	3.62E-07
			1.53E-08	2.77E-07	4.18E-08	2.93E-08	3.63E-07
			1.54E-08	2.79E-07	4.21E-08	2.95E-08	3.66E-07
			1.56E-08	2.82E-07	4.25E-08	2.98E-08	3.70E-07
			1.57E-08	2.85E-07	4.30E-08	3.01E-08	3.74E-07
			1.60E-08	2.90E-07	4.37E-08	3.06E-08	3.80E-07
			1.62E-08	2.93E-07	4.43E-08	3.10E-08	3.85E-07
			1.65E-08	2.98E-07	4.50E-08	3.15E-08	3.91E-07
			1.68E-08	3.03E-07	4.58E-08	3.21E-08	3.98E-07
			1.70E-08	3.08E-07	4.65E-08	3.26E-08	4.04E-07
			1.72E-08	3.11E-07	4.69E-08	3.29E-08	4.08E-07
			1.73E-08	3.13E-07	4.73E-08	3.32E-08	4.11E-07
			1.76E-08	3.19E-07	4.82E-08	3.38E-08	4.18E-07
			1.79E-08	3.23E-07	4.88E-08	3.42E-08	4.24E-07
			1.82E-08	3.30E-07	4.98E-08	3.49E-08	4.32E-07
			1.84E-08	3.34E-07	5.04E-08	3.53E-08	4.38E-07
			1.88E-08	3.39E-07	5.12E-08	3.59E-08	4.45E-07
			1.91E-08	3.45E-07	5.22E-08	3.66E-08	4.53E-07
			1.94E-08	3.51E-07	5.29E-08	3.71E-08	4.60E-07
			1.99E-08	3.60E-07	5.44E-08	3.81E-08	4.73E-07
			2.02E-08	3.66E-07	5.52E-08	3.87E-08	4.80E-07
			2.06E-08	3.73E-07	5.63E-08	3.94E-08	4.89E-07
			2.11

			UnMitigated				T2				T2L3				T4			
			5.30E-04	9.03E-03	6.12E-03	4.35E-03	5.30E-04	9.03E-03	6.12E-03	4.35E-03	8.06E-05	1.58E-03	1.01E-03	7.05E-04	4.38E-05	9.92E-04	4.80E-04	3.48E-04
			Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4
1	259377	4084950	2.44E-04	4.16E-03	2.82E-03	2.01E-03	2.44E-04	4.16E-03	2.82E-03	2.01E-03	3.71E-05	7.27E-04	4.63E-04	3.25E-04	2.02E-05	4.57E-04	2.21E-04	1.61E-04
2	259371.2	4084989	1.99E-04	3.39E-03	2.30E-03	1.63E-03	1.99E-04	3.39E-03	2.30E-03	1.63E-03	3.02E-05	5.92E-04	3.77E-04	2.64E-04	1.64E-05	3.72E-04	1.80E-04	1.31E-04
3	259384.6	4084988	1.84E-04	3.14E-03	2.13E-03	1.51E-03	1.84E-04	3.14E-03	2.13E-03	1.51E-03	2.80E-05	5.48E-04	3.49E-04	2.45E-04	1.52E-05	3.44E-04	1.66E-04	1.21E-04
4	259428.8	4085011	1.05E-04	1.80E-03	1.22E-03	8.66E-04	1.05E-04	1.80E-03	1.22E-03	8.66E-04	1.60E-05	3.14E-04	2.00E-04	1.40E-04	8.70E-06	1.97E-04	9.54E-05	6.93E-05
5	259437.1	4085008	1.02E-04	1.74E-03	1.18E-03	8.36E-04	1.02E-04	1.74E-03	1.18E-03	8.36E-04	1.55E-05	3.03E-04	1.93E-04	1.35E-04	8.41E-06	1.91E-04	9.21E-05	6.69E-05
6	259446.3	4085008	9.48E-05	1.62E-03	1.10E-03	7.79E-04	9.48E-05	1.62E-03	1.10E-03	7.79E-04	1.44E-05	2.82E-04	1.80E-04	1.26E-04	7.83E-06	1.77E-04	8.58E-05	6.23E-05
7	259476.1	4085021	6.89E-05	1.17E-03	7.96E-04	5.66E-04	6.89E-05	1.17E-03	7.96E-04	5.66E-04	1.05E-05	2.05E-04	1.31E-04	9.16E-05	5.69E-06	1.29E-04	6.24E-05	4.53E-05
8	259485.2	4085022	6.52E-05	1.11E-03	7.54E-04	5.36E-04	6.52E-05	1.11E-03	7.54E-04	5.36E-04	9.92E-06	1.94E-04	1.24E-04	8.68E-05	5.39E-06	1.22E-04	5.91E-05	4.29E-05
9	259493.1	4085022	6.27E-05	1.07E-03	7.24E-04	5.15E-04	6.27E-05	1.07E-03	7.24E-04	5.15E-04	9.53E-06	1.87E-04	1.19E-04	8.33E-05	5.17E-06	1.17E-04	5.67E-05	4.12E-05
10	259501.9	4085022	6.00E-05	1.02E-03	6.94E-04	4.93E-04	6.00E-05	1.02E-03	6.94E-04	4.93E-04	9.13E-06	1.79E-04	1.14E-04	7.98E-05	4.96E-06	1.12E-04	5.43E-05	3.95E-05
11	259496.2	4084979	8.43E-05	1.44E-03	9.74E-04	6.92E-04	8.43E-05	1.44E-03	9.74E-04	6.92E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.96E-06	1.58E-04	7.63E-05	5.54E-05
12	259496.6	4084971	8.85E-05	1.51E-03	1.02E-03	7.27E-04	8.85E-05	1.51E-03	1.02E-03	7.27E-04	1.35E-05	2.64E-04	1.68E-04	1.18E-04	7.31E-06	1.66E-04	8.01E-05	5.82E-05
13	259543.5	4085024	4.91E-05	8.38E-04	5.68E-04	4.04E-04	4.91E-05	8.38E-04	5.68E-04	4.04E-04	7.47E-06	1.46E-04	9.33E-05	6.54E-05	4.06E-06	9.20E-05	4.45E-05	3.23E-05
14	259542.6	4085017	5.16E-05	8.80E-04	5.97E-04	4.24E-04	5.16E-05	8.80E-04	5.97E-04	4.24E-04	7.85E-06	1.54E-04	9.79E-05	6.86E-05	4.26E-06	9.66E-05	4.67E-05	3.39E-05
15	259548.7	4085015	5.09E-05	8.67E-04	5.88E-04	4.18E-04	5.09E-05	8.67E-04	5.88E-04	4.18E-04	7.73E-06	1.51E-04	9.65E-05	6.76E-05	4.20E-06	9.52E-05	4.60E-05	3.34E-05
16	259557.9	4085015	4.87E-05	8.30E-04	5.63E-04	4.00E-04	4.87E-05	8.30E-04	5.63E-04	4.00E-04	7.41E-06	1.45E-04	9.24E-05	6.48E-05	4.02E-06	9.12E-05	4.41E-05	3.20E-05
17	259562.7	4085017	4.72E-05	8.04E-04	5.45E-04	3.88E-04	4.72E-05	8.04E-04	5.45E-04	3.88E-04	7.17E-06	1.41E-04	8.95E-05	6.28E-05	3.90E-06	8.83E-05	4.27E-05	3.10E-05
18	259563.6	4085008	4.92E-05	8.40E-04	5.69E-04	4.05E-04	4.92E-05	8.40E-04	5.69E-04	4.05E-04	7.49E-06	1.47E-04	9.34E-05	6.55E-05	4.07E-06	9.22E-05	4.46E-05	3.24E-05
19	259564	4085000	5.11E-05	8.72E-04	5.91E-04	4.20E-04	5.11E-05	8.72E-04	5.91E-04	4.20E-04	7.77E-06	1.52E-04	9.70E-05	6.80E-05	4.22E-06	9.57E-05	4.63E-05	3.36E-05
20	259545.6	4084996	5.77E-05	9.83E-04	6.67E-04	4.74E-04	5.77E-05	9.83E-04	6.67E-04	4.74E-04	8.77E-06	1.72E-04	1.09E-04	7.67E-05	4.76E-06	1.08E-04	5.22E-05	3.79E-05
21	259643	4085008	3.77E-05	6.42E-04	4.35E-04	3.09E-04	3.77E-05	6.42E-04	4.35E-04	3.09E-04	5.73E-06	1.12E-04	7.15E-05	5.01E-05	3.11E-06	7.05E-05	3.41E-05	2.48E-05
22	259643	4085001	3.87E-05	6.60E-04	4.47E-04	3.18E-04	3.87E-05	6.60E-04	4.47E-04	3.18E-04	5.88E-06	1.15E-04	7.34E-05	5.15E-05	3.20E-06	7.24E-05	3.50E-05	2.54E-05
23	259650.8	4085004	3.74E-05	6.37E-04	4.32E-04	3.07E-04	3.74E-05	6.37E-04	4.32E-04	3.07E-04	5.69E-06	1.11E-04	7.09E-05	4.97E-05	3.09E-06	7.00E-05	3.38E-05	2.46E-05
24	259657.9	4085009	3.60E-05	6.14E-04	4.16E-04	2.96E-04	3.60E-05	6.14E-04	4.16E-04	2.96E-04	5.48E-06	1.07E-04	6.83E-05	4.79E-05	2.97E-06	6.74E-05	3.26E-05	2.37E-05
25	259657.9	4085004	3.67E-05	6.26E-04	4.24E-04	3.02E-04	3.67E-05	6.26E-04	4.24E-04	3.02E-04	5.58E-06	1.09E-04	6.97E-05	4.88E-05	3.03E-06	6.87E-05	3.32E-05	2.41E-05
26	259657.2	4084998	3.77E-05	6.43E-04	4.36E-04	3.10E-04	3.77E-05	6.43E-04	4.36E-04	3.10E-04	5.73E-06	1.12E-04	7.15E-05	5.01E-05	3.11E-06	7.06E-05	3.41E-05	2.48E-05
27	259664.2	4085009	3.55E-05	6.04E-04	4.10E-04	2.91E-04	3.55E-05	6.04E-04	4.10E-04	2.91E-04	5.39E-06	1.06E-04	6.73E-05	4.72E-05	2.93E-06	6.64E-05	3.21E-05	2.33E-05
28	259664.2	4085000	3.67E-05	6.26E-04	4.24E-04	3.02E-04	3.67E-05	6.26E-04	4.24E-04	3.02E-04	5.58E-06	1.09E-04	6.97E-05	4.88E-05	3.03E-06	6.87E-05	3.32E-05	2.41E-05
29	259669.4	4084999	3.64E-05	6.21E-04	4.21E-04	2.99E-04	3.64E-05	6.21E-04	4.21E-04	2.99E-04	5.53E-06	1.08E-04	6.91E-05	4.84E-05	3.01E-06	6.81E-05	3.29E-05	2.39E-05
30	259670.2	4085006	3.53E-05	6.02E-04	4.08E-04	2.90E-04	3.53E-05	6.02E-04	4.08E-04	2.90E-04	5.37E-06	1.05E-04	6.70E-05	4.70E-05	2.92E-06	6.61E-05	3.20E-05	2.32E-05
31	259670.2	4085016	3.39E-05	5.78E-04	3.92E-04	2.79E-04	3.39E-05	5.78E-04	3.92E-04	2.79E-04	5.16E-06	1.01E-04	6.44E-05	4.51E-05	2.80E-06	6.35E-05	3.07E-05	2.23E-05
32	259674.3	4085013	3.41E-05	5.81E-04	3.94E-04	2.80E-04	3.41E-05	5.81E-04	3.94E-04	2.80E-04	5.18E-06	1.02E-04	6.47E-05	4.53E-05	2.82E-06	6.38E-05	3.09E-05	2.24E-05
33	259712.6	4085017	3.06E-05	5.22E-04	3.54E-04	2.52E-04	3.06E-05	5.22E-04	3.54E-04	2.52E-04	4.66E-06	9.12E-05	5.81E-05	4.07E-05	2.53E-06	5.73E-05	2.77E-05	2.01E-05
34	259712.2	4085011	3.13E-05	5.34E-04	3.62E-04	2.57E-04	3.13E-05	5.34E-04	3.62E-04	2.57E-04	4.76E-06	9.33E-05	5.94E-05	4.17E-05	2.59E-06	5.86E-05	2.84E-05	2.06E-05
35	259712.2	4085008	3.17E-05	5.41E-04	3.67E-04	2.61E-04	3.17E-05	5.41E-04	3.67E-04	2.61E-04	4.83E-06	9.45E-05	6.02E-05	4.22E-05	2.62E-06	5.94E-05	2.87E-05	2.09E-05
36	259718.9	4085012	3.07E-05	5.24E-04	3.55E-04	2.52E-04	3.07E-05	5.24E-04	3.55E-04	2.52E-04	4.67E-06	9.15E-05	5.83E-05	4.09E-05	2.54E-06	5.75E-05	2.78E-05	2.02E-05
37	259726	4085012	3.02E-05	5.15E-04	3.49E-04	2.48E-04	3.02E-05	5.15E-04	3.49E-04	2.48E-04	4.59E-06	8.99E-05	5.73E-05	4.02E-05	2.49E-06	5.65E-05	2.73E-05	1.99E-05
38	259731.2	4085008	3.04E-05	5.18E-04	3.51E-04	2.49E-04	3.04E-05	5.18E-04	3.51E-04	2.49E-04	4.62E-06	9.04E-05	5.76E-05	4.04E-05	2.51E-06	5.68E-05	2.75E-05	2.00E-05
39	259720.4	4085006	3.13E-05	5.34E-04	3.62E-04	2.57E-04	3.13E-05	5.34E-04	3.62E-04	2.57E-04	4.76E-06	9.33E-05	5.94E-05	4.17E-05	2.59E-06	5.86E-05	2.83E-05	2.06E-05
40	259716.3	4084997	3.28E-05	5.59E-04	3.79E-04	2.69E-04	3.28E-05	5.59E-04	3.79E-04	2.69E-04	4.99E-06	9.77E-05	6.22E-05	4.36E-05	2.71E-06	6.14E-05	2.97E-05	2.16E-05
41	259708.5	4084997	3.35E-05	5.71E-04	3.87E-04	2.75E-04	3.35E-05	5.71E-04	3.87E-04	2.75E-04	5.09E-06	9.97E-05	6.35E-05	4.45E-05	2.76E-06	6.26E-05	3.03E-05	2.20E-05
42	259702.5	4084997	3.40E-05	5.79E-04	3.93E-04	2.79E-04	3.40E-05	5.79E-04	3.93E-04	2.79E-04	5.17E-06	1.01E-04	6.45E-05	4.52E-05	2.81E-06	6.36E-05	3.07E-05	2.23E-05
43	259701.1	4085003	3.32E-05	5.67E-04	3.84E-04	2.73E-04	3.32E-05	5.67E-04	3.84E-04	2.73E-04	5.06E-06	9.90E-05	6.31E-05	4.42E-05	2.75E-06	6.22E-05	3.01E-05	2.19E-05
44	259699.2	4084996	3.43E-05	5.85E-04	3.97E-04	2.82E-04	3.43E-05	5.85E-04	3.97E-04	2.82E-04	5.22E-06	1.02E-04	6.51E-05	4.56E-05	2.83E-06	6.42E-05	3.11E-05	2.26E-05
45	259700.3	4084992	3.48E-05	5.93E-04	4.02E-04	2.86E-04	3.48E-05	5.93E-04	4.02E-04	2.86E-04	5.29E-06	1.04E-04	6.60E-05	4.63E-05	2.87E-06	6.51E-05	3.15E-05	2.29E-05
46	259709.6	4084993	3.39E-05	5.78E-04	3.92E-04	2.78E-04	3.39E-05	5.78E-04	3.92E-04	2.78E-04	5.15E-06	1.01E-04	6.43E-05	4.51E-05	2.80E-06	6.34E-05	3.07E-05	2.23E-05
47	260029.5	4085370	8.11E-06	1.38E-04	9.37E-05	6.66E-05	8.11E-06	1.38E-04	9.37E-05	6.66E-05	1.23E-06	2.41E-05	1.54E-05	1.08E-05	6.70E-07	1.52E-05	7.34E-06	5.33E-06
48	260027.2	4085384	7.90E-06	1.35E-04	9.14E-05	6.49E-05	7.90E-06	1.35E-04	9.14E-05	6.49E-05	1.20E-06	2.35E-05	1.50E-05	1.05E-05	6.53E-07	1.48E-05	7.15E-06	5.20E-06
49	260022.5	4085432	7.26E-06	1.24E-04	8.39E-05	5.96E-05	7.26E-06	1.24E-04	8.39E-05	5.96E-05	1.10E-06	2.16E-05	1.38E-05	9.65E-06	5.99E-07	1.36E-05	6.57E-06	4.77E-06
50	260153.7	4085201	1.06E-05	1.81E-04	1.23E-04	8.72E-05	1.06E-05	1.81E-04	1.23E-04	8.72E-05	1.62E-06	3.16E-05	2.02E-05	1.41E-05	8.77E-07	1.99E-05	9.61E-06	6.98E-06
51	260167.6	4085201	1.05E-05	1.78E-04	1.21E-04	8.60E-05	1.05E-05	1.78E-04	1.21E-04	8.60E-05	1.59E-06	3.12E-05	1.99E-05	1.39E-05	8.64E-07	1.96E-05	9.47E-06	6.88E-06
52	260160.6	4085187	1.09E-05	1.85E-04	1.26E-04	8.92E-05	1.09E-05	1.85E-04	1.26E-04	8.92E-05	1.65E-06	3.23E-05	2.06E-05	1.44E-05	8.97E-07	2.03E-05	9.83E-06	7.14E-06
53	260175.7	4085139	1.17E-05	1.99E-04	1.35E-04	9.61E-05	1.17E-05	1.99E-04	1.35E-04	9.61E-05	1.78E-06	3.48E-05	2.22E-05	1.56E-05	9.66E-07	2.19E-05	1.06E-05	7.69E-06
54	260037.6	4085021	1.79E-05	3.06E-04	2.07E-04	1.47E-04	1.79E-05	3.06E-04	2.07E-04	1.47E-04	2.73E-06	5.34E-05	3.40E-05	2.38E-05	1.48E-06	3.35E-05	1.62E-05	1.18E-05
55	260026	4085021	1.81E-05	3.09E-04	2.10E-04	1.49E-04	1.81E-05	3.09E-04	2.10E-04	1.49E-04	2.76E-06	5.40E-05	3.44E-05	2.41E-05	1.50E-06	3.39E-05	1.64E-05	1.19E-05
56	260017.9	4085008	1.89E-05	3.23E-04	2.19E-04	1.56E-04	1.89E-05	3.23E-04	2.19E-04	1.56E-04	2.88E-06	5.64E-05	3.59E-05	2.52E-05	1.56E-06	3.54E-05	1.71E-05	1.25E-05
57	260089.8	4084990	1.84E-05	3.13E-04	2.12E-04	1.51E-04	1.84E-05	3.13E-04	2.12E-04	1.51E-04	2.79E-06	5.47E-05	3.48E-05	2.44E-05	1.52E-06	3.43E-05	1.66E-05	1.21E-05
58	260103.8	4084992	1.80E-05	3.07E-04	2.08E-04	1.48E-04	1.80E-05	3.07E-04	2.08E-04	1.48E-04	2.73E-06	5.35E-05	3.41E-05	2.39E-05	1.48E-06	3.36E-05	1.63E-05	1.18E-05
59	260018.2	4084858	2.88E-05	4.91E-04	3.33E-04	2.37E-04	2.88E-05	4.91E-04	3.33E-04	2.37E-04	4.38E-06	8.58E-05	5.47E-05	3.83E-05	2.38E-06	5.39E-05	2.61E-05	1.89E-05
60	260023.2	4084867	2.79E-05	4.75E-04	3.22E-04	2.29E-04	2.79E-05	4.75E-04	3.22E-04	2.29E-04	4.24E-06	8.30E-05	5.29E-05	3.71E-05	2.30E-06	5.22E-05	2.52E-05	1.83E-05
61	260029.6	4084868	2.75E-05	4.69E-04	3.18E-04	2.26E-04	2.75E-05	4.69E-04	3.18E-04	2.26E-04	4.18E-06	8.19E-05	5.22E-05	3.66E-05	2.27E-06	5.15E-05	2.49E-05	1.81E-05
62	260072.4	4084868	2.57E-05	4.39E-04	2.98E-04	2.11E-04	2.57E-05	4.39E-04	2.98E-04	2.11E-04	3.91E-06	7.66E-05	4.88E-05	3.42E-05	2.13E-06	4.82E-05	2.33E-05	1.69E-05
63	260185	4085033	1.47E-05	2.51E-04	1.70E-04	1.21E-04	1.47E-05	2.51E-04	1.70E-04	1.21E-04	2.24E-06	4.38E-05	2.79E-05	1.96E-05	1.21E-06	2.75E-05	1.33E-05	9.67E-06
64	260185	4085019	1.52E-05	2.59E-04	1.75E-04	1.25E-04	1.52E-05	2.59E-04	1.75E-04	1.25E-04	2.31E-06	4.52E-05	2.88E-05	2.02E-05	1.25E-06	2.84E-05	1.37E-05	9.97E-06
65	260182.9	4085009	1.55E-05	2.65E-04	1.80E-04	1.28E-04	1.55E-05	2.65E-04	1.80E-04	1.28E-04	2.36E-06	4.63E-05	2.95E-05	2.07E-05	1.28E-06	2.91E-05	1.41E-05	1.02E-05
66	260169.3	4085002	1.60E-05	2.73E-04	1.85E-04	1.32E-04	1.60E-05	2.73E-04	1.85E-04	1.32E-04	2.44E-06	4.77E-05	3.04E-05	2.13E-05	1.32E-06	3.00E-05	1.45E-05	1.05E-05
67	260222.8	4084875	2.02E-05	3.44E-04	2.33E-04	1.66E-04	2.02E-05	3.44E-04	2.33E-04	1.66E-04	3.07E-06	6.01E-05	3.83E-05	2.69E-05	1.67E-06	3.78E-05	1.83E-05	1.33E-05
68	260222.8	4084889	1.96E-05	3.34E-04	2.27E-04	1.61E-04	1.96E-05	3.34E-04	2.27E-04	1.61E-04	2.98E-06	5.84E-05	3.72E-05	2.61E-05	1.62E-06	3.67E-05	1.78E-05	1.29E-05
69	260230.6	4084894	1.92E-05	3.28E-04	2.22E-04	1.58E-04	1.92E-05	3.28E-04	2.22E-04	1.58E-04	2.92E-06	5.72E-05	3.65E-05	2.56E-05	1.59E-06	3.60E-05	1.74E-05	1.26E-05
70	260241.3	4084896	1.89E-05	3.22E-04	2.18E-04	1.55E-04	1.89E-05	3.22E-04	2.18E-04	1.55E-04	2.87E-06	5.62E-05	3.58E-05	2.51E-05	1.56E-06	3.53E-05	1.71E-05	1.24E-05
71	260010.8	4084736	4.03E-05	6.87E-04	4.66E-04	3.31E-04	4.03E-05	6.87E-04	4.66E-04	3.31E-04	6.13E-06	1.20E-04	7.65E-05	5.36E-05	3.33E-06	7.55E-05	3.65E-05	2.65E-05
72	260020	4084739	3.93E-05	6.69E-04	4.54E-04	3.23E-04	3.93E-05	6.69E-04	4.54E-04	3.23E-04	5.97E-06	1.17E-04	7.45E-05	5.22E-05	3.24E-06	7.35E-05	3.55E-05	2.58E-05
73	260029.2	4084742	3.82E-05	6.51E-04	4.41E-04	3.14E-04	3.82E-05	6.51E-04	4.41E-04	3.14E-04	5.81E-06	1.14E-04	7.25E-05	5.08E-05	3.15E-06	7.15E-05	3.46E-05	2.51E-05
74	260083.7	4084694	3.83E-05	6.52E-04	4.42E-04	3.14E-04	3.83E-05	6.52E-04	4.42E-04	3.14E-04	5.82E-06	1.14E-04	7.26E-05	5.09E-05	3.16E-06	7.16E-05	3.46E-05	2.51E-05
75	260095.4	4084694	3.74E-05	6.38E-04	4.33E-04	3.08E-04	3.74E-05	6.38E-04	4.33E-04	3.08E-04	5.69E-06	1.11E-04	7.10E-05	4.98E-05	3.09E-06	7.01E-05	3.39E-05	2.46E-05
76	260086.7	4084739	3.43E-05	5.85E-04	3.96E-04	2.82E-04	3.43E-05	5.85E-04	3.96E-04	2.82E-04	5.21E-06	1.02E-04	6.51E-05	4.56E-05	2.83E-06	6.42E-05	3.10E-05	2.25E-05
77	260093.1	4084735	3.43E-05	5.84E-04	3.96E-04	2.81E-04	3.43E-05	5.84E-04	3.96E-04	2.81E-04	5.21E-06	1.02E-04	6.50E-05	4.56E-05	2.83E-06	6.41E-05	3.10E-05	2.25E-05
78	260105.1	4084742	3.30E-05	5.62E-04	3.81E-04	2.71E-04	3.30E-05	5.62E-04	3.81E-04	2.71E-04	5.01E-06	9.81E-05	6.25E-05	4.38E-05	2.72E-06	6.17E-05	2.98E-05	2.17E-05
79	260084.4	4084452	6.27E-05	1.07E-03	7.25E-04	5.15E-04	6.27E-05	1.07E-03	7.25E-04	5.15E-04	9.54E-06	1.87E-04	1.19E-04	8.34E-05	5.18E-06	1.17E-04	5.68E-05	4.12E-05
80	260086.4	4084437	6.41E-05	1.09E-03	7.41E-04	5.26E-04	6.41E-05	1.09E-03	7.41E-04	5.26E-04	9.74E-06	1.91E-04	1.22E-04	8.52E-05	5.29E-06	1.20E-04	5.80E-05	4.21E-05
81	260083.4	4084417	6.67E-05	1.14E-03	7.71E-04	5.48E-04	6.67E-05	1.14E-03	7.71E-04	5.48E-04	1.01E-05	1.99E-04	1.27E-04	8.87E-05	5.51E-06	1.25E-04	6.04E-05	4.38E-05
82	260159.3	4084450	5.36E-05	9.14E-04	6.20E-04	4.40E-04	5.36E-05	9.14E-04	6.20E-04	4.40E-04	8.15E-06	1.60E-04	1.02E-04	7.13E-05	4.43E-06	1.00E-04	4.85E-05	3.52E-05
83	260176.1	4084448	5.20E-05	8.86E-04	6.01E-04	4.27E-04	5.20E-05	8.86E-04	6.01E-04	4.27E-04	7.91E-06	1.55E-04	9.86E-05	6.91E-05	4.29E-06	9.73E-05	4.70E-05	3.42E-05
84	260192.9	4084448	5.03E-05	8.57E-04	5.81E-04	4.13E-04	5.03E-05	8.57E-04	5.81E-04	4.13E-04	7.64E-06	1.50E-04	9.54E-05	6.68E-05	4.15E-06	9.41E-05	4.55E-05	3.30E-05
85	260205.7	4084450	4.88E-05	8.32E-04	5.64E-04	4.01E-04	4.88E-05	8.32E-04	5.64E-04	4.01E-04	7.42E-06	1.45E-04	9.26E-05	6.49E-05	4.03E-06	9.14E-05	4.42E-05	3.21E-05
86	260223.4	4084451	4.71E-05	8.02E-04	5.44E-04	3.87E-04	4.71E-05	8.02E-04	5.44E-04	3.87E-04	7.16E-06	1.40E-04	8.93E-05	6.26E-05	3.89E-06	8.81E-05	4.26E-05	3.09E-05
87	260168.2	4084350	6.23E-05	1.06E-03	7.20E-04	5.11E-04	6.23E-05	1.06E-03	7.20E-04	5.11E-04	9.47E-06	1.85E-04	1.18E-04	8.28E-05	5.14E-06	1.17E-04	5.63E-05	4.09E-05
88	260155.4	4084355	6.34E-05	1.08E-03	7.33E-04	5.21E-04	6.34E-05	1.08E-03	7.33E-04	5.21E-04	9.65E-06	1.89E-04	1.20E-04	8.44E-05	5.24E-06	1.19E-04	5.74E-05	4.17E-05
89	260138.6	4084360	6.52E-05	1.11E-03	7.53E-04	5.35E-04	6.52E-05	1.11E-03	7.53E-04	5.35E-04	9.91E-06	1.94E-04	1.24E-04	8.67E-05	5.38E-06	1.22E-04	5.90E-05	4.29E-05
90	259991	4084328	9.41E-05	1.60E-03	1.09E-03	7.73E-04	9.41E-05	1.60E-03	1.09E-03	7.73E-04	1.43E-05	2.80E-04	1.79E-04	1.25E-04	7.77E-06	1.76E-04	8.52E-05	6.19E-05
91	259999.8	4084326	9.26E-05	1.58E-03	1.07E-03	7.60E-04	9.26E-05	1.58E-03	1.07E-03	7.60E-04	1.41E-05	2.76E-04	1.76E-04	1.23E-04	7.64E-06	1.73E-04	8.38E-05	6.08E-05
92	260006.8	4084322	9.15E-05	1.56E-03	1.06E-03	7.52E-04	9.15E-05	1.56E-03	1.06E-03	7.52E-04	1.39E-05	2.73E-04	1.74E-04	1.22E-04	7.56E-06	1.71E-04	8.28E-05	6.02E-05
93	260016	4084319	9.01E-05	1.54E-03	1.04E-03	7.40E-04	9.01E-05	1.54E-03	1.04E-03	7.40E-04	1.37E-05	2.68E-04	1.71E-04	1.20E-04	7.44E-06	1.69E-04	8.15E-05	5.92E-05
94	260076.3	4084319	7.89E-05	1.34E-03	9.11E-04	6.48E-04	7.89E-05	1.34E-03	9.11E-04	6.48E-04	1.20E-05	2.35E-04	1.50E-04	1.05E-04	6.51E-06	1.48E-04	7.14E-05	5.18E-05
95	260071.5	4084311	8.06E-05	1.37E-03	9.31E-04	6.62E-04	8.06E-05	1.37E-03	9.31E-04	6.62E-04	1.23E-05	2.40E-04	1.53E-04	1.07E-04	6.65E-06	1.51E-04	7.29E-05	5.30E-05
96	260079.8	4084307	7.96E-05	1.36E-03	9.20E-04	6.53E-04	7.96E-05	1.36E-03	9.20E-04	6.53E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.57E-06	1.49E-04

108	260025.1	4084236	9.71E-05	1.66E-03	1.12E-03	7.98E-04	9.71E-05	1.66E-03	1.12E-03	7.98E-04	1.48E-05	2.89E-04	1.84E-04	1.29E-04	8.02E-06	1.82E-04	8.79E-05	6.39E-05
109	260030	4084245	9.52E-05	1.62E-03	1.10E-03	7.82E-04	9.52E-05	1.62E-03	1.10E-03	7.82E-04	1.45E-05	2.84E-04	1.81E-04	1.27E-04	7.86E-06	1.78E-04	8.62E-05	6.26E-05
110	260052.7	4084244	9.09E-05	1.55E-03	1.05E-03	7.46E-04	9.09E-05	1.55E-03	1.05E-03	7.46E-04	1.38E-05	2.71E-04	1.72E-04	1.21E-04	7.50E-06	1.70E-04	8.22E-05	5.97E-05
111	260069.8	4084223	8.97E-05	1.53E-03	1.04E-03	7.36E-04	8.97E-05	1.53E-03	1.04E-03	7.36E-04	1.36E-05	2.67E-04	1.70E-04	1.19E-04	7.40E-06	1.68E-04	8.11E-05	5.89E-05
112	260025.1	4084138	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.75E-06	1.98E-04	9.58E-05	6.96E-05
113	260029.5	4084147	1.04E-04	1.78E-03	1.21E-03	8.56E-04	1.04E-04	1.78E-03	1.21E-03	8.56E-04	1.59E-05	3.10E-04	1.98E-04	1.39E-04	8.61E-06	1.95E-04	9.44E-05	6.85E-05
114	260028.6	4084164	1.03E-04	1.76E-03	1.19E-03	8.47E-04	1.03E-04	1.76E-03	1.19E-03	8.47E-04	1.57E-05	3.07E-04	1.96E-04	1.37E-04	8.51E-06	1.93E-04	9.33E-05	6.77E-05
115	260057.5	4084173	9.64E-05	1.64E-03	1.11E-03	7.92E-04	9.64E-05	1.64E-03	1.11E-03	7.92E-04	1.47E-05	2.87E-04	1.83E-04	1.28E-04	7.96E-06	1.80E-04	8.72E-05	6.34E-05
116	260067.1	4084173	9.45E-05	1.61E-03	1.09E-03	7.76E-04	9.45E-05	1.61E-03	1.09E-03	7.76E-04	1.44E-05	2.81E-04	1.79E-04	1.26E-04	7.81E-06	1.77E-04	8.55E-05	6.21E-05
117	260072.4	4084174	9.35E-05	1.59E-03	1.08E-03	7.68E-04	9.35E-05	1.59E-03	1.08E-03	7.68E-04	1.42E-05	2.78E-04	1.77E-04	1.24E-04	7.72E-06	1.75E-04	8.46E-05	6.15E-05
118	260145	4084232	7.62E-05	1.30E-03	8.81E-04	6.26E-04	7.62E-05	1.30E-03	8.81E-04	6.26E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.30E-06	1.43E-04	6.90E-05	5.01E-05
119	260146.3	4084225	7.66E-05	1.31E-03	8.86E-04	6.30E-04	7.66E-05	1.31E-03	8.86E-04	6.30E-04	1.17E-05	2.28E-04	1.45E-04	1.02E-04	6.33E-06	1.43E-04	6.94E-05	5.04E-05
120	260146.3	4084216	7.74E-05	1.32E-03	8.94E-04	6.36E-04	7.74E-05	1.32E-03	8.94E-04	6.36E-04	1.18E-05	2.30E-04	1.47E-04	1.03E-04	6.39E-06	1.45E-04	7.00E-05	5.09E-05
121	260167.8	4084179	7.71E-05	1.32E-03	8.92E-04	6.34E-04	7.71E-05	1.32E-03	8.92E-04	6.34E-04	1.17E-05	2.30E-04	1.46E-04	1.03E-04	6.37E-06	1.44E-04	6.98E-05	5.07E-05
122	260156.8	4084177	7.90E-05	1.35E-03	9.13E-04	6.49E-04	7.90E-05	1.35E-03	9.13E-04	6.49E-04	1.20E-05	2.35E-04	1.50E-04	1.05E-04	6.52E-06	1.48E-04	7.15E-05	5.19E-05
123	260146.8	4084175	8.06E-05	1.37E-03	9.32E-04	6.62E-04	8.06E-05	1.37E-03	9.32E-04	6.62E-04	1.23E-05	2.40E-04	1.53E-04	1.07E-04	6.66E-06	1.51E-04	7.30E-05	5.30E-05
124	260136.7	4084176	8.21E-05	1.40E-03	9.49E-04	6.75E-04	8.21E-05	1.40E-03	9.49E-04	6.75E-04	1.25E-05	2.45E-04	1.56E-04	1.09E-04	6.78E-06	1.54E-04	7.43E-05	5.40E-05
125	260153.3	4084166	8.03E-05	1.37E-03	9.28E-04	6.59E-04	8.03E-05	1.37E-03	9.28E-04	6.59E-04	1.22E-05	2.39E-04	1.52E-04	1.07E-04	6.63E-06	1.50E-04	7.26E-05	5.28E-05
126	260153.3	4084161	8.07E-05	1.38E-03	9.33E-04	6.63E-04	8.07E-05	1.38E-03	9.33E-04	6.63E-04	1.23E-05	2.40E-04	1.53E-04	1.07E-04	6.66E-06	1.51E-04	7.30E-05	5.30E-05
127	260153.3	4084154	8.12E-05	1.38E-03	9.38E-04	6.67E-04	8.12E-05	1.38E-03	9.38E-04	6.67E-04	1.23E-05	2.42E-04	1.54E-04	1.08E-04	6.70E-06	1.52E-04	7.35E-05	5.34E-05
128	260163.8	4084147	8.01E-05	1.37E-03	9.26E-04	6.58E-04	8.01E-05	1.37E-03	9.26E-04	6.58E-04	1.22E-05	2.39E-04	1.52E-04	1.07E-04	6.62E-06	1.50E-04	7.25E-05	5.27E-05
129	260141.1	4084153	8.32E-05	1.42E-03	9.61E-04	6.83E-04	8.32E-05	1.42E-03	9.61E-04	6.83E-04	1.26E-05	2.48E-04	1.58E-04	1.11E-04	6.87E-06	1.56E-04	7.53E-05	5.47E-05
130	260141.1	4084123	8.54E-05	1.46E-03	9.87E-04	7.01E-04	8.54E-05	1.46E-03	9.87E-04	7.01E-04	1.30E-05	2.54E-04	1.62E-04	1.14E-04	7.05E-06	1.60E-04	7.73E-05	5.61E-05
131	260141.1	4084102	8.68E-05	1.48E-03	1.00E-03	7.13E-04	8.68E-05	1.48E-03	1.00E-03	7.13E-04	1.32E-05	2.59E-04	1.65E-04	1.15E-04	7.17E-06	1.62E-04	7.86E-05	5.71E-05
132	260141.1	4084094	8.73E-05	1.49E-03	1.01E-03	7.17E-04	8.73E-05	1.49E-03	1.01E-03	7.17E-04	1.33E-05	2.60E-04	1.66E-04	1.16E-04	7.21E-06	1.63E-04	7.90E-05	5.74E-05
133	260138.9	4084086	8.82E-05	1.50E-03	1.02E-03	7.24E-04	8.82E-05	1.50E-03	1.02E-03	7.24E-04	1.34E-05	2.63E-04	1.67E-04	1.17E-04	7.28E-06	1.65E-04	7.98E-05	5.80E-05
134	260122.3	4084085	9.10E-05	1.55E-03	1.05E-03	7.48E-04	9.10E-05	1.55E-03	1.05E-03	7.48E-04	1.38E-05	2.71E-04	1.73E-04	1.21E-04	7.52E-06	1.70E-04	8.24E-05	5.98E-05
135	260024.1	4084081	1.10E-04	1.88E-03	1.27E-03	9.04E-04	1.10E-04	1.88E-03	1.27E-03	9.04E-04	1.67E-05	3.28E-04	2.09E-04	1.46E-04	9.09E-06	2.06E-04	9.96E-05	7.24E-05
136	260017.4	4084069	1.12E-04	1.91E-03	1.30E-03	9.21E-04	1.12E-04	1.91E-03	1.30E-03	9.21E-04	1.71E-05	3.34E-04	2.13E-04	1.49E-04	9.26E-06	2.10E-04	1.02E-04	7.37E-05
137	260017.4	4084059	1.13E-04	1.92E-03	1.30E-03	9.26E-04	1.13E-04	1.92E-03	1.30E-03	9.26E-04	1.71E-05	3.36E-04	2.14E-04	1.50E-04	9.31E-06	2.11E-04	1.02E-04	7.41E-05
138	260015.6	4084049	1.14E-04	1.94E-03	1.31E-03	9.34E-04	1.14E-04	1.94E-03	1.31E-03	9.34E-04	1.73E-05	3.38E-04	2.16E-04	1.51E-04	9.39E-06	2.13E-04	1.03E-04	7.47E-05
139	260061	4084036	1.05E-04	1.79E-03	1.21E-03	8.62E-04	1.05E-04	1.79E-03	1.21E-03	8.62E-04	1.60E-05	3.13E-04	1.99E-04	1.40E-04	8.67E-06	1.96E-04	9.50E-05	6.90E-05
140	259994.4	4083982	1.21E-04	2.06E-03	1.39E-03	9.91E-04	1.21E-04	2.06E-03	1.39E-03	9.91E-04	1.83E-05	3.59E-04	2.29E-04	1.60E-04	9.96E-06	2.26E-04	1.09E-04	7.93E-05
141	259985.9	4083982	1.22E-04	2.09E-03	1.42E-03	1.01E-03	1.22E-04	2.09E-03	1.42E-03	1.01E-03	1.86E-05	3.65E-04	2.32E-04	1.63E-04	1.01E-05	2.29E-04	1.11E-04	8.05E-05
142	259978.1	4083982	1.24E-04	2.12E-03	1.43E-03	1.02E-03	1.24E-04	2.12E-03	1.43E-03	1.02E-03	1.89E-05	3.70E-04	2.36E-04	1.65E-04	1.03E-05	2.32E-04	1.12E-04	8.16E-05
143	260164.5	4084059	8.57E-05	1.46E-03	9.91E-04	7.04E-04	8.57E-05	1.46E-03	9.91E-04	7.04E-04	1.30E-05	2.55E-04	1.63E-04	1.14E-04	7.08E-06	1.60E-04	7.76E-05	5.64E-05
144	260162.7	4084049	8.65E-05	1.48E-03	1.00E-03	7.11E-04	8.65E-05	1.48E-03	1.00E-03	7.11E-04	1.32E-05	2.58E-04	1.64E-04	1.15E-04	7.15E-06	1.62E-04	7.83E-05	5.69E-05
145	260161.5	4084040	8.73E-05	1.49E-03	1.01E-03	7.17E-04	8.73E-05	1.49E-03	1.01E-03	7.17E-04	1.33E-05	2.60E-04	1.66E-04	1.16E-04	7.21E-06	1.63E-04	7.90E-05	5.74E-05
146	260162.1	4084024	8.80E-05	1.50E-03	1.02E-03	7.22E-04	8.80E-05	1.50E-03	1.02E-03	7.22E-04	1.34E-05	2.62E-04	1.67E-04	1.17E-04	7.26E-06	1.65E-04	7.96E-05	5.78E-05
147	260153	4084026	8.93E-05	1.52E-03	1.03E-03	7.34E-04	8.93E-05	1.52E-03	1.03E-03	7.34E-04	1.36E-05	2.66E-04	1.69E-04	1.19E-04	7.38E-06	1.67E-04	8.08E-05	5.87E-05
148	260097.3	4084026	9.87E-05	1.68E-03	1.14E-03	8.11E-04	9.87E-05	1.68E-03	1.14E-03	8.11E-04	1.50E-05	2.94E-04	1.87E-04	1.31E-04	8.15E-06	1.85E-04	8.93E-05	6.49E-05
149	260142.7	4083979	9.31E-05	1.59E-03	1.08E-03	7.65E-04	9.31E-05	1.59E-03	1.08E-03	7.65E-04	1.42E-05	2.77E-04	1.77E-04	1.24E-04	7.69E-06	1.74E-04	8.42E-05	6.12E-05
150	260136.7	4083984	9.39E-05	1.60E-03	1.08E-03	7.71E-04	9.39E-05	1.60E-03	1.08E-03	7.71E-04	1.43E-05	2.80E-04	1.78E-04	1.25E-04	7.75E-06	1.76E-04	8.49E-05	6.17E-05
151	260127	4083983	9.55E-05	1.63E-03	1.10E-03	7.84E-04	9.55E-05	1.63E-03	1.10E-03	7.84E-04	1.45E-05	2.84E-04	1.81E-04	1.27E-04	7.88E-06	1.79E-04	8.64E-05	6.28E-05
152	260116.7	4083984	9.72E-05	1.66E-03	1.12E-03	7.98E-04	9.72E-05	1.66E-03	1.12E-03	7.98E-04	1.48E-05	2.89E-04	1.84E-04	1.29E-04	8.02E-06	1.82E-04	8.79E-05	6.39E-05
153	260109.4	4083984	9.84E-05	1.68E-03	1.14E-03	8.08E-04	9.84E-05	1.68E-03	1.14E-03	8.08E-04	1.50E-05	2.93E-04	1.87E-04	1.31E-04	8.13E-06	1.84E-04	8.90E-05	6.47E-05
154	260113.7	4083900	1.00E-04	1.70E-03	1.16E-03	8.21E-04	1.00E-04	1.70E-03	1.16E-03	8.21E-04	1.52E-05	2.98E-04	1.90E-04	1.33E-04	8.26E-06	1.87E-04	9.05E-05	6.57E-05
155	260120.9	4083901	9.88E-05	1.68E-03	1.14E-03	8.12E-04	9.88E-05	1.68E-03	1.14E-03	8.12E-04	1.50E-05	2.94E-04	1.88E-04	1.31E-04	8.16E-06	1.85E-04	8.94E-05	6.50E-05
156	260131.2	4083900	9.72E-05	1.66E-03	1.12E-03	7.99E-04	9.72E-05	1.66E-03	1.12E-03	7.99E-04	1.48E-05	2.90E-04	1.84E-04	1.29E-04	8.03E-06	1.82E-04	8.80E-05	6.39E-05
157	260041	4083891	1.12E-04	1.92E-03	1.30E-03	9.23E-04	1.12E-04	1.92E-03	1.30E-03	9.23E-04	1.71E-05	3.35E-04	2.13E-04	1.49E-04	9.28E-06	2.10E-04	1.02E-04	7.39E-05
158	260031.3	4083890	1.14E-04	1.94E-03	1.32E-03	9.37E-04	1.14E-04	1.94E-03	1.32E-03	9.37E-04	1.73E-05	3.40E-04	2.16E-04	1.52E-04	9.42E-06	2.13E-04	1.03E-04	7.50E-05
159	260024.7	4083891	1.15E-04	1.97E-03	1.33E-03	9.47E-04	1.15E-04	1.97E-03	1.33E-03	9.47E-04	1.75E-05	3.43E-04	2.19E-04	1.53E-04	9.52E-06	2.16E-04	1.04E-04	7.58E-05
160	260014.4	4083892	1.17E-04	2.00E-03	1.35E-03	9.62E-04	1.17E-04	2.00E-03	1.35E-03	9.62E-04	1.78E-05	3.49E-04	2.22E-04	1.56E-04	9.68E-06	2.19E-04	1.06E-04	7.70E-05
161	260008.3	4083897	1.18E-04	2.02E-03	1.37E-03	9.72E-04	1.18E-04	2.02E-03	1.37E-03	9.72E-04	1.80E-05	3.52E-04	2.25E-04	1.57E-04	9.77E-06	2.21E-04	1.07E-04	7.78E-05
162	260190.6	4083897	8.85E-05	1.51E-03	1.02E-03	7.27E-04	8.85E-05	1.51E-03	1.02E-03	7.27E-04	1.35E-05	2.64E-04	1.68E-04	1.18E-04	7.31E-06	1.66E-04	8.01E-05	5.82E-05
163	260203.3	4083898	8.67E-05	1.48E-03	1.00E-03	7.12E-04	8.67E-05	1.48E-03	1.00E-03	7.12E-04	1.32E-05	2.58E-04	1.65E-04	1.15E-04	7.16E-06	1.62E-04	7.85E-05	5.70E-05
164	260220.2	4083897	8.45E-05	1.44E-03	9.76E-04	6.94E-04	8.45E-05	1.44E-03	9.76E-04	6.94E-04	1.28E-05	2.52E-04	1.60E-04	1.12E-04	6.98E-06	1.58E-04	7.64E-05	5.55E-05
165	259277.6	4083982	3.54E-04	6.03E-03	4.09E-03	2.91E-03	3.54E-04	6.03E-03	4.09E-03	2.91E-03	5.38E-05	1.05E-03	6.72E-04	4.71E-04	2.92E-05	6.62E-04	3.20E-04	2.33E-04
166	259263.3	4083976	3.50E-04	5.97E-03	4.04E-03	2.87E-03	3.50E-04	5.97E-03	4.04E-03	2.87E-03	5.32E-05	1.04E-03	6.64E-04	4.65E-04	2.89E-05	6.55E-04	3.17E-04	2.30E-04
167	259246.6	4083968	3.43E-04	5.84E-03	3.96E-03	2.81E-03	3.43E-04	5.84E-03	3.96E-03	2.81E-03	5.21E-05	1.02E-03	6.50E-04	4.56E-04	2.83E-05	6.41E-04	3.10E-04	2.25E-04
168	259235.7	4083961	3.34E-04	5.69E-03	3.86E-03	2.74E-03	3.34E-04	5.69E-03	3.86E-03	2.74E-03	5.07E-05	9.94E-04	6.33E-04	4.44E-04	2.76E-05	6.24E-04	3.02E-04	2.19E-04
169	259224	4083951	3.19E-04	5.43E-03	3.68E-03	2.62E-03	3.19E-04	5.43E-03	3.68E-03	2.62E-03	4.85E-05	9.49E-04	6.05E-04	4.24E-04	2.63E-05	5.96E-04	2.88E-04	2.10E-04
170	259213.9	4083947	3.11E-04	5.30E-03	3.59E-03	2.55E-03	3.11E-04	5.30E-03	3.59E-03	2.55E-03	4.73E-05	9.26E-04	5.90E-04	4.14E-04	2.57E-05	5.82E-04	2.81E-04	2.04E-04
171	259200.5	4083937	2.94E-04	5.01E-03	3.39E-03	2.41E-03	2.94E-04	5.01E-03	3.39E-03	2.41E-03	4.46E-05	8.74E-04	5.57E-04	3.90E-04	2.42E-05	5.49E-04	2.66E-04	1.93E-04
172	259183.7	4083929	2.76E-04	4.70E-03	3.19E-03	2.27E-03	2.76E-04	4.70E-03	3.19E-03	2.27E-03	4.19E-05	8.21E-04	5.23E-04	3.67E-04	2.28E-05	5.16E-04	2.50E-04	1.81E-04
173	259175.3	4083917	2.57E-04	4.38E-03	2.97E-03	2.11E-03	2.57E-04	4.38E-03	2.97E-03	2.11E-03	3.91E-05	7.65E-04	4.87E-04	3.42E-04	2.12E-05	4.81E-04	2.33E-04	1.69E-04
174	259161.9	4083909	2.42E-04	4.13E-03	2.80E-03	1.99E-03	2.42E-04	4.13E-03	2.80E-03	1.99E-03	3.68E-05	7.21E-04	4.59E-04	3.22E-04	2.00E-05	4.53E-04	2.19E-04	1.59E-04
175	259136.8	4083874	1.96E-04	3.33E-03	2.26E-03	1.61E-03	1.96E-04	3.33E-03	2.26E-03	1.61E-03	2.97E-05	5.82E-04	3.71E-04	2.60E-04	1.61E-05	3.66E-04	1.77E-04	1.29E-04
176	259141	4083859	1.85E-04	3.15E-03	2.13E-03	1.52E-03	1.85E-04	3.15E-03	2.13E-03	1.52E-03	2.81E-05	5.50E-04	3.50E-04	2.46E-04	1.53E-05	3.46E-04	1.67E-04	1.21E-04
177	259144.3	4083840	1.72E-04	2.93E-03	1.99E-03	1.41E-03	1.72E-04	2.93E-03	1.99E-03	1.41E-03	2.62E-05	5.13E-04	3.27E-04	2.29E-04	1.42E-05	3.22E-04	1.56E-04	1.13E-04
178	259192.1	4083852	1.99E-04	3.39E-03	2.30E-03	1.64E-03	1.99E-04	3.39E-03	2.30E-03	1.64E-03	3.03E-05	5.93E-04	3.78E-04	2.65E-04	1.64E-05	3.73E-04	1.80E-04	1.31E-04
179	259185.4	4083875	2.16E-04	3.69E-03	2.50E-03	1.78E-03	2.16E-04	3.69E-03	2.50E-03	1.78E-03	3.29E-05	6.45E-04	4.11E-04	2.88E-04	1.79E-05	4.05E-04	1.96E-04	1.42E-04
180	259208	4083889	2.37E-04	4.05E-03	2.74E-03	1.95E-03	2.37E-04	4.05E-03	2.74E-03	1.95E-03	3.61E-05	7.07E-04	4.51E-04	3.16E-04	1.96E-05	4.44E-04	2.15E-04	1.56E-04
181	259217.3	4083876	2.28E-04	3.89E-03	2.64E-03	1.87E-03	2.28E-04	3.89E-03	2.64E-03	1.87E-03	3.47E-05	6.79E-04	4.33E-04	3.03E-04	1.88E-05	4.27E-04	2.06E-04	1.50E-04
182	259224	4083857	2.13E-04	3.62E-03	2.46E-03	1.75E-03	2.13E-04	3.62E-03	2.46E-03	1.75E-03	3.23E-05	6.33E-04	4.03E-04	2.83E-04	1.76E-05	3.98E-04	1.92E-04	1.40E-04
183	259245.7	4083914	2.76E-04	4.71E-03	3.19E-03	2.27E-03	2.76E-04	4.71E-03	3.19E-03	2.27E-03	4.20E-05	8.22E-04	5.24E-04	3.67E-04	2.28E-05	5.17E-04	2.50E-04	1.81E-04
184	259255	4083901	2.63E-04	4.48E-03	3.04E-03	2.16E-03	2.63E-04	4.48E-03	3.04E-03	2.16E-03	4.00E-05	7.83E-04	4.99E-04	3.50E-04	2.17E-05	4.92E-04	2.38E-04	1.73E-04
185	259259.2	4083885	2.48E-04	4.23E-03	2.86E-03	2.04E-03	2.48E-04	4.23E-03	2.86E-03	2.04E-03	3.77E-05	7.38E-04	4.70E-04	3.30E-04	2.05E-05	4.64E-04	2.24E-04	1.63E-04
186	259265.9	4083869	2.34E-04	3.99E-03	2.71E-03	1.92E-03	2.34E-04	3.99E-03	2.71E-03	1.92E-03	3.56E-05	6.98E-04	4.45E-04	3.12E-04	1.93E-05	4.38E-04	2.12E-04	1.54E-04
187	259270.9	4083856	2.24E-04	3.81E-03	2.59E-03	1.84E-03	2.24E-04	3.81E-03	2.59E-03	1.84E-03	3.40E-05	6.66E-04	4.24E-04	2.97E-04	1.85E-05	4.19E-04	2.02E-04	1.47E-04
188	259273.4	4083842	2.13E-04	3.63E-03	2.46E-03	1.75E-03	2.13E-04	3.63E-03	2.46E-03	1.75E-03	3.24E-05	6.34E-04	4.04E-04	2.83E-04	1.76E-05	3.99E-04	1.93E-04	1.40E-04
189	259282.6	4083824	2.01E-04	3.42E-03	2.32E-03	1.65E-03	2.01E-04	3.42E-03	2.32E-03	1.65E-03	3.05E-05	5.98E-04	3.81E-04	2.67E-04	1.66E-05	3.76E-04	1.82E-04	1.32E-04
190	259280.9	4083937	3.03E-04	5.16E-03	3.50E-03	2.49E-03	3.03E-04	5.16E-03	3.50E-03	2.49E-03	4.61E-05	9.02E-04	5.75E-04	4.03E-04	2.50E-05	5.67E-04	2.74E-04	1.99E-04
191	259284.3	4083924	2.89E-04	4.92E-03	3.34E-03	2.37E-03	2.89E-04	4.92E-03	3.34E-03	2.37E-03	4.39E-05	8.60E-04	5.48E-04	3.84E-04	2.38E-05	5.40E-04	2.61E-04	1.90E-04
192	259291.8	4083909	2.74E-04	4.67E-03	3.16E-03	2.25E-03	2.74E-04	4.67E-03	3.16E-03	2.25E-03	4.16E-05	8.15E-04	5.19E-04	3.64E-04	2.26E-05	5.12E-04	2.48E-04	1.80E-04
193	259296.9	4083893	2.59E-04	4.42E-03	2.99E-03	2.13E-03	2.59E-04	4.42E-03	2.99E-03	2.13E-03	3.94E-05	7.71E-04	4.91E-04	3.44E-04	2.14E-05	4.85E-04	2.34E-04	1.70E-04
194	259306.1	4083879	2.48E-04	4.22E-03	2.86E-03	2.03E-03	2.48E-04	4.22E-03	2.86E-03	2.03E-03	3.77E-05	7.38E-04	4.70E-04	3.29E-04	2.05E-05	4.64E-04	2.24E-04	1.63E-04
195	259313.6	4083861	2.33E-04	3.98E-03	2.70E-03	1.92E-03	2.33E-04	3.98E-03	2.70E-03	1.92E-03	3.55E-05	6.94E-04	4.43E-04	3.10E-04	1.93E-05	4.36E-04	2.11E-04	1.53E-04
196	259317.8	4083845	2.21E-04	3.78E-03	2.56E-03	1.82E-03	2.21E-04	3.78E-03	2.56E-03	1.82E-03	3.37E-05	6.60E-04	4.20E-04	2.95E-04	1.83E-05	4.14E-04	2.00E-04	1.46E-04
197	259322.8	4083821	2.05E-04	3.50E-03	2.37E-03	1.69E-03	2.05E-04	3.50E-03	2.37E-03	1.69E-03	3.12E-05	6.11E-04	3.90E-04	2.73E-04	1.70E-05	3.84E-04	1.86E-04	1.35E-04
198	259102.4	4083698	1.01E-04	1.72E-03	1.17E-03	8.29E-04	1.01E-04	1.72E-03	1.17E-03	8.29E-04	1.54E-05	3.01E-04	1.92E-04	1.34E-04	8.34E-06	1.89E-04	9.14E-05	6.64E-05
199	259101.6	4083719	1.07E-04	1.82E-03	1.23E-03	8.76E-04	1.07E-04	1.82E-03	1.23E-03	8.76E-04	1.62E-05	3.17E-04	2.02E-04	1.42E-04	8.80E-06	1.99E-04	9.65E-05	7.01E-05
200	259095.7	4083739	1.12E-04	1.90E-03	1.29E-03	9.18E-04	1.12E-04	1.90E-03	1.29E-03	9.18E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.22E-06	2.09E-04	1.01E-04	7.34E-05
201	259091.5	4083786	1.28E-04	2.18E-03	1.48E-03	1.05E-03	1.28E-04	2.18E-03	1.48E-03	1.05E-03	1.95E-05	3.81E-04	2.43E-04	1.70E-04	1.06E-05	2.40E-04	1.16E-04	8.42E-05
202	259083.2	4083809	1.36E-04	2.32E-03	1.57E-03	1.12E-03	1.36E-04	2.32E-03	1.57E-03	1.12E-03	2.07E-05	4.05E-04	2.58E-04	1.81E-04	1.12E-05	2.54E-04	1.23E-04	8.93E-05
203	259075.6	4083826	1.42E-04	2.42E-03	1.64E-03	1.17E-03	1.42E-04	2.42E-03	1.64E-03	1.17E-03	2.16E-05	4.23E-04	2.70E-04	1.89E-04	1.17E-05	2.66E-04	1.29E-04	9.34E-05
204	259055.5	4083874	1.62E-04	2.77E-03	1.87E-03	1.33E-03	1.62E-04	2.77E-03	1.87E-03	1.33E-03	2.47E-05	4.83E-04	3.08E-04	2.16E-04	1.34E-05	3.04E-04	1.47E-04	1.07E-04
205	259032	4083868	1.51E-04	2.57E-03	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E

218	258817.5	4083832	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.24E-06	2.09E-04	1.01E-04	7.36E-05
219	258834.3	4083832	1.12E-04	1.91E-03	1.30E-03	9.22E-04	1.12E-04	1.91E-03	1.30E-03	9.22E-04	1.71E-05	3.34E-04	2.13E-04	1.49E-04	9.27E-06	2.10E-04	1.02E-04	7.38E-05
220	258857.7	4083832	1.13E-04	1.93E-03	1.31E-03	9.31E-04	1.13E-04	1.93E-03	1.31E-03	9.31E-04	1.72E-05	3.37E-04	2.15E-04	1.51E-04	9.36E-06	2.12E-04	1.03E-04	7.45E-05
221	258879.5	4083830	1.14E-04	1.95E-03	1.32E-03	9.38E-04	1.14E-04	1.95E-03	1.32E-03	9.38E-04	1.74E-05	3.40E-04	2.17E-04	1.52E-04	9.43E-06	2.14E-04	1.03E-04	7.51E-05
222	258895.4	4083828	1.15E-04	1.95E-03	1.32E-03	9.41E-04	1.15E-04	1.95E-03	1.32E-03	9.41E-04	1.74E-05	3.41E-04	2.17E-04	1.52E-04	9.46E-06	2.14E-04	1.04E-04	7.53E-05
223	258916.4	4083827	1.16E-04	1.97E-03	1.34E-03	9.50E-04	1.16E-04	1.97E-03	1.34E-03	9.50E-04	1.76E-05	3.44E-04	2.19E-04	1.54E-04	9.55E-06	2.16E-04	1.05E-04	7.60E-05
224	258934	4083826	1.17E-04	1.99E-03	1.35E-03	9.57E-04	1.17E-04	1.99E-03	1.35E-03	9.57E-04	1.77E-05	3.47E-04	2.21E-04	1.55E-04	9.62E-06	2.18E-04	1.05E-04	7.66E-05
225	258958.3	4083825	1.19E-04	2.02E-03	1.37E-03	9.75E-04	1.19E-04	2.02E-03	1.37E-03	9.75E-04	1.81E-05	3.54E-04	2.25E-04	1.58E-04	9.80E-06	2.22E-04	1.07E-04	7.80E-05
226	258971.7	4083827	1.21E-04	2.07E-03	1.40E-03	9.96E-04	1.21E-04	2.07E-03	1.40E-03	9.96E-04	1.84E-05	3.61E-04	2.30E-04	1.61E-04	1.00E-05	2.27E-04	1.10E-04	7.97E-05
227	258992.7	4083826	1.24E-04	2.12E-03	1.44E-03	1.02E-03	1.24E-04	2.12E-03	1.44E-03	1.02E-03	1.89E-05	3.70E-04	2.36E-04	1.65E-04	1.03E-05	2.32E-04	1.12E-04	8.16E-05
228	259012.8	4083824	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.93E-05	3.78E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.36E-05
229	259032	4083824	1.31E-04	2.23E-03	1.51E-03	1.08E-03	1.31E-04	2.23E-03	1.51E-03	1.08E-03	1.99E-05	3.90E-04	2.48E-04	1.74E-04	1.08E-05	2.45E-04	1.18E-04	8.60E-05
230	259048.8	4083783	1.18E-04	2.02E-03	1.37E-03	9.72E-04	1.18E-04	2.02E-03	1.37E-03	9.72E-04	1.80E-05	3.52E-04	2.24E-04	1.57E-04	9.77E-06	2.21E-04	1.07E-04	7.78E-05
231	259026.2	4083783	1.15E-04	1.95E-03	1.32E-03	9.41E-04	1.15E-04	1.95E-03	1.32E-03	9.41E-04	1.74E-05	3.41E-04	2.17E-04	1.52E-04	9.46E-06	2.14E-04	1.04E-04	7.53E-05
232	259009.4	4083782	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.24E-06	2.09E-04	1.01E-04	7.35E-05
233	258989.3	4083782	1.09E-04	1.86E-03	1.26E-03	8.98E-04	1.09E-04	1.86E-03	1.26E-03	8.98E-04	1.66E-05	3.25E-04	2.07E-04	1.45E-04	9.03E-06	2.05E-04	9.89E-05	7.18E-05
234	258972.5	4083784	1.08E-04	1.84E-03	1.25E-03	8.86E-04	1.08E-04	1.84E-03	1.25E-03	8.86E-04	1.64E-05	3.21E-04	2.05E-04	1.43E-04	8.91E-06	2.02E-04	9.76E-05	7.09E-05
235	258949.9	4083785	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.61E-05	3.16E-04	2.01E-04	1.41E-04	8.75E-06	1.98E-04	9.59E-05	6.97E-05
236	258931.5	4083785	1.04E-04	1.78E-03	1.21E-03	8.58E-04	1.04E-04	1.78E-03	1.21E-03	8.58E-04	1.59E-05	3.11E-04	1.98E-04	1.39E-04	8.63E-06	1.95E-04	9.45E-05	6.87E-05
237	258909.7	4083785	1.03E-04	1.76E-03	1.19E-03	8.47E-04	1.03E-04	1.76E-03	1.19E-03	8.47E-04	1.57E-05	3.07E-04	1.96E-04	1.37E-04	8.51E-06	1.93E-04	9.33E-05	6.78E-05
238	258892.9	4083785	1.02E-04	1.74E-03	1.18E-03	8.38E-04	1.02E-04	1.74E-03	1.18E-03	8.38E-04	1.55E-05	3.04E-04	1.94E-04	1.36E-04	8.42E-06	1.91E-04	9.23E-05	6.70E-05
239	258874.5	4083785	1.01E-04	1.72E-03	1.17E-03	8.30E-04	1.01E-04	1.72E-03	1.17E-03	8.30E-04	1.54E-05	3.01E-04	1.92E-04	1.34E-04	8.34E-06	1.89E-04	9.14E-05	6.64E-05
240	258853.5	4083785	1.00E-04	1.71E-03	1.16E-03	8.23E-04	1.00E-04	1.71E-03	1.16E-03	8.23E-04	1.52E-05	2.98E-04	1.90E-04	1.33E-04	8.27E-06	1.87E-04	9.07E-05	6.59E-05
241	258837.6	4083788	1.00E-04	1.71E-03	1.16E-03	8.24E-04	1.00E-04	1.71E-03	1.16E-03	8.24E-04	1.52E-05	2.99E-04	1.90E-04	1.33E-04	8.28E-06	1.88E-04	9.07E-05	6.59E-05
242	258817.5	4083785	9.90E-05	1.69E-03	1.14E-03	8.13E-04	9.90E-05	1.69E-03	1.14E-03	8.13E-04	1.51E-05	2.95E-04	1.88E-04	1.32E-04	8.18E-06	1.85E-04	8.96E-05	6.51E-05
243	258799.1	4083788	9.91E-05	1.69E-03	1.15E-03	8.14E-04	9.91E-05	1.69E-03	1.15E-03	8.14E-04	1.51E-05	2.95E-04	1.88E-04	1.32E-04	8.18E-06	1.85E-04	8.97E-05	6.51E-05
244	258799.1	4083743	8.86E-05	1.51E-03	1.02E-03	7.28E-04	8.86E-05	1.51E-03	1.02E-03	7.28E-04	1.35E-05	2.64E-04	1.68E-04	1.18E-04	7.32E-06	1.66E-04	8.02E-05	5.83E-05
245	258816.7	4083742	8.92E-05	1.52E-03	1.03E-03	7.32E-04	8.92E-05	1.52E-03	1.03E-03	7.32E-04	1.36E-05	2.66E-04	1.69E-04	1.19E-04	7.36E-06	1.67E-04	8.07E-05	5.86E-05
246	258838.5	4083742	8.98E-05	1.53E-03	1.04E-03	7.38E-04	8.98E-05	1.53E-03	1.04E-03	7.38E-04	1.37E-05	2.68E-04	1.70E-04	1.19E-04	7.42E-06	1.68E-04	8.13E-05	5.91E-05
247	258853.5	4083742	9.03E-05	1.54E-03	1.04E-03	7.42E-04	9.03E-05	1.54E-03	1.04E-03	7.42E-04	1.37E-05	2.69E-04	1.71E-04	1.20E-04	7.46E-06	1.69E-04	8.17E-05	5.94E-05
248	258870.3	4083741	9.07E-05	1.55E-03	1.05E-03	7.45E-04	9.07E-05	1.55E-03	1.05E-03	7.45E-04	1.38E-05	2.70E-04	1.72E-04	1.21E-04	7.49E-06	1.70E-04	8.21E-05	5.97E-05
249	258889.6	4083744	9.20E-05	1.57E-03	1.06E-03	7.56E-04	9.20E-05	1.57E-03	1.06E-03	7.56E-04	1.40E-05	2.74E-04	1.75E-04	1.22E-04	7.60E-06	1.72E-04	8.33E-05	6.05E-05
250	258909.7	4083741	9.24E-05	1.58E-03	1.07E-03	7.59E-04	9.24E-05	1.58E-03	1.07E-03	7.59E-04	1.41E-05	2.75E-04	1.75E-04	1.23E-04	7.63E-06	1.73E-04	8.36E-05	6.08E-05
251	258927.3	4083742	9.36E-05	1.60E-03	1.08E-03	7.69E-04	9.36E-05	1.60E-03	1.08E-03	7.69E-04	1.42E-05	2.79E-04	1.78E-04	1.24E-04	7.73E-06	1.75E-04	8.47E-05	6.15E-05
252	258945.7	4083740	9.43E-05	1.61E-03	1.09E-03	7.75E-04	9.43E-05	1.61E-03	1.09E-03	7.75E-04	1.43E-05	2.81E-04	1.79E-04	1.25E-04	7.79E-06	1.77E-04	8.54E-05	6.20E-05
253	258964.2	4083740	9.57E-05	1.63E-03	1.11E-03	7.86E-04	9.57E-05	1.63E-03	1.11E-03	7.86E-04	1.45E-05	2.85E-04	1.81E-04	1.27E-04	7.90E-06	1.79E-04	8.66E-05	6.29E-05
254	258985.1	4083741	9.76E-05	1.66E-03	1.13E-03	8.02E-04	9.76E-05	1.66E-03	1.13E-03	8.02E-04	1.48E-05	2.91E-04	1.85E-04	1.30E-04	8.06E-06	1.83E-04	8.84E-05	6.42E-05
255	259003.6	4083739	9.88E-05	1.68E-03	1.14E-03	8.12E-04	9.88E-05	1.68E-03	1.14E-03	8.12E-04	1.50E-05	2.94E-04	1.87E-04	1.31E-04	8.16E-06	1.85E-04	8.94E-05	6.49E-05
256	259004.4	4083698	8.98E-05	1.53E-03	1.04E-03	7.38E-04	8.98E-05	1.53E-03	1.04E-03	7.38E-04	1.37E-05	2.67E-04	1.70E-04	1.19E-04	7.42E-06	1.68E-04	8.13E-05	5.90E-05
257	258986.8	4083700	8.87E-05	1.51E-03	1.03E-03	7.29E-04	8.87E-05	1.51E-03	1.03E-03	7.29E-04	1.35E-05	2.64E-04	1.68E-04	1.18E-04	7.33E-06	1.66E-04	8.03E-05	5.83E-05
258	258966.7	4083700	8.72E-05	1.49E-03	1.01E-03	7.16E-04	8.72E-05	1.49E-03	1.01E-03	7.16E-04	1.33E-05	2.60E-04	1.65E-04	1.16E-04	7.20E-06	1.63E-04	7.89E-05	5.73E-05
259	258949.9	4083702	8.67E-05	1.48E-03	1.00E-03	7.12E-04	8.67E-05	1.48E-03	1.00E-03	7.12E-04	1.32E-05	2.58E-04	1.65E-04	1.15E-04	7.16E-06	1.62E-04	7.85E-05	5.70E-05
260	258932.3	4083702	8.58E-05	1.46E-03	9.91E-04	7.04E-04	8.58E-05	1.46E-03	9.91E-04	7.04E-04	1.30E-05	2.55E-04	1.63E-04	1.14E-04	7.08E-06	1.60E-04	7.76E-05	5.64E-05
261	258909.7	4083702	8.45E-05	1.44E-03	9.77E-04	6.94E-04	8.45E-05	1.44E-03	9.77E-04	6.94E-04	1.29E-05	2.52E-04	1.60E-04	1.12E-04	6.98E-06	1.58E-04	7.65E-05	5.56E-05
262	258892.9	4083705	8.46E-05	1.44E-03	9.77E-04	6.95E-04	8.46E-05	1.44E-03	9.77E-04	6.95E-04	1.29E-05	2.52E-04	1.60E-04	1.12E-04	6.98E-06	1.58E-04	7.65E-05	5.56E-05
263	258876.2	4083705	8.40E-05	1.43E-03	9.71E-04	6.90E-04	8.40E-05	1.43E-03	9.71E-04	6.90E-04	1.28E-05	2.50E-04	1.59E-04	1.12E-04	6.94E-06	1.57E-04	7.60E-05	5.52E-05
264	258855.2	4083704	8.31E-05	1.42E-03	9.60E-04	6.83E-04	8.31E-05	1.42E-03	9.60E-04	6.83E-04	1.26E-05	2.47E-04	1.58E-04	1.11E-04	6.86E-06	1.56E-04	7.52E-05	5.46E-05
265	258835.9	4083704	8.24E-05	1.40E-03	9.52E-04	6.77E-04	8.24E-05	1.40E-03	9.52E-04	6.77E-04	1.25E-05	2.45E-04	1.56E-04	1.10E-04	6.80E-06	1.54E-04	7.45E-05	5.42E-05
266	258815.8	4083706	8.19E-05	1.40E-03	9.47E-04	6.73E-04	8.19E-05	1.40E-03	9.47E-04	6.73E-04	1.25E-05	2.44E-04	1.55E-04	1.09E-04	6.77E-06	1.53E-04	7.42E-05	5.39E-05
267	258795.7	4083705	8.13E-05	1.39E-03	9.39E-04	6.68E-04	8.13E-05	1.39E-03	9.39E-04	6.68E-04	1.24E-05	2.42E-04	1.54E-04	1.08E-04	6.71E-06	1.52E-04	7.36E-05	5.34E-05
268	258926.5	4083670	7.95E-05	1.35E-03	9.18E-04	6.53E-04	7.95E-05	1.35E-03	9.18E-04	6.53E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.56E-06	1.49E-04	7.19E-05	5.22E-05
269	258926.5	4083657	7.74E-05	1.32E-03	8.95E-04	6.36E-04	7.74E-05	1.32E-03	8.95E-04	6.36E-04	1.18E-05	2.31E-04	1.47E-04	1.03E-04	6.39E-06	1.45E-04	7.01E-05	5.09E-05
270	258921.4	4083649	7.59E-05	1.29E-03	8.78E-04	6.24E-04	7.59E-05	1.29E-03	8.78E-04	6.24E-04	1.15E-05	2.26E-04	1.44E-04	1.01E-04	6.27E-06	1.42E-04	6.87E-05	4.99E-05
271	258923.1	4083638	7.43E-05	1.27E-03	8.59E-04	6.11E-04	7.43E-05	1.27E-03	8.59E-04	6.11E-04	1.13E-05	2.21E-04	1.41E-04	9.89E-05	6.14E-06	1.39E-04	6.73E-05	4.89E-05
272	258899.6	4083636	7.33E-05	1.25E-03	8.48E-04	6.02E-04	7.33E-05	1.25E-03	8.48E-04	6.02E-04	1.12E-05	2.18E-04	1.39E-04	9.75E-05	6.06E-06	1.37E-04	6.64E-05	4.82E-05
273	258898	4083648	7.50E-05	1.28E-03	8.67E-04	6.16E-04	7.50E-05	1.28E-03	8.67E-04	6.16E-04	1.14E-05	2.23E-04	1.42E-04	9.97E-05	6.19E-06	1.40E-04	6.79E-05	4.93E-05
274	258896.3	4083659	7.66E-05	1.31E-03	8.86E-04	6.30E-04	7.66E-05	1.31E-03	8.86E-04	6.30E-04	1.17E-05	2.28E-04	1.45E-04	1.02E-04	6.33E-06	1.43E-04	6.94E-05	5.04E-05
275	258897.1	4083670	7.84E-05	1.34E-03	9.07E-04	6.44E-04	7.84E-05	1.34E-03	9.07E-04	6.44E-04	1.19E-05	2.34E-04	1.49E-04	1.04E-04	6.48E-06	1.47E-04	7.10E-05	5.16E-05
276	258883.7	4083671	7.82E-05	1.33E-03	9.04E-04	6.43E-04	7.82E-05	1.33E-03	9.04E-04	6.43E-04	1.19E-05	2.33E-04	1.48E-04	1.04E-04	6.46E-06	1.46E-04	7.08E-05	5.14E-05
277	258881.2	4083661	7.65E-05	1.30E-03	8.84E-04	6.28E-04	7.65E-05	1.30E-03	8.84E-04	6.28E-04	1.16E-05	2.28E-04	1.45E-04	1.02E-04	6.32E-06	1.43E-04	6.92E-05	5.03E-05
278	258877.8	4083648	7.44E-05	1.27E-03	8.60E-04	6.11E-04	7.44E-05	1.27E-03	8.60E-04	6.11E-04	1.13E-05	2.22E-04	1.41E-04	9.89E-05	6.14E-06	1.39E-04	6.73E-05	4.89E-05
279	258877	4083636	7.27E-05	1.24E-03	8.40E-04	5.97E-04	7.27E-05	1.24E-03	8.40E-04	5.97E-04	1.11E-05	2.16E-04	1.38E-04	9.67E-05	6.00E-06	1.36E-04	6.58E-05	4.78E-05
280	258850.2	4083636	7.20E-05	1.23E-03	8.32E-04	5.91E-04	7.20E-05	1.23E-03	8.32E-04	5.91E-04	1.09E-05	2.14E-04	1.37E-04	9.57E-05	5.94E-06	1.35E-04	6.51E-05	4.73E-05
281	258853.5	4083649	7.39E-05	1.26E-03	8.54E-04	6.07E-04	7.39E-05	1.26E-03	8.54E-04	6.07E-04	1.12E-05	2.20E-04	1.40E-04	9.82E-05	6.10E-06	1.38E-04	6.68E-05	4.86E-05
282	258853.5	4083661	7.56E-05	1.29E-03	8.74E-04	6.21E-04	7.56E-05	1.29E-03	8.74E-04	6.21E-04	1.15E-05	2.25E-04	1.43E-04	1.01E-04	6.24E-06	1.42E-04	6.84E-05	4.97E-05
283	258851.9	4083671	7.71E-05	1.31E-03	8.91E-04	6.33E-04	7.71E-05	1.31E-03	8.91E-04	6.33E-04	1.17E-05	2.30E-04	1.46E-04	1.03E-04	6.37E-06	1.44E-04	6.98E-05	5.07E-05
284	258830.9	4083672	7.68E-05	1.31E-03	8.88E-04	6.31E-04	7.68E-05	1.31E-03	8.88E-04	6.31E-04	1.17E-05	2.29E-04	1.46E-04	1.02E-04	6.34E-06	1.44E-04	6.95E-05	5.05E-05
285	258830.9	4083661	7.51E-05	1.28E-03	8.68E-04	6.17E-04	7.51E-05	1.28E-03	8.68E-04	6.17E-04	1.14E-05	2.24E-04	1.43E-04	9.99E-05	6.20E-06	1.41E-04	6.80E-05	4.94E-05
286	258831.8	4083652	7.38E-05	1.26E-03	8.53E-04	6.06E-04	7.38E-05	1.26E-03	8.53E-04	6.06E-04	1.12E-05	2.20E-04	1.40E-04	9.81E-05	6.09E-06	1.38E-04	6.68E-05	4.85E-05
287	258830.1	4083642	7.23E-05	1.23E-03	8.35E-04	5.94E-04	7.23E-05	1.23E-03	8.35E-04	5.94E-04	1.10E-05	2.15E-04	1.37E-04	9.61E-05	5.97E-06	1.35E-04	6.54E-05	4.75E-05
288	258803.3	4083638	7.10E-05	1.21E-03	8.20E-04	5.83E-04	7.10E-05	1.21E-03	8.20E-04	5.83E-04	1.08E-05	2.11E-04	1.35E-04	9.44E-05	5.86E-06	1.33E-04	6.42E-05	4.67E-05
289	258803.3	4083651	7.30E-05	1.24E-03	8.43E-04	5.99E-04	7.30E-05	1.24E-03	8.43E-04	5.99E-04	1.11E-05	2.17E-04	1.38E-04	9.71E-05	6.03E-06	1.37E-04	6.60E-05	4.80E-05
290	258803.3	4083662	7.46E-05	1.27E-03	8.62E-04	6.13E-04	7.46E-05	1.27E-03	8.62E-04	6.13E-04	1.13E-05	2.22E-04	1.41E-04	9.92E-05	6.16E-06	1.40E-04	6.75E-05	4.90E-05
291	258799.9	4083674	7.63E-05	1.30E-03	8.82E-04	6.27E-04	7.63E-05	1.30E-03	8.82E-04	6.27E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.30E-06	1.43E-04	6.90E-05	5.01E-05
292	258770.6	4083673	7.54E-05	1.29E-03	8.72E-04	6.19E-04	7.54E-05	1.29E-03	8.72E-04	6.19E-04	1.15E-05	2.25E-04	1.43E-04	1.00E-04	6.23E-06	1.41E-04	6.82E-05	4.96E-05
293	258773.9	4083662	7.38E-05	1.26E-03	8.53E-04	6.06E-04	7.38E-05	1.26E-03	8.53E-04	6.06E-04	1.12E-05	2.20E-04	1.40E-04	9.81E-05	6.09E-06	1.38E-04	6.68E-05	4.85E-05
294	258775.6	4083652	7.23E-05	1.23E-03	8.36E-04	5.94E-04	7.23E-05	1.23E-03	8.36E-04	5.94E-04	1.10E-05	2.15E-04	1.37E-04	9.62E-05	5.97E-06	1.35E-04	6.55E-05	4.76E-05
295	258775.6	4083640	7.06E-05	1.20E-03	8.16E-04	5.80E-04	7.06E-05	1.20E-03	8.16E-04	5.80E-04	1.07E-05	2.10E-04	1.34E-04	9.40E-05	5.83E-06	1.32E-04	6.39E-05	4.64E-05
296	258778.1	4083625	6.85E-05	1.17E-03	7.92E-04	5.63E-04	6.85E-05	1.17E-03	7.92E-04	5.63E-04	1.04E-05	2.04E-04	1.30E-04	9.11E-05	5.66E-06	1.28E-04	6.20E-05	4.50E-05
297	258759.7	4083728	8.45E-05	1.44E-03	9.77E-04	6.94E-04	8.45E-05	1.44E-03	9.77E-04	6.94E-04	1.29E-05	2.52E-04	1.60E-04	1.12E-04	6.98E-06	1.58E-04	7.65E-05	5.56E-05
298	258761.4	4083752	8.94E-05	1.52E-03	1.03E-03	7.34E-04	8.94E-05	1.52E-03	1.03E-03	7.34E-04	1.36E-05	2.66E-04	1.70E-04	1.19E-04	7.38E-06	1.67E-04	8.09E-05	5.88E-05
299	258760.5	4083777	9.51E-05	1.62E-03	1.10E-03	7.81E-04	9.51E-05	1.62E-03	1.10E-03	7.81E-04	1.45E-05	2.83E-04	1.80E-04	1.26E-04	7.85E-06	1.78E-04	8.61E-05	6.25E-05
300	258763	4083807	1.03E-04	1.76E-03	1.19E-03	8.47E-04	1.03E-04	1.76E-03	1.19E-03	8.47E-04	1.57E-05	3.07E-04	1.96E-04	1.37E-04	8.51E-06	1.93E-04	9.33E-05	6.78E-05
301	258765.6	4083827	1.09E-04	1.86E-03	1.26E-03	8.94E-04	1.09E-04	1.86E-03	1.26E-03	8.94E-04	1.66E-05	3.24E-04	2.07E-04	1.45E-04	8.99E-06	2.04E-04	9.85E-05	7.16E-05
302	258768.1	4083852	1.17E-04	1.99E-03	1.35E-03	9.60E-04	1.17E-04	1.99E-03	1.35E-03	9.60E-04	1.78E-05	3.48E-04	2.22E-04	1.55E-04	9.65E-06	2.19E-04	1.06E-04	7.68E-05
303	258769.7	4083871	1.23E-04	2.10E-03	1.43E-03	1.01E-03	1.23E-04	2.10E-03	1.43E-03	1.01E-03	1.88E-05	3.68E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.11E-05
304	259154.4	4083824	1.65E-04	2.82E-03	1.91E-03	1.36E-03	1.65E-04	2.82E-03	1.91E-03	1.36E-03	2.51E-05	4.92E-04	3.13E-04	2.20E-04	1.36E-05	3.09E-04	1.50E-04	1.09E-04
305	259177	4083811	1.64E-04	2.80E-03	1.89E-03	1.35E-03	1.64E-04	2.80E-03	1.89E-03	1.35E-03	2.49E-05	4.88E-04	3.11E-04	2.18E-04	1.35E-05	3.07E-04	1.48E-04	1.08E-04
306	259204.7	4083814	1.74E-04	2.97E-03	2.02E-03	1.43E-03	1.74E-04	2.97E-03	2.02E-03	1.43E-03	2.65E-05	5.20E-04	3.31E-04	2.32E-04	1.44E-05	3.26E-04	1.58E-04	1.15E-04
307	259219.8	4083817	1.81E-04	3.09E-03	2.09E-03	1.49E-03	1.81E-04	3.09E-03	2.09E-03	1.49E-03	2.75E-05	5.39E-04	3.44E-04	2.41E-04	1.50E-05	3.39E-04	1.64E-04	1.19E-04
308	259238.2	4083818	1.87E-04	3.18E-03	2.16E-03	1.53E-03	1.87E-04	3.18E-03	2.16E-03	1.53E-03	2.84E-05	5.55E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
309	259254.1	4083764	1.57E-04	2.67E-03	1.81E-03	1.29E-03	1.57E-04	2.67E-03	1.81E-03	1.29E-03	2.38E-05	4.67E-04	2.98E-04	2.09E-04	1.30E-05	2.93E-04	1.42E-04	1.03E-04
310	259241.6	4083764	1.54E-04	2.63E-03	1.78E-03	1.27E-03	1.54E-04	2.63E-03	1.78E-03	1.27E-03	2.34E-05	4.59E-04	2.92E-04	2.05E-04	1.27E-05	2.88E-04	1.39E-04	1.01E-04
311	259224	4083759	1.48E-04	2.52E-03	1.71E-03	1.22E-03	1.48E-04	2.52E-03	1.71E-03	1.22E-03	2.25E-05	4.40E-04	2.81E-04	1.97E-04	1.22E-05	2.77E-04	1.34E-04	9.72E-05
312	259206.4	4083755	1.42E-04	2.42E-03	1.64E-03	1.16E-03	1.42E-04	2.42E-03	1.64E-03	1.16E-03	2.16E-05	4.22E-04	2.69E-04	1.89E-04	1.17E-05	2.65E-04	1.28E-04	9.32E-05
313	259185.4	4083751	1.35E-04	2.30E-03	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.02E-04	2.56E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.87E-05
314	259175.3	4083722	1.21E-04	2.06E-03	1.40E-03	9.92E-04	1.21E-04	2.06E-03	1.40E-03	9.92E-04	1.84E-05	3.60E-04	2.29E-04	1.61E-04	9.98E-06	2.26E-04	1.09E-04	7.94E-05
315	259176.2	4083706	1.15E-04	1.96E-03	1.33E-03	9.47E-04	1.15E-04	1.96E-03	1.33E-03	9.47E-04

328	259227.3	4083721	0.000131	0.002232	1.51E-03	1.08E-03	1.31E-04	2.23E-03	1.51E-03	1.08E-03	1.99E-05	3.90E-04	2.48E-04	1.74E-04	1.08E-05	2.45E-04	1.18E-04	8.61E-05
329	259223.1	4083701	0.000122	0.002084	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.86E-05	3.64E-04	2.32E-04	1.63E-04	1.01E-05	2.29E-04	1.11E-04	8.04E-05
330	259224	4083688	0.000118	0.00201	1.36E-03	9.68E-04	1.18E-04	2.01E-03	1.36E-03	9.68E-04	1.79E-05	3.51E-04	2.24E-04	1.57E-04	9.74E-06	2.21E-04	1.07E-04	7.75E-05
331	259225.6	4083670	0.000112	0.001911	1.30E-03	9.21E-04	1.12E-04	1.91E-03	1.30E-03	9.21E-04	1.70E-05	3.34E-04	2.13E-04	1.49E-04	9.26E-06	2.10E-04	1.01E-04	7.37E-05
332	259223.1	4083655	0.000107	0.001827	1.24E-03	8.80E-04	1.07E-04	1.83E-03	1.24E-03	8.80E-04	1.63E-05	3.19E-04	2.03E-04	1.43E-04	8.85E-06	2.01E-04	9.70E-05	7.04E-05
333	259222.3	4083640	0.000103	0.001753	1.19E-03	8.44E-04	1.03E-04	1.75E-03	1.19E-03	8.44E-04	1.56E-05	3.06E-04	1.95E-04	1.37E-04	8.49E-06	1.92E-04	9.30E-05	6.76E-05
334	259222.3	4083625	9.91E-05	0.001689	1.14E-03	8.14E-04	9.91E-05	1.69E-03	1.14E-03	8.14E-04	1.51E-05	2.95E-04	1.88E-04	1.32E-04	8.18E-06	1.85E-04	8.96E-05	6.51E-05
335	259222.3	4083609	9.52E-05	0.001622	1.10E-03	7.82E-04	9.52E-05	1.62E-03	1.10E-03	7.82E-04	1.45E-05	2.83E-04	1.81E-04	1.27E-04	7.86E-06	1.78E-04	8.61E-05	6.26E-05
336	259221.4	4083595	9.18E-05	0.001565	1.06E-03	7.54E-04	9.18E-05	1.56E-03	1.06E-03	7.54E-04	1.40E-05	2.73E-04	1.74E-04	1.22E-04	7.58E-06	1.72E-04	8.31E-05	6.03E-05
337	259218.1	4083580	8.81E-05	0.001503	1.02E-03	7.24E-04	8.81E-05	1.50E-03	1.02E-03	7.24E-04	1.34E-05	2.62E-04	1.67E-04	1.17E-04	7.28E-06	1.65E-04	7.98E-05	5.79E-05
338	259221.4	4083564	8.53E-05	0.001454	9.86E-04	7.01E-04	8.53E-05	1.45E-03	9.86E-04	7.01E-04	1.30E-05	2.54E-04	1.62E-04	1.13E-04	7.04E-06	1.60E-04	7.72E-05	5.61E-05
339	259221.4	4083547	8.19E-05	0.001397	9.47E-04	6.73E-04	8.19E-05	1.40E-03	9.47E-04	6.73E-04	1.25E-05	2.44E-04	1.55E-04	1.09E-04	6.77E-06	1.53E-04	7.42E-05	5.39E-05
340	259218.1	4083532	7.89E-05	0.001346	9.12E-04	6.48E-04	7.89E-05	1.35E-03	9.12E-04	6.48E-04	1.20E-05	2.35E-04	1.50E-04	1.05E-04	6.52E-06	1.48E-04	7.14E-05	5.19E-05
341	259255.8	4083717	0.000135	0.002299	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.01E-04	2.56E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.86E-05
342	259255	4083698	0.000127	0.002168	1.47E-03	1.04E-03	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.93E-05	3.79E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.36E-05
343	259256.6	4083684	0.000122	0.002081	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.86E-05	3.64E-04	2.32E-04	1.62E-04	1.01E-05	2.28E-04	1.10E-04	8.02E-05
344	259256.6	4083670	0.000117	0.001997	1.35E-03	9.62E-04	1.17E-04	2.00E-03	1.35E-03	9.62E-04	1.78E-05	3.49E-04	2.22E-04	1.56E-04	9.67E-06	2.19E-04	1.06E-04	7.70E-05
345	259254.1	4083653	0.000111	0.001899	1.29E-03	9.15E-04	1.11E-04	1.90E-03	1.29E-03	9.15E-04	1.69E-05	3.32E-04	2.11E-04	1.48E-04	9.20E-06	2.08E-04	1.01E-04	7.32E-05
346	259254.1	4083640	0.000108	0.001836	1.24E-03	8.84E-04	1.08E-04	1.84E-03	1.24E-03	8.84E-04	1.64E-05	3.21E-04	2.04E-04	1.43E-04	8.89E-06	2.01E-04	9.74E-05	7.08E-05
347	259254.1	4083625	0.000103	0.00176	1.19E-03	8.48E-04	1.03E-04	1.76E-03	1.19E-03	8.48E-04	1.57E-05	3.07E-04	1.96E-04	1.37E-04	8.52E-06	1.93E-04	9.34E-05	6.79E-05
348	259254.1	4083610	9.95E-05	0.001696	1.15E-03	8.17E-04	9.95E-05	1.70E-03	1.15E-03	8.17E-04	1.51E-05	2.96E-04	1.89E-04	1.32E-04	8.22E-06	1.86E-04	9.00E-05	6.54E-05
349	259253.3	4083595	9.57E-05	0.001631	1.11E-03	7.86E-04	9.57E-05	1.63E-03	1.11E-03	7.86E-04	1.46E-05	2.85E-04	1.82E-04	1.27E-04	7.90E-06	1.79E-04	8.66E-05	6.29E-05
350	259253.3	4083578	9.17E-05	0.001563	1.06E-03	7.53E-04	9.17E-05	1.56E-03	1.06E-03	7.53E-04	1.39E-05	2.73E-04	1.74E-04	1.22E-04	7.57E-06	1.72E-04	8.30E-05	6.03E-05
351	259252.4	4083565	8.89E-05	0.001515	1.03E-03	7.30E-04	8.89E-05	1.52E-03	1.03E-03	7.30E-04	1.35E-05	2.65E-04	1.69E-04	1.18E-04	7.34E-06	1.66E-04	8.04E-05	5.84E-05
352	259251.6	4083552	8.6E-05	0.001467	9.94E-04	7.07E-04	8.60E-05	1.47E-03	9.94E-04	7.07E-04	1.31E-05	2.56E-04	1.63E-04	1.14E-04	7.11E-06	1.61E-04	7.79E-05	5.66E-05
353	259249.1	4083532	8.21E-05	0.0014	9.49E-04	6.74E-04	8.21E-05	1.40E-03	9.49E-04	6.74E-04	1.25E-05	2.44E-04	1.56E-04	1.09E-04	6.78E-06	1.54E-04	7.43E-05	5.40E-05
354	259300.2	4083769	0.000169	0.002876	1.95E-03	1.39E-03	1.69E-04	2.88E-03	1.95E-03	1.39E-03	2.57E-05	5.02E-04	3.20E-04	2.24E-04	1.39E-05	3.16E-04	1.53E-04	1.11E-04
355	259333.7	4083767	0.000173	0.002951	2.00E-03	1.42E-03	1.73E-04	2.95E-03	2.00E-03	1.42E-03	2.63E-05	5.15E-04	3.28E-04	2.30E-04	1.43E-05	3.24E-04	1.57E-04	1.14E-04
356	259296.9	4083751	0.000159	0.002707	1.84E-03	1.30E-03	1.59E-04	2.71E-03	1.84E-03	1.30E-03	2.41E-05	4.73E-04	3.01E-04	2.11E-04	1.31E-05	2.97E-04	1.44E-04	1.04E-04
357	259332.9	4083750	0.000164	0.0028	1.90E-03	1.35E-03	1.64E-04	2.80E-03	1.90E-03	1.35E-03	2.50E-05	4.89E-04	3.12E-04	2.18E-04	1.36E-05	3.07E-04	1.49E-04	1.08E-04
358	259299.4	4083731	0.000149	0.002544	1.72E-03	1.23E-03	1.49E-04	2.54E-03	1.72E-03	1.23E-03	2.27E-05	4.44E-04	2.83E-04	1.98E-04	1.23E-05	2.79E-04	1.35E-04	9.81E-05
359	259331.2	4083725	0.000152	0.002586	1.75E-03	1.25E-03	1.52E-04	2.59E-03	1.75E-03	1.25E-03	2.31E-05	4.52E-04	2.88E-04	2.02E-04	1.25E-05	2.84E-04	1.37E-04	9.97E-05
360	259303.6	4083714	0.000142	0.002421	1.64E-03	1.17E-03	1.42E-04	2.42E-03	1.64E-03	1.17E-03	2.16E-05	4.23E-04	2.69E-04	1.89E-04	1.17E-05	2.66E-04	1.29E-04	9.34E-05
361	259300.2	4083695	0.000133	0.002274	1.54E-03	1.10E-03	1.33E-04	2.27E-03	1.54E-03	1.10E-03	2.03E-05	3.97E-04	2.53E-04	1.77E-04	1.10E-05	2.50E-04	1.21E-04	8.77E-05
362	259300.2	4083674	0.000126	0.00214	1.45E-03	1.03E-03	1.26E-04	2.14E-03	1.45E-03	1.03E-03	1.91E-05	3.74E-04	2.38E-04	1.67E-04	1.04E-05	2.35E-04	1.14E-04	8.25E-05
363	259304.4	4083654	0.000119	0.002033	1.38E-03	9.80E-04	1.19E-04	2.03E-03	1.38E-03	9.80E-04	1.81E-05	3.55E-04	2.26E-04	1.59E-04	9.85E-06	2.23E-04	1.08E-04	7.84E-05
364	259303.6	4083640	0.000115	0.001953	1.32E-03	9.41E-04	1.15E-04	1.95E-03	1.32E-03	9.41E-04	1.74E-05	3.41E-04	2.17E-04	1.52E-04	9.46E-06	2.14E-04	1.04E-04	7.53E-05
365	259302.7	4083615	0.000107	0.001829	1.24E-03	8.81E-04	1.07E-04	1.83E-03	1.24E-03	8.81E-04	1.63E-05	3.20E-04	2.04E-04	1.43E-04	8.86E-06	2.01E-04	9.71E-05	7.05E-05
366	259296.9	4083580	9.74E-05	0.001661	1.13E-03	8.00E-04	9.74E-05	1.66E-03	1.13E-03	8.00E-04	1.48E-05	2.90E-04	1.85E-04	1.30E-04	8.05E-06	1.82E-04	8.82E-05	6.40E-05
367	259298.5	4083560	9.3E-05	0.001585	1.07E-03	7.64E-04	9.30E-05	1.59E-03	1.07E-03	7.64E-04	1.41E-05	2.77E-04	1.76E-04	1.24E-04	7.68E-06	1.74E-04	8.41E-05	6.11E-05
368	259300.2	4083540	8.89E-05	0.001515	1.03E-03	7.30E-04	8.89E-05	1.51E-03	1.03E-03	7.30E-04	1.35E-05	2.65E-04	1.69E-04	1.18E-04	7.34E-06	1.66E-04	8.04E-05	5.84E-05
369	259299.4	4083516	8.41E-05	0.001434	9.72E-04	6.91E-04	8.41E-05	1.43E-03	9.72E-04	6.91E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.95E-06	1.57E-04	7.61E-05	5.53E-05
370	259331.2	4083528	8.97E-05	0.001529	1.04E-03	7.37E-04	8.97E-05	1.53E-03	1.04E-03	7.37E-04	1.36E-05	2.67E-04	1.70E-04	1.19E-04	7.40E-06	1.68E-04	8.11E-05	5.89E-05
371	259330.4	4083551	9.45E-05	0.00161	1.09E-03	7.76E-04	9.45E-05	1.61E-03	1.09E-03	7.76E-04	1.44E-05	2.81E-04	1.79E-04	1.26E-04	7.80E-06	1.77E-04	8.55E-05	6.21E-05
372	259332.1	4083574	0.0001	0.001708	1.16E-03	8.23E-04	1.00E-04	1.71E-03	1.16E-03	8.23E-04	1.52E-05	2.98E-04	1.90E-04	1.33E-04	8.27E-06	1.87E-04	9.06E-05	6.58E-05
373	259331.2	4083620	0.000112	0.001914	1.30E-03	9.22E-04	1.12E-04	1.91E-03	1.30E-03	9.22E-04	1.71E-05	3.34E-04	2.13E-04	1.49E-04	9.27E-06	2.10E-04	1.02E-04	7.38E-05
374	259334.6	4083639	0.000119	0.002022	1.37E-03	9.74E-04	1.19E-04	2.02E-03	1.37E-03	9.74E-04	1.80E-05	3.53E-04	2.25E-04	1.58E-04	9.79E-06	2.22E-04	1.07E-04	7.80E-05
375	259334.6	4083657	0.000125	0.002126	1.44E-03	1.02E-03	1.25E-04	2.13E-03	1.44E-03	1.02E-03	1.90E-05	3.71E-04	2.37E-04	1.66E-04	1.03E-05	2.33E-04	1.13E-04	8.20E-05
376	259332.1	4083682	0.000133	0.00227	1.54E-03	1.09E-03	1.33E-04	2.27E-03	1.54E-03	1.09E-03	2.02E-05	3.96E-04	2.53E-04	1.77E-04	1.10E-05	2.49E-04	1.20E-04	8.75E-05
377	259332.9	4083701	0.000141	0.002406	1.63E-03	1.16E-03	1.41E-04	2.41E-03	1.63E-03	1.16E-03	2.15E-05	4.20E-04	2.68E-04	1.88E-04	1.17E-05	2.64E-04	1.28E-04	9.28E-05
378	259380.7	4083763	0.000176	0.003008	2.04E-03	1.45E-03	1.76E-04	3.01E-03	2.04E-03	1.45E-03	2.68E-05	5.25E-04	3.35E-04	2.35E-04	1.46E-05	3.30E-04	1.60E-04	1.16E-04
379	259383.2	4083739	0.000165	0.002816	1.91E-03	1.36E-03	1.65E-04	2.82E-03	1.91E-03	1.36E-03	2.51E-05	4.92E-04	3.13E-04	2.20E-04	1.36E-05	3.09E-04	1.50E-04	1.09E-04
380	259383.2	4083719	0.000156	0.002657	1.80E-03	1.28E-03	1.56E-04	2.66E-03	1.80E-03	1.28E-03	2.37E-05	4.64E-04	2.96E-04	2.07E-04	1.29E-05	2.92E-04	1.41E-04	1.02E-04
381	259409.2	4083762	0.000178	0.003035	2.06E-03	1.46E-03	1.78E-04	3.04E-03	2.06E-03	1.46E-03	2.71E-05	5.30E-04	3.38E-04	2.37E-04	1.47E-05	3.33E-04	1.61E-04	1.17E-04
382	259440.2	4083754	0.000176	0.002995	2.03E-03	1.44E-03	1.76E-04	2.99E-03	2.03E-03	1.44E-03	2.67E-05	5.23E-04	3.33E-04	2.34E-04	1.45E-05	3.29E-04	1.59E-04	1.15E-04
383	259462	4083745	0.000172	0.002931	1.99E-03	1.41E-03	1.72E-04	2.93E-03	1.99E-03	1.41E-03	2.61E-05	5.12E-04	3.26E-04	2.29E-04	1.42E-05	3.22E-04	1.56E-04	1.13E-04
384	259487.1	4083728	0.000165	0.002812	1.91E-03	1.35E-03	1.65E-04	2.81E-03	1.91E-03	1.35E-03	2.51E-05	4.91E-04	3.13E-04	2.19E-04	1.36E-05	3.09E-04	1.49E-04	1.08E-04
385	259500.5	4083718	0.000161	0.002752	1.87E-03	1.33E-03	1.61E-04	2.75E-03	1.87E-03	1.33E-03	2.45E-05	4.81E-04	3.06E-04	2.15E-04	1.33E-05	3.02E-04	1.46E-04	1.06E-04
386	259513.1	4083703	0.000156	0.002661	1.80E-03	1.28E-03	1.56E-04	2.66E-03	1.80E-03	1.28E-03	2.37E-05	4.65E-04	2.96E-04	2.08E-04	1.29E-05	2.92E-04	1.41E-04	1.03E-04
387	259530.7	4083681	0.000149	0.002532	1.72E-03	1.22E-03	1.49E-04	2.53E-03	1.72E-03	1.22E-03	2.26E-05	4.42E-04	2.82E-04	1.98E-04	1.23E-05	2.78E-04	1.34E-04	9.76E-05
388	259549.1	4083656	0.000141	0.002401	1.63E-03	1.16E-03	1.41E-04	2.40E-03	1.63E-03	1.16E-03	2.14E-05	4.19E-04	2.67E-04	1.87E-04	1.16E-05	2.64E-04	1.27E-04	9.26E-05
389	259566.7	4083637	0.000136	0.002312	1.57E-03	1.11E-03	1.36E-04	2.31E-03	1.57E-03	1.11E-03	2.06E-05	4.04E-04	2.57E-04	1.80E-04	1.12E-05	2.54E-04	1.23E-04	8.91E-05
390	259583.5	4083619	0.000131	0.002228	1.51E-03	1.07E-03	1.31E-04	2.23E-03	1.51E-03	1.07E-03	1.99E-05	3.89E-04	2.48E-04	1.74E-04	1.08E-05	2.45E-04	1.18E-04	8.59E-05
391	259594.4	4083605	0.000127	0.00217	1.47E-03	1.05E-03	1.27E-04	2.17E-03	1.47E-03	1.05E-03	1.94E-05	3.79E-04	2.42E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.37E-05
392	259612.8	4083590	0.000124	0.002109	1.43E-03	1.02E-03	1.24E-04	2.11E-03	1.43E-03	1.02E-03	1.88E-05	3.68E-04	2.35E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.13E-05
393	259627	4083576	0.00012	0.002053	1.39E-03	9.89E-04	1.20E-04	2.05E-03	1.39E-03	9.89E-04	1.83E-05	3.59E-04	2.28E-04	1.60E-04	9.94E-06	2.25E-04	1.09E-04	7.92E-05
394	259651.4	4083560	0.000117	0.001993	1.35E-03	9.60E-04	1.17E-04	1.99E-03	1.35E-03	9.60E-04	1.78E-05	3.48E-04	2.22E-04	1.56E-04	9.66E-06	2.19E-04	1.06E-04	7.69E-05
395	259611.1	4083552	0.000115	0.001958	1.33E-03	9.43E-04	1.15E-04	1.96E-03	1.33E-03	9.43E-04	1.75E-05	3.42E-04	2.18E-04	1.53E-04	9.48E-06	2.15E-04	1.04E-04	7.55E-05
396	259586.8	4083567	0.000118	0.002009	1.36E-03	9.68E-04	1.18E-04	2.01E-03	1.36E-03	9.68E-04	1.79E-05	3.51E-04	2.24E-04	1.57E-04	9.73E-06	2.21E-04	1.07E-04	7.75E-05
397	259570.9	4083580	0.000121	0.002058	1.40E-03	9.92E-04	1.21E-04	2.06E-03	1.40E-03	9.92E-04	1.84E-05	3.60E-04	2.29E-04	1.61E-04	9.97E-06	2.26E-04	1.09E-04	7.94E-05
398	259553.3	4083596	0.000124	0.002119	1.44E-03	1.02E-03	1.24E-04	2.12E-03	1.44E-03	1.02E-03	1.89E-05	3.70E-04	2.36E-04	1.65E-04	1.03E-05	2.33E-04	1.12E-04	8.17E-05
399	259538.2	4083612	0.000128	0.002185	1.48E-03	1.05E-03	1.28E-04	2.19E-03	1.48E-03	1.05E-03	1.95E-05	3.82E-04	2.43E-04	1.70E-04	1.06E-05	2.40E-04	1.16E-04	8.43E-05
400	259523.1	4083636	0.000135	0.002295	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.01E-04	2.55E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.85E-05
401	259503	4083653	0.000139	0.002371	1.61E-03	1.14E-03	1.39E-04	2.37E-03	1.61E-03	1.14E-03	2.11E-05	4.14E-04	2.64E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.14E-05
402	259491.3	4083672	0.000145	0.002473	1.68E-03	1.19E-03	1.45E-04	2.47E-03	1.68E-03	1.19E-03	2.21E-05	4.32E-04	2.75E-04	1.93E-04	1.20E-05	2.71E-04	1.31E-04	9.53E-05
403	259473.7	4083692	0.000151	0.002578	1.75E-03	1.24E-03	1.51E-04	2.58E-03	1.75E-03	1.24E-03	2.30E-05	4.50E-04	2.87E-04	2.01E-04	1.25E-05	2.83E-04	1.37E-04	9.94E-05
404	259459.4	4083706	0.000156	0.002659	1.80E-03	1.28E-03	1.56E-04	2.66E-03	1.80E-03	1.28E-03	2.37E-05	4.64E-04	2.96E-04	2.07E-04	1.29E-05	2.92E-04	1.41E-04	1.03E-04
405	259439.3	4083715	0.000159	0.002704	1.83E-03	1.30E-03	1.59E-04	2.70E-03	1.83E-03	1.30E-03	2.41E-05	4.72E-04	3.01E-04	2.11E-04	1.31E-05	2.97E-04	1.44E-04	1.04E-04
406	259415	4083722	0.00016	0.002724	1.85E-03	1.31E-03	1.60E-04	2.72E-03	1.85E-03	1.31E-03	2.43E-05	4.76E-04	3.03E-04	2.12E-04	1.32E-05	2.99E-04	1.45E-04	1.05E-04
407	259466.1	4083626	0.000129	0.002193	1.49E-03	1.06E-03	1.29E-04	2.19E-03	1.49E-03	1.06E-03	1.96E-05	3.83E-04	2.44E-04	1.71E-04	1.06E-05	2.41E-04	1.16E-04	8.46E-05
408	259465.3	4083603	0.000122	0.002074	1.41E-03	9.99E-04	1.22E-04	2.07E-03	1.41E-03	9.99E-04	1.85E-05	3.62E-04	2.31E-04	1.62E-04	1.00E-05	2.28E-04	1.10E-04	8.00E-05
409	259464.5	4083581	0.000115	0.001969	1.33E-03	9.49E-04	1.15E-04	1.97E-03	1.33E-03	9.49E-04	1.76E-05	3.44E-04	2.19E-04	1.54E-04	9.54E-06	2.16E-04	1.05E-04	7.59E-05
410	259461.1	4083557	0.000109	0.001856	1.26E-03	8.94E-04	1.09E-04	1.86E-03	1.26E-03	8.94E-04	1.66E-05	3.24E-04	2.07E-04	1.45E-04	8.99E-06	2.04E-04	9.85E-05	7.16E-05
411	259479.6	4083562	0.000112	0.001902	1.29E-03	9.16E-04	1.12E-04	1.90E-03	1.29E-03	9.16E-04	1.70E-05	3.32E-04	2.12E-04	1.48E-04	9.21E-06	2.09E-04	1.01E-04	7.33E-05
412	259498	4083557	0.000112	0.001907	1.29E-03	9.19E-04	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.23E-06	2.09E-04	1.01E-04	7.35E-05
413	259524	4083557	0.000113	0.001928	1.31E-03	9.29E-04	1.13E-04	1.93E-03	1.31E-03	9.29E-04	1.72E-05	3.37E-04	2.15E-04	1.50E-04	9.34E-06	2.12E-04	1.02E-04	7.43E-05
414	259719.2	4083521	0.000109	0.001855	1.26E-03	8.94E-04	1.09E-04	1.86E-03	1.26E-03	8.94E-04	1.65E-05	3.24E-04	2.06E-04	1.45E-04	8.99E-06	2.04E-04	9.85E-05	7.15E-05
415	259693.3	4083511	0.000107	0.001829	1.24E-03	8.81E-04	1.07E-04	1.83E-03	1.24E-03	8.81E-04	1.63E-05	3.19E-04	2.04E-04	1.43E-04	8.86E-06	2.01E-04	9.71E-05	7.05E-05
416	259669.8	4083505	0.000106	0.001806	1.22E-03	8.70E-04	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.75E-06	1.98E-04	9.59E-05	6.96E-05
417	259648	4083505	0.000106	0.001802	1.22E-03	8.68E-04	1.06E-04	1.80E-03	1.22E-03	8.68E-04	1.61E-05	3.15E-04	2.00E-04	1.41E-04	8.73E-06	1.98E-04	9.56E-05	6.95E-05
418	259622.9	4083505	0.000105	0.001794	1.22E-03	8.64E-04	1.05E-04	1.79E-03	1.22E-03	8.64E-04	1.60E-05	3.13E-04	2.00E-04	1.40E-04	8.69E-06	1.97E-04	9.52E-05	6.92E-05
419	259607.8	4083506	0.000105	0.001793	1.22E-03	8.64E-04	1.05E-04	1.79E-03	1.22E-03	8.64E-04	1.60E-05	3.13E-04	2.00E-04	1.40E-04	8.69E-06	1.97E-04	9.52E-05	6.91E-05
420	259586.8	4083506	0.000105	0.001782	1.21E-03	8.58E-04	1.05E-04	1.78E-03	1.21E-03	8.58E-04	1.59E-05	3.11E-04	1.98E-04	1.39E-04	8.63E-06	1.96E-04	9.46E-05	6.87E-05
421	259565	4083511	0.000105	0.001782	1.21E-03	8.59E-04	1.05E-04	1.78E-03	1.21E-03	8.59E-04	1.59E-05	3.11E-04	1.98E-04	1.39E-04	8.63E-06	1.96E-04	9.46E-05	6.87E-05
422	259545.8	4083506	0.000103	0.001749	1.19E-03	8.42E-04	1.03E-04	1.75E-03	1.19E-03	8.42E-04	1.56E-05	3.05E-04	1.95E-04	1.36E-04	8.47E-06	1.92E-04	9.28E-05	6.74E-05
423	259531.5	4083510	0.000103	0.001751	1.19E-03	8.44E-04	1.03E-04	1.75E-03	1.19E-03	8.44E-04	1.56E-05	3.06E-04	1.95E-04	1.37E-04	8.48E-06	1.92E-04	9.29E-05	6.75E-05
424	259509.7	4083510	0.000101	0.001728	1.17E-03	8.33E-04	1.01E-04	1.73E-03	1.17E-03	8.33E-04	1.54E-05	3.02E-04	1.92E-04	1.35E-04	8.37E-06	1.90E-04	9.17E-05	6.66E-05
425	259488.8	4083511	0.0001	0.001708	1.16E-03	8.23E-04	1.00E-04	1.71E-03	1.16E-03	8.23E-04	1.52E-05	2.98E-04	1.90E-04	1.33E-04	8.27E-06	1.88E-04	9.07E-05	6.59E-05
426	259472	4083511	9.9E-05	0.001688	1.14E-03	8.13E-04	9.90E-05	1.69E-03	1.14E-03	8.13E-04	1.51E-05	2.95E-04	1.88E-04	1.32E-04	8.18E-06	1.85E-04	8.96E-05	6.51E-05
427	259457.8	4083511	9.8E-05	0.001671	1.13E-03	8.05E-04	9.80E-05	1.67E-03	1.13E-03	8.05E-04	1.49E-05	2.92E-04	1.86E-04	1.30E-04	8

438	259415.9	4083654	0.000133	0.002275	1.54E-03	1.10E-03	1.33E-04	2.27E-03	1.54E-03	1.10E-03	2.03E-05	3.97E-04	2.53E-04	1.77E-04	1.10E-05	2.50E-04	1.21E-04	8.77E-05
439	259415	4083632	0.000126	0.00215	1.46E-03	1.04E-03	1.26E-04	2.15E-03	1.46E-03	1.04E-03	1.92E-05	3.75E-04	2.39E-04	1.68E-04	1.04E-05	2.36E-04	1.14E-04	8.29E-05
440	259414.2	4083614	0.00012	0.00205	1.39E-03	9.88E-04	1.20E-04	2.05E-03	1.39E-03	9.88E-04	1.83E-05	3.58E-04	2.28E-04	1.60E-04	9.93E-06	2.25E-04	1.09E-04	7.91E-05
441	259413.4	4083593	0.000114	0.001946	1.32E-03	9.37E-04	1.14E-04	1.95E-03	1.32E-03	9.37E-04	1.74E-05	3.40E-04	2.17E-04	1.52E-04	9.42E-06	2.14E-04	1.03E-04	7.50E-05
442	259413.4	4083575	0.000109	0.001864	1.26E-03	8.98E-04	1.09E-04	1.86E-03	1.26E-03	8.98E-04	1.66E-05	3.26E-04	2.07E-04	1.45E-04	9.03E-06	2.05E-04	9.89E-05	7.19E-05
443	259413.4	4083557	0.000105	0.001787	1.21E-03	8.61E-04	1.05E-04	1.79E-03	1.21E-03	8.61E-04	1.59E-05	3.12E-04	1.99E-04	1.39E-04	8.66E-06	1.96E-04	9.49E-05	6.89E-05
444	259413.4	4083535	9.94E-05	0.001695	1.15E-03	8.17E-04	9.94E-05	1.70E-03	1.15E-03	8.17E-04	1.51E-05	2.96E-04	1.89E-04	1.32E-04	8.21E-06	1.86E-04	9.00E-05	6.54E-05
445	258912.1	4083605	6.92E-05	0.00118	8.00E-04	5.69E-04	6.92E-05	1.18E-03	8.00E-04	5.69E-04	1.05E-05	2.06E-04	1.31E-04	9.21E-05	5.72E-06	1.30E-04	6.26E-05	4.55E-05
446	258900.3	4083603	6.87E-05	0.00117	7.93E-04	5.64E-04	6.87E-05	1.17E-03	7.93E-04	5.64E-04	1.04E-05	2.04E-04	1.30E-04	9.13E-05	5.67E-06	1.28E-04	6.21E-05	4.51E-05
447	258887.8	4083604	6.84E-05	0.001167	7.91E-04	5.62E-04	6.84E-05	1.17E-03	7.91E-04	5.62E-04	1.04E-05	2.04E-04	1.30E-04	9.10E-05	5.65E-06	1.28E-04	6.19E-05	4.50E-05
448	258878.5	4083605	6.83E-05	0.001165	7.90E-04	5.61E-04	6.83E-05	1.16E-03	7.90E-04	5.61E-04	1.04E-05	2.03E-04	1.30E-04	9.09E-05	5.64E-06	1.28E-04	6.18E-05	4.49E-05
449	258868.5	4083605	6.81E-05	0.001161	7.87E-04	5.59E-04	6.81E-05	1.16E-03	7.87E-04	5.59E-04	1.04E-05	2.03E-04	1.29E-04	9.06E-05	5.62E-06	1.27E-04	6.16E-05	4.48E-05
450	258857.6	4083605	6.78E-05	0.001157	7.84E-04	5.57E-04	6.78E-05	1.16E-03	7.84E-04	5.57E-04	1.03E-05	2.02E-04	1.29E-04	9.02E-05	5.60E-06	1.27E-04	6.14E-05	4.46E-05
451	258844.2	4083606	6.76E-05	0.001153	7.82E-04	5.55E-04	6.76E-05	1.15E-03	7.82E-04	5.55E-04	1.03E-05	2.01E-04	1.28E-04	8.99E-05	5.58E-06	1.27E-04	6.12E-05	4.45E-05
452	258913.7	4083585	6.66E-05	0.001136	7.70E-04	5.47E-04	6.66E-05	1.14E-03	7.70E-04	5.47E-04	1.01E-05	1.98E-04	1.26E-04	8.86E-05	5.50E-06	1.25E-04	6.03E-05	4.38E-05
453	258900.3	4083585	6.62E-05	0.001129	7.65E-04	5.44E-04	6.62E-05	1.13E-03	7.65E-04	5.44E-04	1.01E-05	1.97E-04	1.26E-04	8.81E-05	5.47E-06	1.24E-04	5.99E-05	4.35E-05
454	258890.3	4083585	6.61E-05	0.001127	7.64E-04	5.43E-04	6.61E-05	1.13E-03	7.64E-04	5.43E-04	1.00E-05	1.97E-04	1.25E-04	8.79E-05	5.46E-06	1.24E-04	5.98E-05	4.34E-05
455	258879.4	4083585	6.58E-05	0.001122	7.61E-04	5.41E-04	6.58E-05	1.12E-03	7.61E-04	5.41E-04	1.00E-05	1.96E-04	1.25E-04	8.75E-05	5.44E-06	1.23E-04	5.96E-05	4.33E-05
456	258866.8	4083586	6.56E-05	0.001119	7.59E-04	5.39E-04	6.56E-05	1.12E-03	7.59E-04	5.39E-04	9.98E-06	1.95E-04	1.25E-04	8.73E-05	5.42E-06	1.23E-04	5.94E-05	4.32E-05
457	258851.7	4083586	6.53E-05	0.001114	7.55E-04	5.37E-04	6.53E-05	1.11E-03	7.55E-04	5.37E-04	9.93E-06	1.95E-04	1.24E-04	8.69E-05	5.40E-06	1.22E-04	5.91E-05	4.29E-05
458	258845.9	4083587	6.53E-05	0.001113	7.55E-04	5.36E-04	6.53E-05	1.11E-03	7.55E-04	5.36E-04	9.93E-06	1.94E-04	1.24E-04	8.69E-05	5.39E-06	1.22E-04	5.91E-05	4.29E-05
459	258919.6	4083518	5.92E-05	0.001009	6.84E-04	4.86E-04	5.92E-05	1.01E-03	6.84E-04	4.86E-04	9.00E-06	1.76E-04	1.12E-04	7.87E-05	4.89E-06	1.11E-04	5.36E-05	3.89E-05
460	258920.4	4083529	6.04E-05	0.00103	6.98E-04	4.96E-04	6.04E-05	1.03E-03	6.98E-04	4.96E-04	9.19E-06	1.80E-04	1.15E-04	8.04E-05	4.99E-06	1.13E-04	5.47E-05	3.97E-05
461	258920.4	4083540	6.16E-05	0.00105	7.12E-04	5.06E-04	6.16E-05	1.05E-03	7.12E-04	5.06E-04	9.36E-06	1.83E-04	1.17E-04	8.19E-05	5.09E-06	1.15E-04	5.57E-05	4.05E-05
462	258920.4	4083552	6.29E-05	0.001072	7.27E-04	5.17E-04	6.29E-05	1.07E-03	7.27E-04	5.17E-04	9.56E-06	1.87E-04	1.19E-04	8.36E-05	5.19E-06	1.18E-04	5.69E-05	4.13E-05
463	258894.5	4083554	6.26E-05	0.001067	7.23E-04	5.14E-04	6.26E-05	1.07E-03	7.23E-04	5.14E-04	9.52E-06	1.86E-04	1.19E-04	8.32E-05	5.17E-06	1.17E-04	5.66E-05	4.11E-05
464	258893.6	4083540	6.1E-05	0.00104	7.05E-04	5.01E-04	6.10E-05	1.04E-03	7.05E-04	5.01E-04	9.28E-06	1.82E-04	1.16E-04	8.11E-05	5.04E-06	1.14E-04	5.52E-05	4.01E-05
465	258893.6	4083530	6E-05	0.001022	6.93E-04	4.92E-04	6.00E-05	1.02E-03	6.93E-04	4.92E-04	9.12E-06	1.79E-04	1.14E-04	7.97E-05	4.95E-06	1.12E-04	5.43E-05	3.94E-05
466	258893.6	4083520	5.89E-05	0.001005	6.81E-04	4.84E-04	5.89E-05	1.00E-03	6.81E-04	4.84E-04	8.96E-06	1.75E-04	1.12E-04	7.84E-05	4.87E-06	1.10E-04	5.33E-05	3.87E-05
467	258874.3	4083519	5.85E-05	0.000997	6.76E-04	4.81E-04	5.85E-05	9.97E-04	6.76E-04	4.81E-04	8.90E-06	1.74E-04	1.11E-04	7.78E-05	4.83E-06	1.09E-04	5.29E-05	3.85E-05
468	258874.3	4083531	5.97E-05	0.001018	6.90E-04	4.90E-04	5.97E-05	1.02E-03	6.90E-04	4.90E-04	9.08E-06	1.78E-04	1.13E-04	7.94E-05	4.93E-06	1.12E-04	5.40E-05	3.92E-05
469	258874.3	4083540	6.06E-05	0.001034	7.01E-04	4.98E-04	6.06E-05	1.03E-03	7.01E-04	4.98E-04	9.22E-06	1.81E-04	1.15E-04	8.06E-05	5.01E-06	1.13E-04	5.49E-05	3.99E-05
470	258873.5	4083553	6.2E-05	0.001057	7.16E-04	5.09E-04	6.20E-05	1.06E-03	7.16E-04	5.09E-04	9.42E-06	1.85E-04	1.18E-04	8.24E-05	5.12E-06	1.16E-04	5.61E-05	4.07E-05
471	258850	4083556	6.19E-05	0.001055	7.15E-04	5.08E-04	6.19E-05	1.06E-03	7.15E-04	5.08E-04	9.41E-06	1.84E-04	1.17E-04	8.23E-05	5.11E-06	1.16E-04	5.60E-05	4.07E-05
472	258846.7	4083544	6.05E-05	0.001031	6.99E-04	4.97E-04	6.05E-05	1.03E-03	6.99E-04	4.97E-04	9.20E-06	1.80E-04	1.15E-04	8.05E-05	5.00E-06	1.13E-04	5.47E-05	3.98E-05
473	258846.7	4083533	5.95E-05	0.001014	6.87E-04	4.88E-04	5.95E-05	1.01E-03	6.87E-04	4.88E-04	9.04E-06	1.77E-04	1.13E-04	7.91E-05	4.91E-06	1.11E-04	5.38E-05	3.91E-05
474	258846.7	4083524	5.85E-05	0.000998	6.77E-04	4.81E-04	5.85E-05	9.98E-04	6.77E-04	4.81E-04	8.90E-06	1.74E-04	1.11E-04	7.79E-05	4.83E-06	1.10E-04	5.30E-05	3.85E-05
475	258828.3	4083520	5.78E-05	0.000985	6.68E-04	4.75E-04	5.78E-05	9.85E-04	6.68E-04	4.75E-04	8.79E-06	1.72E-04	1.10E-04	7.69E-05	4.77E-06	1.08E-04	5.23E-05	3.80E-05
476	258827.4	4083530	5.88E-05	0.001003	6.80E-04	4.83E-04	5.88E-05	1.00E-03	6.80E-04	4.83E-04	8.94E-06	1.75E-04	1.12E-04	7.82E-05	4.86E-06	1.10E-04	5.32E-05	3.87E-05
477	258828.3	4083544	6.02E-05	0.001026	6.95E-04	4.94E-04	6.02E-05	1.03E-03	6.95E-04	4.94E-04	9.15E-06	1.79E-04	1.14E-04	8.00E-05	4.97E-06	1.13E-04	5.45E-05	3.96E-05
478	258828.3	4083555	6.14E-05	0.001047	7.10E-04	5.04E-04	6.14E-05	1.05E-03	7.10E-04	5.04E-04	9.34E-06	1.83E-04	1.16E-04	8.17E-05	5.07E-06	1.15E-04	5.56E-05	4.04E-05
479	258798.1	4083557	6.1E-05	0.00104	7.05E-04	5.01E-04	6.10E-05	1.04E-03	7.05E-04	5.01E-04	9.28E-06	1.82E-04	1.16E-04	8.11E-05	5.04E-06	1.14E-04	5.52E-05	4.01E-05
480	258797.2	4083546	5.98E-05	0.00102	6.91E-04	4.91E-04	5.98E-05	1.02E-03	6.91E-04	4.91E-04	9.09E-06	1.78E-04	1.13E-04	7.95E-05	4.94E-06	1.12E-04	5.41E-05	3.93E-05
481	258798.1	4083533	5.85E-05	0.000998	6.76E-04	4.81E-04	5.85E-05	9.98E-04	6.76E-04	4.81E-04	8.90E-06	1.74E-04	1.11E-04	7.78E-05	4.83E-06	1.09E-04	5.30E-05	3.85E-05
482	258797.2	4083523	5.74E-05	0.000979	6.64E-04	4.72E-04	5.74E-05	9.79E-04	6.64E-04	4.72E-04	8.73E-06	1.71E-04	1.09E-04	7.64E-05	4.74E-06	1.07E-04	5.20E-05	3.77E-05
483	258945.6	4083664	7.94E-05	0.001353	9.17E-04	6.52E-04	7.94E-05	1.35E-03	9.17E-04	6.52E-04	1.21E-05	2.36E-04	1.51E-04	1.06E-04	6.55E-06	1.49E-04	7.18E-05	5.22E-05
484	258943.9	4083651	7.71E-05	0.001315	8.91E-04	6.34E-04	7.71E-05	1.31E-03	8.91E-04	6.34E-04	1.17E-05	2.30E-04	1.46E-04	1.03E-04	6.37E-06	1.44E-04	6.98E-05	5.07E-05
485	258943.1	4083639	7.53E-05	0.001283	8.70E-04	6.18E-04	7.53E-05	1.28E-03	8.70E-04	6.18E-04	1.14E-05	2.24E-04	1.43E-04	1.00E-04	6.22E-06	1.41E-04	6.81E-05	4.95E-05
486	258943.9	4083628	7.37E-05	0.001256	8.52E-04	6.05E-04	7.37E-05	1.26E-03	8.52E-04	6.05E-04	1.12E-05	2.19E-04	1.40E-04	9.80E-05	6.08E-06	1.38E-04	6.67E-05	4.84E-05
487	258970.7	4083661	8.01E-05	0.001366	9.26E-04	6.58E-04	8.01E-05	1.37E-03	9.26E-04	6.58E-04	1.22E-05	2.39E-04	1.52E-04	1.07E-04	6.62E-06	1.50E-04	7.25E-05	5.27E-05
488	258990	4083661	8.15E-05	0.001389	9.42E-04	6.69E-04	8.15E-05	1.39E-03	9.42E-04	6.69E-04	1.24E-05	2.43E-04	1.55E-04	1.08E-04	6.73E-06	1.53E-04	7.38E-05	5.36E-05
489	258972.4	4083649	7.83E-05	0.001335	9.05E-04	6.43E-04	7.83E-05	1.33E-03	9.05E-04	6.43E-04	1.19E-05	2.33E-04	1.49E-04	1.04E-04	6.46E-06	1.46E-04	7.08E-05	5.15E-05
490	258992.5	4083647	7.93E-05	0.001353	9.17E-04	6.52E-04	7.93E-05	1.35E-03	9.17E-04	6.52E-04	1.21E-05	2.36E-04	1.51E-04	1.06E-04	6.55E-06	1.48E-04	7.18E-05	5.22E-05
491	258969	4083635	7.58E-05	0.001292	8.76E-04	6.23E-04	7.58E-05	1.29E-03	8.76E-04	6.23E-04	1.15E-05	2.26E-04	1.44E-04	1.01E-04	6.26E-06	1.42E-04	6.86E-05	4.98E-05
492	258990	4083632	7.66E-05	0.001306	8.85E-04	6.29E-04	7.66E-05	1.31E-03	8.85E-04	6.29E-04	1.16E-05	2.28E-04	1.45E-04	1.02E-04	6.33E-06	1.43E-04	6.93E-05	5.04E-05
493	259017.7	4083660	8.33E-05	0.001419	9.62E-04	6.84E-04	8.33E-05	1.42E-03	9.62E-04	6.84E-04	1.27E-05	2.48E-04	1.58E-04	1.11E-04	6.88E-06	1.56E-04	7.53E-05	5.47E-05
494	259016.8	4083645	8.04E-05	0.001371	9.29E-04	6.61E-04	8.04E-05	1.37E-03	9.29E-04	6.61E-04	1.22E-05	2.39E-04	1.53E-04	1.07E-04	6.64E-06	1.50E-04	7.28E-05	5.29E-05
495	259016.8	4083631	7.81E-05	0.001331	9.03E-04	6.41E-04	7.81E-05	1.33E-03	9.03E-04	6.41E-04	1.19E-05	2.33E-04	1.48E-04	1.04E-04	6.45E-06	1.46E-04	7.07E-05	5.13E-05
496	259035.3	4083631	7.94E-05	0.001353	9.17E-04	6.52E-04	7.94E-05	1.35E-03	9.17E-04	6.52E-04	1.21E-05	2.36E-04	1.51E-04	1.06E-04	6.55E-06	1.49E-04	7.18E-05	5.22E-05
497	259035.3	4083642	8.13E-05	0.001385	9.39E-04	6.67E-04	8.13E-05	1.39E-03	9.39E-04	6.67E-04	1.24E-05	2.42E-04	1.54E-04	1.08E-04	6.71E-06	1.52E-04	7.35E-05	5.34E-05
498	259036.1	4083659	8.45E-05	0.001441	9.77E-04	6.94E-04	8.45E-05	1.44E-03	9.77E-04	6.94E-04	1.29E-05	2.52E-04	1.60E-04	1.12E-04	6.98E-06	1.58E-04	7.65E-05	5.56E-05
499	259064.6	4083659	8.72E-05	0.001487	1.01E-03	7.16E-04	8.72E-05	1.49E-03	1.01E-03	7.16E-04	1.33E-05	2.60E-04	1.65E-04	1.16E-04	7.20E-06	1.63E-04	7.89E-05	5.73E-05
500	259062.1	4083642	8.36E-05	0.001425	9.66E-04	6.87E-04	8.36E-05	1.42E-03	9.66E-04	6.87E-04	1.27E-05	2.49E-04	1.59E-04	1.11E-04	6.90E-06	1.56E-04	7.56E-05	5.49E-05
501	259062.1	4083630	8.13E-05	0.001385	9.39E-04	6.67E-04	8.13E-05	1.39E-03	9.39E-04	6.67E-04	1.24E-05	2.42E-04	1.54E-04	1.08E-04	6.71E-06	1.52E-04	7.35E-05	5.34E-05
502	259083	4083626	8.26E-05	0.001408	9.55E-04	6.78E-04	8.26E-05	1.41E-03	9.55E-04	6.78E-04	1.26E-05	2.46E-04	1.57E-04	1.10E-04	6.82E-06	1.55E-04	7.47E-05	5.43E-05
503	259084.7	4083639	8.53E-05	0.001454	9.85E-04	7.00E-04	8.53E-05	1.45E-03	9.85E-04	7.00E-04	1.30E-05	2.54E-04	1.62E-04	1.13E-04	7.04E-06	1.60E-04	7.72E-05	5.60E-05
504	259084.7	4083657	8.91E-05	0.001519	1.03E-03	7.32E-04	8.91E-05	1.52E-03	1.03E-03	7.32E-04	1.35E-05	2.65E-04	1.69E-04	1.19E-04	7.36E-06	1.67E-04	8.06E-05	5.86E-05
505	259110.7	4083657	9.21E-05	0.001571	1.06E-03	7.57E-04	9.21E-05	1.57E-03	1.06E-03	7.57E-04	1.40E-05	2.74E-04	1.75E-04	1.23E-04	7.61E-06	1.72E-04	8.34E-05	6.06E-05
506	259108.2	4083647	8.94E-05	0.001525	1.03E-03	7.35E-04	8.94E-05	1.52E-03	1.03E-03	7.35E-04	1.36E-05	2.66E-04	1.70E-04	1.19E-04	7.39E-06	1.67E-04	8.09E-05	5.88E-05
507	259106.5	4083636	8.69E-05	0.001482	1.00E-03	7.14E-04	8.69E-05	1.48E-03	1.00E-03	7.14E-04	1.32E-05	2.59E-04	1.65E-04	1.16E-04	7.18E-06	1.63E-04	7.87E-05	5.72E-05
508	259106.5	4083622	8.42E-05	0.001436	9.74E-04	6.92E-04	8.42E-05	1.44E-03	9.74E-04	6.92E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.96E-06	1.58E-04	7.62E-05	5.54E-05
509	258941.4	4083551	6.34E-05	0.00108	7.32E-04	5.20E-04	6.34E-05	1.08E-03	7.32E-04	5.20E-04	9.63E-06	1.89E-04	1.20E-04	8.43E-05	5.23E-06	1.19E-04	5.73E-05	4.16E-05
510	258940.6	4083540	6.21E-05	0.001059	7.18E-04	5.10E-04	6.21E-05	1.06E-03	7.18E-04	5.10E-04	9.44E-06	1.85E-04	1.18E-04	8.26E-05	5.13E-06	1.16E-04	5.62E-05	4.08E-05
511	258941.4	4083530	6.1E-05	0.00104	7.05E-04	5.01E-04	6.10E-05	1.04E-03	7.05E-04	5.01E-04	9.28E-06	1.82E-04	1.16E-04	8.11E-05	5.04E-06	1.14E-04	5.52E-05	4.01E-05
512	258938	4083517	5.95E-05	0.001015	6.88E-04	4.89E-04	5.95E-05	1.01E-03	6.88E-04	4.89E-04	9.05E-06	1.77E-04	1.13E-04	7.91E-05	4.91E-06	1.11E-04	5.39E-05	3.91E-05
513	258969	4083551	6.44E-05	0.001097	7.44E-04	5.29E-04	6.44E-05	1.10E-03	7.44E-04	5.29E-04	9.79E-06	1.92E-04	1.22E-04	8.56E-05	5.32E-06	1.20E-04	5.83E-05	4.23E-05
514	258987.5	4083551	6.51E-05	0.00111	7.52E-04	5.35E-04	6.51E-05	1.11E-03	7.52E-04	5.35E-04	9.90E-06	1.94E-04	1.24E-04	8.66E-05	5.38E-06	1.22E-04	5.89E-05	4.28E-05
515	258991.7	4083541	6.4E-05	0.001092	7.40E-04	5.26E-04	6.40E-05	1.09E-03	7.40E-04	5.26E-04	9.74E-06	1.91E-04	1.22E-04	8.52E-05	5.29E-06	1.20E-04	5.80E-05	4.21E-05
516	258990.8	4083528	6.24E-05	0.001065	7.22E-04	5.13E-04	6.24E-05	1.06E-03	7.22E-04	5.13E-04	9.50E-06	1.86E-04	1.18E-04	8.30E-05	5.16E-06	1.17E-04	5.65E-05	4.10E-05
517	258990.8	4083516	6.11E-05	0.001042	7.07E-04	5.02E-04	6.11E-05	1.04E-03	7.07E-04	5.02E-04	9.30E-06	1.82E-04	1.16E-04	8.13E-05	5.05E-06	1.14E-04	5.53E-05	4.02E-05
518	258968.2	4083516	6.02E-05	0.001027	6.96E-04	4.95E-04	6.02E-05	1.03E-03	6.96E-04	4.95E-04	9.16E-06	1.79E-04	1.14E-04	8.01E-05	4.97E-06	1.13E-04	5.45E-05	3.96E-05
519	258969	4083527	6.14E-05	0.001048	7.10E-04	5.05E-04	6.14E-05	1.05E-03	7.10E-04	5.05E-04	9.34E-06	1.83E-04	1.17E-04	8.17E-05	5.07E-06	1.15E-04	5.56E-05	4.04E-05
520	258966.5	4083538	6.27E-05	0.00107	7.25E-04	5.15E-04	6.27E-05	1.07E-03	7.25E-04	5.15E-04	9.54E-06	1.87E-04	1.19E-04	8.34E-05	5.18E-06	1.17E-04	5.68E-05	4.12E-05
521	259014.3	4083549	6.6E-05	0.001125	7.63E-04	5.42E-04	6.60E-05	1.13E-03	7.63E-04	5.42E-04	1.00E-05	1.97E-04	1.25E-04	8.78E-05	5.45E-06	1.24E-04	5.97E-05	4.34E-05
522	259011.8	4083537	6.44E-05	0.001099	7.45E-04	5.29E-04	6.44E-05	1.10E-03	7.45E-04	5.29E-04	9.80E-06	1.92E-04	1.22E-04	8.57E-05	5.32E-06	1.21E-04	5.83E-05	4.24E-05
523	259011.8	4083528	6.34E-05	0.00108	7.32E-04	5.20E-04	6.34E-05	1.08E-03	7.32E-04	5.20E-04	9.63E-06	1.89E-04	1.20E-04	8.43E-05	5.23E-06	1.19E-04	5.73E-05	4.16E-05
524	259011	4083515	6.19E-05	0.001055	7.15E-04	5.08E-04	6.19E-05	1.05E-03	7.15E-04	5.08E-04	9.41E-06	1.84E-04	1.17E-04	8.23E-05	5.11E-06	1.16E-04	5.60E-05	4.07E-05
525	259033.6	4083548	6.69E-05	0.00114	7.73E-04	5.49E-04	6.69E-05	1.14E-03	7.73E-04	5.49E-04	1.02E-05	1.99E-04	1.27E-04	8.89E-05	5.52E-06	1.25E-04	6.05E-05	4.40E-05
526	259032.7	4083540	6.59E-05	0.001123	7.61E-04	5.41E-04	6.59E-05	1.12E-03	7.61E-04	5.41E-04	1.00E-05	1.96E-04	1.25E-04	8.76E-05	5.44E-06	1.23E-04	5.96E-05	4.33E-05
527	259031.1	4083531	6.46E-05	0.001102	7.47E-04	5.31E-04	6.46E-05	1.10E-03	7.47E-04	5.31E-04	9.83E-06	1.93E-04	1.23E-04	8.60E-05	5.34E-06	1.21E-04	5.85E-05	4.25E-05
528	259033.6	4083520	6.35E-05	0.001082	7.34E-04	5.21E-04	6.35E-05	1.08E-03	7.34E-04	5.21E-04	9.65E-06	1.89E-04	1.20E-04	8.44E-05	5.24E-06	1.19E-04	5.74E-05	4.17E-05
529	259059.6	4083549	6.85E-05	0.001168	7.92E-04	5.63E-04	6.85E-05	1.17E-03	7.92E-04	5.63E-04	1.04E-05	2.04E-04	1.30E-04	9.11E-05	5.66E-06	1.28E-04	6.20E-05	4.50E-05
530	259057	4083537	6.68E-05	0.001139	7.72E-04	5.49E-04	6.68E-05	1.14E-03	7.72E-04	5.49E-04	1.02E-05	1.99E-04	1.27E-04	8.88E-05	5.52E-06	1.25E-04	6.04E-05	4.39E-05
531	259056.2	4083527	6.55E-05	0.001116	7.57E-04	5.38E-04	6.55E-05	1.12E-03	7.57E-04	5.38E-04	9.96E-06	1.95E-04	1.24E-04	8.71E-05	5.41E-06	1.23E-04	5.93E-05	4.30E-05
532	259055.4	4083518	6.43E-05	0.001096	7.43E-04	5.28E-04	6.43E-05	1.10E-03	7.43E-04	5.28E-04	9.78E-06	1.91E-04	1.22E-04	8.55E-05	5.31E-06	1.20E-04	5.82E-05	4.23E-05
533	259079.7	4083549	6.98E-05	0.00119	8.07E-04	5.73E-04	6.98E-05	1.19E-03	8.07E-04	5.73E-04	1.06E-05	2.08E-04	1.32E-04	9.28E-05	5.76E-06	1.31E-04	6.32E-05	4.59E-05
534	259079.7	4083538	6.84E-05	0.001167	7.91E-04	5.62E-04	6.84E-05	1.17E-03	7.91E-04	5.62E-04	1.04E-05	2.04E-04	1.30E-04	9.10E-05	5.65E-06	1.28E-04	6.19E-05	4.50E-05
535	259078.8	4083528	6.69E-05	0.001141	7.74E-04	5.50E-04	6.69E-05	1.14E-03	7.74E-04	5.50E-04	1.02E-05	1.99E-04	1.27E-04	8.90E-05	5.53E-06	1.25E-04	6.06E-05	4.40E-05
536	259078.8	4083516	6.55E-05	0.001116	7.56E-04	5.38E-04	6.55E-05	1.12E-03	7.56E-04	5.38E-04	9.95E-06	1.95E-04	1.24E-04	8.70E-05	5.41E-06	1.22E-04

548	258981.6	4083580	6.86E-05	0.001169	7.93E-04	5.63E-04	6.86E-05	1.17E-03	7.93E-04	5.63E-04	1.04E-05	2.04E-04	1.30E-04	9.12E-05	5.66E-06	1.28E-04	6.21E-05	4.51E-05
549	258998.4	4083580	6.94E-05	0.001182	8.02E-04	5.70E-04	6.94E-05	1.18E-03	8.02E-04	5.70E-04	1.05E-05	2.07E-04	1.32E-04	9.22E-05	5.73E-06	1.30E-04	6.28E-05	4.56E-05
550	259007.6	4083580	6.98E-05	0.00119	8.07E-04	5.73E-04	6.98E-05	1.19E-03	8.07E-04	5.73E-04	1.06E-05	2.08E-04	1.32E-04	9.29E-05	5.77E-06	1.31E-04	6.32E-05	4.59E-05
551	259025.2	4083580	7.07E-05	0.001205	8.17E-04	5.80E-04	7.07E-05	1.20E-03	8.17E-04	5.80E-04	1.07E-05	2.10E-04	1.34E-04	9.40E-05	5.84E-06	1.32E-04	6.40E-05	4.65E-05
552	259038.6	4083579	7.14E-05	0.001216	8.25E-04	5.86E-04	7.14E-05	1.22E-03	8.25E-04	5.86E-04	1.08E-05	2.12E-04	1.35E-04	9.49E-05	5.89E-06	1.34E-04	6.46E-05	4.69E-05
553	259050.3	4083579	7.21E-05	0.001229	8.33E-04	5.92E-04	7.21E-05	1.23E-03	8.33E-04	5.92E-04	1.10E-05	2.15E-04	1.37E-04	9.59E-05	5.95E-06	1.35E-04	6.53E-05	4.74E-05
554	259062.1	4083579	7.29E-05	0.001243	8.43E-04	5.99E-04	7.29E-05	1.24E-03	8.43E-04	5.99E-04	1.11E-05	2.17E-04	1.38E-04	9.70E-05	6.02E-06	1.36E-04	6.60E-05	4.79E-05
555	259078	4083579	7.41E-05	0.001263	8.56E-04	6.08E-04	7.41E-05	1.26E-03	8.56E-04	6.08E-04	1.13E-05	2.21E-04	1.41E-04	9.85E-05	6.12E-06	1.39E-04	6.70E-05	4.87E-05
556	259078.8	4083594	7.65E-05	0.001305	8.84E-04	6.29E-04	7.65E-05	1.30E-03	8.84E-04	6.29E-04	1.16E-05	2.28E-04	1.45E-04	1.02E-04	6.32E-06	1.43E-04	6.92E-05	5.03E-05
557	259065.4	4083595	7.57E-05	0.001291	8.75E-04	6.22E-04	7.57E-05	1.29E-03	8.75E-04	6.22E-04	1.15E-05	2.26E-04	1.44E-04	1.01E-04	6.25E-06	1.42E-04	6.85E-05	4.98E-05
558	259057.9	4083596	7.53E-05	0.001284	8.70E-04	6.18E-04	7.53E-05	1.28E-03	8.70E-04	6.18E-04	1.14E-05	2.24E-04	1.43E-04	1.00E-04	6.22E-06	1.41E-04	6.81E-05	4.95E-05
559	259044.5	4083597	7.45E-05	0.00127	8.61E-04	6.12E-04	7.45E-05	1.27E-03	8.61E-04	6.12E-04	1.13E-05	2.22E-04	1.41E-04	9.90E-05	6.15E-06	1.39E-04	6.74E-05	4.90E-05
560	259033.6	4083598	7.39E-05	0.001259	8.54E-04	6.07E-04	7.39E-05	1.26E-03	8.54E-04	6.07E-04	1.12E-05	2.20E-04	1.40E-04	9.82E-05	6.10E-06	1.38E-04	6.68E-05	4.86E-05
561	259022.7	4083598	7.32E-05	0.001248	8.46E-04	6.01E-04	7.32E-05	1.25E-03	8.46E-04	6.01E-04	1.11E-05	2.18E-04	1.39E-04	9.73E-05	6.04E-06	1.37E-04	6.62E-05	4.81E-05
562	259005.9	4083598	7.22E-05	0.001231	8.35E-04	5.93E-04	7.22E-05	1.23E-03	8.35E-04	5.93E-04	1.10E-05	2.15E-04	1.37E-04	9.60E-05	5.96E-06	1.35E-04	6.53E-05	4.75E-05
563	258994.2	4083598	7.16E-05	0.00122	8.27E-04	5.88E-04	7.16E-05	1.22E-03	8.27E-04	5.88E-04	1.09E-05	2.13E-04	1.36E-04	9.52E-05	5.91E-06	1.34E-04	6.48E-05	4.71E-05
564	258981.6	4083599	7.11E-05	0.001212	8.22E-04	5.84E-04	7.11E-05	1.21E-03	8.22E-04	5.84E-04	1.08E-05	2.12E-04	1.35E-04	9.46E-05	5.87E-06	1.33E-04	6.43E-05	4.67E-05
565	258969	4083600	7.07E-05	0.001205	8.17E-04	5.80E-04	7.07E-05	1.20E-03	8.17E-04	5.80E-04	1.07E-05	2.10E-04	1.34E-04	9.40E-05	5.83E-06	1.32E-04	6.39E-05	4.64E-05
566	258957.3	4083599	7.01E-05	0.001195	8.10E-04	5.76E-04	7.01E-05	1.19E-03	8.10E-04	5.76E-04	1.07E-05	2.09E-04	1.33E-04	9.32E-05	5.79E-06	1.31E-04	6.34E-05	4.61E-05
567	258950.6	4083599	6.98E-05	0.00119	8.07E-04	5.73E-04	6.98E-05	1.19E-03	8.07E-04	5.73E-04	1.06E-05	2.08E-04	1.32E-04	9.28E-05	5.77E-06	1.31E-04	6.32E-05	4.59E-05
568	258940.6	4083600	6.97E-05	0.001188	8.05E-04	5.72E-04	6.97E-05	1.19E-03	8.05E-04	5.72E-04	1.06E-05	2.08E-04	1.32E-04	9.27E-05	5.75E-06	1.30E-04	6.31E-05	4.58E-05
569	258720.9	4083525	5.63E-05	0.00096	6.51E-04	4.62E-04	5.63E-05	9.60E-04	6.51E-04	4.62E-04	8.56E-06	1.68E-04	1.07E-04	7.49E-05	4.65E-06	1.05E-04	5.10E-05	3.70E-05
570	258702.9	4083525	5.6E-05	0.000955	6.47E-04	4.60E-04	5.60E-05	9.55E-04	6.47E-04	4.60E-04	8.51E-06	1.67E-04	1.06E-04	7.45E-05	4.62E-06	1.05E-04	5.07E-05	3.68E-05
571	258622.5	4083542	5.61E-05	0.000957	6.49E-04	4.61E-04	5.61E-05	9.57E-04	6.49E-04	4.61E-04	8.54E-06	1.67E-04	1.07E-04	7.47E-05	4.64E-06	1.05E-04	5.08E-05	3.69E-05
572	258457.4	4083634	6.46E-05	0.001101	7.47E-04	5.31E-04	6.46E-05	1.10E-03	7.47E-04	5.31E-04	9.82E-06	1.92E-04	1.23E-04	8.59E-05	5.33E-06	1.21E-04	5.85E-05	4.25E-05
573	258388.9	4083538	5.37E-05	0.000916	6.21E-04	4.41E-04	5.37E-05	9.16E-04	6.21E-04	4.41E-04	8.17E-06	1.60E-04	1.02E-04	7.14E-05	4.44E-06	1.01E-04	4.86E-05	3.53E-05
574	258372.7	4083540	5.37E-05	0.000916	6.21E-04	4.41E-04	5.37E-05	9.16E-04	6.21E-04	4.41E-04	8.17E-06	1.60E-04	1.02E-04	7.14E-05	4.44E-06	1.01E-04	4.86E-05	3.53E-05
575	258435.5	4083663	6.82E-05	0.001162	7.88E-04	5.60E-04	6.82E-05	1.16E-03	7.88E-04	5.60E-04	1.04E-05	2.03E-04	1.29E-04	9.07E-05	5.63E-06	1.28E-04	6.17E-05	4.48E-05
576	258435.5	4083648	6.61E-05	0.001127	7.64E-04	5.43E-04	6.61E-05	1.13E-03	7.64E-04	5.43E-04	1.01E-05	1.97E-04	1.25E-04	8.79E-05	5.46E-06	1.24E-04	5.98E-05	4.35E-05
577	258306.6	4084064	0.000137	0.002332	1.58E-03	1.12E-03	1.37E-04	2.33E-03	1.58E-03	1.12E-03	2.08E-05	4.07E-04	2.60E-04	1.82E-04	1.13E-05	2.56E-04	1.24E-04	8.99E-05
578	258298.9	4084051	0.000133	0.002272	1.54E-03	1.09E-03	1.33E-04	2.27E-03	1.54E-03	1.09E-03	2.03E-05	3.97E-04	2.53E-04	1.77E-04	1.10E-05	2.49E-04	1.21E-04	8.76E-05
579	258452.9	4084020	0.000151	0.002573	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E-03	2.29E-05	4.49E-04	2.86E-04	2.01E-04	1.25E-05	2.82E-04	1.37E-04	9.92E-05
580	258456.4	4084028	0.000154	0.002621	1.78E-03	1.26E-03	1.54E-04	2.62E-03	1.78E-03	1.26E-03	2.34E-05	4.58E-04	2.92E-04	2.04E-04	1.27E-05	2.88E-04	1.39E-04	1.01E-04
581	258534.2	4083931	0.000132	0.002251	1.53E-03	1.08E-03	1.32E-04	2.25E-03	1.53E-03	1.08E-03	2.01E-05	3.93E-04	2.51E-04	1.76E-04	1.09E-05	2.47E-04	1.19E-04	8.68E-05
582	258533.4	4083942	0.000135	0.00231	1.57E-03	1.11E-03	1.35E-04	2.31E-03	1.57E-03	1.11E-03	2.06E-05	4.03E-04	2.57E-04	1.80E-04	1.12E-05	2.54E-04	1.23E-04	8.91E-05
583	258620.6	4084198	0.000264	0.004499	3.05E-03	2.17E-03	2.64E-04	4.50E-03	3.05E-03	2.17E-03	4.01E-05	7.86E-04	5.01E-04	3.51E-04	2.18E-05	4.94E-04	2.39E-04	1.73E-04
584	258623.2	4084238	0.00028	0.004772	3.23E-03	2.30E-03	2.80E-04	4.77E-03	3.23E-03	2.30E-03	4.26E-05	8.33E-04	5.31E-04	3.72E-04	2.31E-05	5.24E-04	2.53E-04	1.84E-04
585	258611.2	4084238	0.000274	0.004664	3.16E-03	2.25E-03	2.74E-04	4.66E-03	3.16E-03	2.25E-03	4.16E-05	8.15E-04	5.19E-04	3.64E-04	2.26E-05	5.12E-04	2.48E-04	1.80E-04
586	258603.5	4084238	0.00027	0.004597	3.12E-03	2.21E-03	2.70E-04	4.60E-03	3.12E-03	2.21E-03	4.10E-05	8.03E-04	5.12E-04	3.59E-04	2.23E-05	5.05E-04	2.44E-04	1.77E-04
587	258541.1	4084256	0.000244	0.004165	2.82E-03	2.01E-03	2.44E-04	4.17E-03	2.82E-03	2.01E-03	3.71E-05	7.28E-04	4.64E-04	3.25E-04	2.02E-05	4.57E-04	2.21E-04	1.61E-04
588	258536.8	4084268	0.000245	0.004177	2.83E-03	2.01E-03	2.45E-04	4.18E-03	2.83E-03	2.01E-03	3.73E-05	7.30E-04	4.65E-04	3.26E-04	2.02E-05	4.58E-04	2.22E-04	1.61E-04
589	258524	4084270	0.00024	0.004088	2.77E-03	1.97E-03	2.40E-04	4.09E-03	2.77E-03	1.97E-03	3.65E-05	7.14E-04	4.55E-04	3.19E-04	1.98E-05	4.49E-04	2.17E-04	1.58E-04
590	258517.1	4084269	0.000237	0.004034	2.73E-03	1.94E-03	2.37E-04	4.03E-03	2.73E-03	1.94E-03	3.60E-05	7.05E-04	4.49E-04	3.15E-04	1.95E-05	4.43E-04	2.14E-04	1.56E-04
591	258427.3	4084298	0.000204	0.003482	2.36E-03	1.68E-03	2.04E-04	3.48E-03	2.36E-03	1.68E-03	3.11E-05	6.08E-04	3.88E-04	2.72E-04	1.69E-05	3.82E-04	1.85E-04	1.34E-04
592	258421.3	4084291	0.000201	0.003433	2.33E-03	1.65E-03	2.01E-04	3.43E-03	2.33E-03	1.65E-03	3.06E-05	6.00E-04	3.82E-04	2.68E-04	1.66E-05	3.77E-04	1.82E-04	1.32E-04
593	258415.3	4084284	0.000199	0.003385	2.30E-03	1.63E-03	1.99E-04	3.39E-03	2.30E-03	1.63E-03	3.02E-05	5.91E-04	3.77E-04	2.64E-04	1.64E-05	3.72E-04	1.80E-04	1.31E-04
594	258416.2	4084270	0.000197	0.003363	2.28E-03	1.62E-03	1.97E-04	3.36E-03	2.28E-03	1.62E-03	3.00E-05	5.87E-04	3.74E-04	2.62E-04	1.63E-05	3.69E-04	1.79E-04	1.30E-04
595	258418.7	4084261	0.000197	0.003357	2.28E-03	1.62E-03	1.97E-04	3.36E-03	2.28E-03	1.62E-03	2.99E-05	5.86E-04	3.74E-04	2.62E-04	1.63E-05	3.68E-04	1.78E-04	1.29E-04
596	258800.3	4084395	0.000455	0.007756	5.26E-03	3.74E-03	4.55E-04	7.76E-03	5.26E-03	3.74E-03	6.92E-05	1.35E-03	8.63E-04	6.05E-04	3.76E-05	8.51E-04	4.12E-04	2.99E-04
597	258789.2	4084396	0.000444	0.007561	5.13E-03	3.64E-03	4.44E-04	7.56E-03	5.13E-03	3.64E-03	6.74E-05	1.32E-03	8.42E-04	5.90E-04	3.66E-05	8.30E-04	4.01E-04	2.92E-04
598	258778.9	4084394	0.000434	0.007394	5.01E-03	3.56E-03	4.34E-04	7.39E-03	5.01E-03	3.56E-03	6.60E-05	1.29E-03	8.23E-04	5.77E-04	3.58E-05	8.12E-04	3.93E-04	2.85E-04
599	258772.9	4084352	0.000418	0.007122	4.83E-03	3.43E-03	4.18E-04	7.12E-03	4.83E-03	3.43E-03	6.35E-05	1.24E-03	7.93E-04	5.56E-04	3.45E-05	7.82E-04	3.78E-04	2.75E-04
600	258327.9	4084836	0.000124	0.002106	1.43E-03	1.01E-03	1.24E-04	2.11E-03	1.43E-03	1.01E-03	1.88E-05	3.68E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.12E-05
601	258318.1	4084837	0.000122	0.002081	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.86E-05	3.63E-04	2.32E-04	1.62E-04	1.01E-05	2.28E-04	1.10E-04	8.02E-05
602	258326.5	4084949	0.000104	0.001767	1.20E-03	8.51E-04	1.04E-04	1.77E-03	1.20E-03	8.51E-04	1.58E-05	3.09E-04	1.97E-04	1.38E-04	8.56E-06	1.94E-04	9.38E-05	6.81E-05
603	258327.8	4084955	0.000103	0.001751	1.19E-03	8.44E-04	1.03E-04	1.75E-03	1.19E-03	8.44E-04	1.56E-05	3.06E-04	1.95E-04	1.37E-04	8.48E-06	1.92E-04	9.29E-05	6.75E-05
604	258329.2	4084959	0.000102	0.00174	1.18E-03	8.38E-04	1.02E-04	1.74E-03	1.18E-03	8.38E-04	1.55E-05	3.04E-04	1.94E-04	1.36E-04	8.43E-06	1.91E-04	9.24E-05	6.71E-05
605	258328.3	4084967	0.000101	0.001715	1.16E-03	8.26E-04	1.01E-04	1.71E-03	1.16E-03	8.26E-04	1.53E-05	3.00E-04	1.91E-04	1.34E-04	8.31E-06	1.88E-04	9.10E-05	6.61E-05
606	258330.1	4084975	9.95E-05	0.001696	1.15E-03	8.17E-04	9.95E-05	1.70E-03	1.15E-03	8.17E-04	1.51E-05	2.96E-04	1.89E-04	1.32E-04	8.22E-06	1.86E-04	9.00E-05	6.54E-05
607	257934.2	4085112	6.08E-05	0.001037	7.03E-04	4.99E-04	6.08E-05	1.04E-03	7.03E-04	4.99E-04	9.24E-06	1.81E-04	1.15E-04	8.09E-05	5.02E-06	1.14E-04	5.50E-05	4.00E-05
608	257924.7	4085110	6.06E-05	0.001033	7.00E-04	4.98E-04	6.06E-05	1.03E-03	7.00E-04	4.98E-04	9.21E-06	1.80E-04	1.15E-04	8.06E-05	5.00E-06	1.13E-04	5.48E-05	3.98E-05
609	257916.3	4085110	6.02E-05	0.001026	6.96E-04	4.94E-04	6.02E-05	1.03E-03	6.96E-04	4.94E-04	9.15E-06	1.79E-04	1.14E-04	8.01E-05	4.97E-06	1.13E-04	5.45E-05	3.96E-05
610	257910	4085112	5.98E-05	0.001019	6.91E-04	4.91E-04	5.98E-05	1.02E-03	6.91E-04	4.91E-04	9.09E-06	1.78E-04	1.13E-04	7.95E-05	4.94E-06	1.12E-04	5.41E-05	3.93E-05
611	259321.5	4084054	0.000392	0.006679	4.53E-03	3.22E-03	3.92E-04	6.68E-03	4.53E-03	3.22E-03	5.96E-05	1.17E-03	7.43E-04	5.21E-04	3.24E-05	7.33E-04	3.55E-04	2.58E-04
612	259326.7	4084068	0.000397	0.006768	4.59E-03	3.26E-03	3.97E-04	6.77E-03	4.59E-03	3.26E-03	6.04E-05	1.18E-03	7.53E-04	5.28E-04	3.28E-05	7.43E-04	3.59E-04	2.61E-04
613	259333.9	4084081	0.0004	0.00682	4.62E-03	3.29E-03	4.00E-04	6.82E-03	4.62E-03	3.29E-03	6.08E-05	1.19E-03	7.59E-04	5.32E-04	3.30E-05	7.49E-04	3.62E-04	2.63E-04
614	259337	4084094	0.000406	0.006917	4.69E-03	3.33E-03	4.06E-04	6.92E-03	4.69E-03	3.33E-03	6.17E-05	1.21E-03	7.70E-04	5.40E-04	3.35E-05	7.59E-04	3.67E-04	2.67E-04
615	259341.6	4084110	0.000412	0.007032	4.77E-03	3.39E-03	4.12E-04	7.03E-03	4.77E-03	3.39E-03	6.27E-05	1.23E-03	7.83E-04	5.49E-04	3.41E-05	7.72E-04	3.73E-04	2.71E-04
616	259347.3	4084130	0.000422	0.007197	4.88E-03	3.47E-03	4.22E-04	7.20E-03	4.88E-03	3.47E-03	6.42E-05	1.26E-03	8.01E-04	5.61E-04	3.49E-05	7.90E-04	3.82E-04	2.78E-04
617	259350.9	4084143	0.000429	0.007321	4.96E-03	3.53E-03	4.29E-04	7.32E-03	4.96E-03	3.53E-03	6.53E-05	1.28E-03	8.15E-04	5.71E-04	3.55E-05	8.04E-04	3.89E-04	2.82E-04
618	259352.4	4084152	0.000436	0.00743	5.04E-03	3.58E-03	4.36E-04	7.43E-03	5.04E-03	3.58E-03	6.63E-05	1.30E-03	8.27E-04	5.80E-04	3.60E-05	8.16E-04	3.94E-04	2.86E-04
619	259357	4084175	0.000453	0.007731	5.24E-03	3.72E-03	4.53E-04	7.73E-03	5.24E-03	3.72E-03	6.90E-05	1.35E-03	8.60E-04	6.03E-04	3.74E-05	8.49E-04	4.10E-04	2.98E-04
620	259357	4084193	0.000472	0.008053	5.46E-03	3.88E-03	4.72E-04	8.05E-03	5.46E-03	3.88E-03	7.18E-05	1.41E-03	8.96E-04	6.28E-04	3.90E-05	8.84E-04	4.27E-04	3.11E-04
621	259358.6	4084209	0.00049	0.008359	5.67E-03	4.03E-03	4.90E-04	8.36E-03	5.67E-03	4.03E-03	7.46E-05	1.46E-03	9.30E-04	6.52E-04	4.05E-05	9.18E-04	4.44E-04	3.22E-04
622	259359.6	4084221	0.000505	0.008608	5.84E-03	4.15E-03	5.05E-04	8.61E-03	5.84E-03	4.15E-03	7.68E-05	1.50E-03	9.58E-04	6.71E-04	4.17E-05	9.45E-04	4.57E-04	3.32E-04
623	259362.7	4084239	0.000527	0.008993	6.10E-03	4.33E-03	5.27E-04	8.99E-03	6.10E-03	4.33E-03	8.02E-05	1.57E-03	1.00E-03	7.02E-04	4.36E-05	9.87E-04	4.77E-04	3.47E-04
624	259376.6	4084249	0.00053	0.009033	6.12E-03	4.35E-03	5.30E-04	9.03E-03	6.12E-03	4.35E-03	8.06E-05	1.58E-03	1.01E-03	7.05E-04	4.38E-05	9.92E-04	4.80E-04	3.48E-04
625	259404.4	4084254	0.000501	0.008547	5.79E-03	4.12E-03	5.01E-04	8.55E-03	5.79E-03	4.12E-03	7.62E-05	1.49E-03	9.51E-04	6.67E-04	4.14E-05	9.38E-04	4.54E-04	3.30E-04
626	259440.4	4084254	0.00045	0.007673	5.20E-03	3.70E-03	4.50E-04	7.67E-03	5.20E-03	3.70E-03	6.84E-05	1.34E-03	8.54E-04	5.99E-04	3.72E-05	8.42E-04	4.07E-04	2.96E-04
627	259473.9	4084252	0.000404	0.006889	4.67E-03	3.32E-03	4.04E-04	6.89E-03	4.67E-03	3.32E-03	6.14E-05	1.20E-03	7.67E-04	5.37E-04	3.34E-05	7.56E-04	3.66E-04	2.66E-04
628	259493.9	4084250	0.000379	0.006456	4.38E-03	3.11E-03	3.79E-04	6.46E-03	4.38E-03	3.11E-03	5.76E-05	1.13E-03	7.18E-04	5.04E-04	3.13E-05	7.09E-04	3.43E-04	2.49E-04
629	259528.4	4084247	0.00034	0.005795	3.93E-03	2.79E-03	3.40E-04	5.79E-03	3.93E-03	2.79E-03	5.17E-05	1.01E-03	6.45E-04	4.52E-04	2.81E-05	6.36E-04	3.08E-04	2.23E-04
630	259543.4	4084246	0.000325	0.005536	3.75E-03	2.67E-03	3.25E-04	5.54E-03	3.75E-03	2.67E-03	4.94E-05	9.67E-04	6.16E-04	4.32E-04	2.68E-05	6.08E-04	2.94E-04	2.13E-04
631	259579.4	4084242	0.000292	0.004975	3.37E-03	2.40E-03	2.92E-04	4.97E-03	3.37E-03	2.40E-03	4.44E-05	8.69E-04	5.54E-04	3.88E-04	2.41E-05	5.46E-04	2.64E-04	1.92E-04
632	259595.9	4084239	0.000278	0.004746	3.22E-03	2.29E-03	2.78E-04	4.75E-03	3.22E-03	2.29E-03	4.23E-05	8.29E-04	5.28E-04	3.70E-04	2.30E-05	5.21E-04	2.52E-04	1.83E-04
633	259595.9	4084221	0.000279	0.004754	3.22E-03	2.29E-03	2.79E-04	4.75E-03	3.22E-03	2.29E-03	4.24E-05	8.30E-04	5.29E-04	3.71E-04	2.30E-05	5.22E-04	2.52E-04	1.83E-04
634	259596.9	4084206	0.000278	0.004739	3.21E-03	2.28E-03	2.78E-04	4.74E-03	3.21E-03	2.28E-03	4.23E-05	8.28E-04	5.27E-04	3.70E-04	2.30E-05	5.20E-04	2.52E-04	1.83E-04
635	259595.3	4084188	0.000278	0.004746	3.22E-03	2.29E-03	2.78E-04	4.75E-03	3.22E-03	2.29E-03	4.23E-05	8.29E-04	5.28E-04	3.70E-04	2.30E-05	5.21E-04	2.52E-04	1.83E-04
636	259595.3	4084169	0.000277	0.00472	3.20E-03	2.27E-03	2.77E-04	4.72E-03	3.20E-03	2.27E-03	4.21E-05	8.24E-04	5.25E-04	3.68E-04	2.29E-05	5.18E-04	2.51E-04	1.82E-04
637	259559.3	4084204	0.000308	0.005246	3.56E-03	2.53E-03	3.08E-04	5.25E-03	3.56E-03	2.53E-03	4.68E-05	9.16E-04	5.84E-04	4.09E-04	2.54E-05	5.76E-04	2.78E-04	2.02E-04
638	259540.8	4084206	0.000324	0.005523	3.74E-03	2.66E-03	3.24E-04	5.52E-03	3.74E-03	2.66E-03	4.93E-05	9.65E-04	6.15E-04	4.31E-04	2.68E-05	6.06E-04	2.93E-04	2.13E-04
639	259531	4084206	0.000333	0.005675	3.85E-03	2.73E-03	3.33E-04	5.67E-03	3.85E-03	2.73E-03	5.06E-05	9.91E-04	6.32E-04	4.43E-04	2.75E-05	6.23E-04	3.01E-04	2.19E-04
640	259512.5	4084207	0.00035	0.005975	4.05E-03	2.88E-03	3.50E-04	5.98E-03	4.05E-03	2.88E-03	5.33E-05	1.04E-03	6.65E-04	4.66E-04	2.89E-05	6.56E-04	3.17E-04	2.30E-04
641	259497	4084208	0.000366	0.006236	4.23E-03	3.00E-03	3.66E-04	6.24E-03	4.23E-03	3.00E-03	5.56E-05	1.09E-03	6.94E-04	4.86E-04	3.02E-05	6.85E-04	3.31E-04	2.40E-04
642	259485.2	4084208	0.000378	0.006443	4.37E-03	3.10E-03	3.78E-04	6.44E-03	4.37E-03	3.10E-03	5.75E-05	1.13E-03	7.17E-04	5.03E-04	3.12E-05	7.07E-04	3.42E-04	2.48E-04
643	259464.6	4084208	0.000399	0.006804	4.61E-03	3.28E-03	3.99E-04	6.80E-03	4.61E-03	3.28E-03	6.07E-05	1.19E-03	7.57E-04	5.31E-04	3.30E-05	7.47E-04	3.61E-04	2.62E-04
644	259454.3	4084209	0.00041	0.00699	4.74E-03	3.37E-03	4.10E-04	6.99E-03	4.74E-03	3.37E-03	6.23E-05	1.22E-03	7.78E-04	5.45E-04	3.39E-05	7.67E-04	3.71E-04	2.70E-04
645	259433.2	4084209	0.000432	0.007363	4.99E-03	3.55E-03	4.32E-04	7.36E-03	4.99E-03	3.55E-03	6.57E-05	1.29E-03	8.19E-04	5.74E-04	3.57E-05	8.08E-04	3.91E-04	2.84E-04
646	259411.1	4084211	0.000455	0.007749	5.25E-03	3.73E-03	4.55E-04	7.75E-03	5.25E-03	3.73E-03	6.91E-05	1.35E-03	8.62E-04	6.04E-04	3.75E-05	8.51E-04	4.11E-04	2.99E-04
647	259397.7	4084210	0.000465	0.007929	5.38E-03	3.82E-03	4.65E-04	7.93E-03	5.38E-03	3.82E-03	7.07E-05

658	259548.5	4084184	0.000314	0.005352	3.63E-03	2.58E-03		3.14E-04	5.35E-03	3.63E-03	2.58E-03		4.77E-05	9.35E-04	5.96E-04	4.17E-04		2.59E-05	5.87E-04	2.84E-04	2.06E-04
659	259560.9	4084184	0.000304	0.005182	3.51E-03	2.50E-03		3.04E-04	5.18E-03	3.51E-03	2.50E-03		4.62E-05	9.05E-04	5.77E-04	4.04E-04		2.51E-05	5.69E-04	2.75E-04	2.00E-04
660	259520.7	4084143	0.000324	0.005519	3.74E-03	2.66E-03		3.24E-04	5.52E-03	3.74E-03	2.66E-03		4.92E-05	9.64E-04	6.14E-04	4.31E-04		2.67E-05	6.06E-04	2.93E-04	2.13E-04
661	259504.8	4084143	0.000335	0.005704	3.87E-03	2.75E-03		3.35E-04	5.70E-03	3.87E-03	2.75E-03		5.09E-05	9.96E-04	6.35E-04	4.45E-04		2.76E-05	6.26E-04	3.03E-04	2.20E-04
662	259484.2	4084142	0.000348	0.00594	4.03E-03	2.86E-03		3.48E-04	5.94E-03	4.03E-03	2.86E-03		5.30E-05	1.04E-03	6.61E-04	4.63E-04		2.88E-05	6.52E-04	3.15E-04	2.29E-04
663	259471.3	4084144	0.000358	0.006107	4.14E-03	2.94E-03		3.58E-04	6.11E-03	4.14E-03	2.94E-03		5.45E-05	1.07E-03	6.80E-04	4.76E-04		2.96E-05	6.70E-04	3.24E-04	2.35E-04
664	259456.4	4084145	0.000368	0.006281	4.26E-03	3.03E-03		3.68E-04	6.28E-03	4.26E-03	3.03E-03		5.60E-05	1.10E-03	6.99E-04	4.90E-04		3.04E-05	6.89E-04	3.33E-04	2.42E-04
665	259438.4	4084146	0.000381	0.006496	4.40E-03	3.13E-03		3.81E-04	6.50E-03	4.40E-03	3.13E-03		5.79E-05	1.13E-03	7.23E-04	5.07E-04		3.15E-05	7.13E-04	3.45E-04	2.50E-04
666	259420.3	4084147	0.000393	0.006698	4.54E-03	3.23E-03		3.93E-04	6.70E-03	4.54E-03	3.23E-03		5.97E-05	1.17E-03	7.45E-04	5.22E-04		3.24E-05	7.35E-04	3.56E-04	2.58E-04
667	259405.4	4084148	0.000402	0.006854	4.65E-03	3.30E-03		4.02E-04	6.85E-03	4.65E-03	3.30E-03		6.11E-05	1.20E-03	7.63E-04	5.35E-04		3.32E-05	7.52E-04	3.64E-04	2.64E-04
668	259390.5	4084148	0.000411	0.006999	4.75E-03	3.37E-03		4.11E-04	7.00E-03	4.75E-03	3.37E-03		6.24E-05	1.22E-03	7.79E-04	5.46E-04		3.39E-05	7.68E-04	3.72E-04	2.70E-04
669	259385.3	4084126	0.000397	0.006768	4.59E-03	3.26E-03		3.97E-04	6.77E-03	4.59E-03	3.26E-03		6.04E-05	1.18E-03	7.53E-04	5.28E-04		3.28E-05	7.43E-04	3.59E-04	2.61E-04
670	259401.8	4084126	0.000388	0.006614	4.48E-03	3.19E-03		3.88E-04	6.61E-03	4.48E-03	3.19E-03		5.90E-05	1.16E-03	7.36E-04	5.16E-04		3.20E-05	7.26E-04	3.51E-04	2.55E-04
671	259412.1	4084125	0.000382	0.006505	4.41E-03	3.13E-03		3.82E-04	6.51E-03	4.41E-03	3.13E-03		5.80E-05	1.14E-03	7.24E-04	5.07E-04		3.15E-05	7.14E-04	3.45E-04	2.51E-04
672	259425.5	4084124	0.000373	0.006368	4.32E-03	3.07E-03		3.73E-04	6.37E-03	4.32E-03	3.07E-03		5.68E-05	1.11E-03	7.09E-04	4.97E-04		3.08E-05	6.99E-04	3.38E-04	2.46E-04
673	259445	4084123	0.000362	0.006169	4.18E-03	2.97E-03		3.62E-04	6.17E-03	4.18E-03	2.97E-03		5.50E-05	1.08E-03	6.87E-04	4.81E-04		2.99E-05	6.77E-04	3.27E-04	2.38E-04
674	259463.1	4084121	0.000351	0.005976	4.05E-03	2.88E-03		3.51E-04	5.98E-03	4.05E-03	2.88E-03		5.33E-05	1.04E-03	6.65E-04	4.66E-04		2.89E-05	6.56E-04	3.17E-04	2.30E-04
675	259474.9	4084121	0.000344	0.005857	3.97E-03	2.82E-03		3.44E-04	5.86E-03	3.97E-03	2.82E-03		5.22E-05	1.02E-03	6.52E-04	4.57E-04		2.84E-05	6.43E-04	3.11E-04	2.26E-04
676	259485.7	4084121	0.000337	0.005743	3.89E-03	2.77E-03		3.37E-04	5.74E-03	3.89E-03	2.77E-03		5.12E-05	1.00E-03	6.39E-04	4.48E-04		2.78E-05	6.30E-04	3.05E-04	2.21E-04
677	259489.8	4084120	0.000334	0.005692	3.86E-03	2.74E-03		3.34E-04	5.69E-03	3.86E-03	2.74E-03		5.08E-05	9.94E-04	6.33E-04	4.44E-04		2.76E-05	6.25E-04	3.02E-04	2.19E-04
678	259504.2	4084120	0.000325	0.005543	3.76E-03	2.67E-03		3.25E-04	5.54E-03	3.76E-03	2.67E-03		4.94E-05	9.68E-04	6.17E-04	4.32E-04		2.69E-05	6.08E-04	2.94E-04	2.14E-04
679	259520.7	4084119	0.000315	0.005368	3.64E-03	2.59E-03		3.15E-04	5.37E-03	3.64E-03	2.59E-03		4.79E-05	9.38E-04	5.97E-04	4.19E-04		2.60E-05	5.89E-04	2.85E-04	2.07E-04
680	259378.1	4084082	0.000373	0.006352	4.31E-03	3.06E-03		3.73E-04	6.35E-03	4.31E-03	3.06E-03		5.67E-05	1.11E-03	7.07E-04	4.96E-04		3.08E-05	6.97E-04	3.37E-04	2.45E-04
681	259392	4084082	0.000365	0.006216	4.21E-03	3.00E-03		3.65E-04	6.22E-03	4.21E-03	3.00E-03		5.54E-05	1.09E-03	6.92E-04	4.85E-04		3.01E-05	6.82E-04	3.30E-04	2.40E-04
682	259400.3	4084081	0.00036	0.006131	4.16E-03	2.95E-03		3.60E-04	6.13E-03	4.16E-03	2.95E-03		5.47E-05	1.07E-03	6.82E-04	4.78E-04		2.97E-05	6.73E-04	3.25E-04	2.36E-04
683	259418.3	4084081	0.00035	0.005974	4.05E-03	2.88E-03		3.50E-04	5.97E-03	4.05E-03	2.88E-03		5.33E-05	1.04E-03	6.65E-04	4.66E-04		2.89E-05	6.56E-04	3.17E-04	2.30E-04
684	259440.9	4084080	0.000339	0.005773	3.91E-03	2.78E-03		3.39E-04	5.77E-03	3.91E-03	2.78E-03		5.15E-05	1.01E-03	6.42E-04	4.50E-04		2.80E-05	6.34E-04	3.06E-04	2.23E-04
685	259452.8	4084078	0.000332	0.00566	3.84E-03	2.73E-03		3.32E-04	5.66E-03	3.84E-03	2.73E-03		5.05E-05	9.89E-04	6.30E-04	4.42E-04		2.74E-05	6.21E-04	3.00E-04	2.18E-04
686	259467.2	4084077	0.000324	0.005532	3.75E-03	2.67E-03		3.24E-04	5.53E-03	3.75E-03	2.67E-03		4.93E-05	9.66E-04	6.16E-04	4.31E-04		2.68E-05	6.07E-04	2.94E-04	2.13E-04
687	259487.3	4084076	0.000314	0.005352	3.63E-03	2.58E-03		3.14E-04	5.35E-03	3.63E-03	2.58E-03		4.77E-05	9.35E-04	5.96E-04	4.18E-04		2.59E-05	5.88E-04	2.84E-04	2.06E-04
688	259504.8	4084075	0.000305	0.005203	3.53E-03	2.51E-03		3.05E-04	5.20E-03	3.53E-03	2.51E-03		4.64E-05	9.09E-04	5.79E-04	4.06E-04		2.52E-05	5.71E-04	2.76E-04	2.01E-04
689	259524.3	4084075	0.000295	0.005035	3.41E-03	2.43E-03		2.95E-04	5.04E-03	3.41E-03	2.43E-03		4.49E-05	8.79E-04	5.60E-04	3.93E-04		2.44E-05	5.53E-04	2.67E-04	1.94E-04
690	259511.4	4084044	0.000289	0.004927	3.34E-03	2.37E-03		2.89E-04	4.93E-03	3.34E-03	2.37E-03		4.39E-05	8.61E-04	5.48E-04	3.84E-04		2.39E-05	5.41E-04	2.62E-04	1.90E-04
691	259492.9	4084045	0.000297	0.005067	3.44E-03	2.44E-03		2.97E-04	5.07E-03	3.44E-03	2.44E-03		4.52E-05	8.85E-04	5.64E-04	3.95E-04		2.45E-05	5.56E-04	2.69E-04	1.95E-04
692	259469.8	4084046	0.000308	0.005246	3.56E-03	2.53E-03		3.08E-04	5.25E-03	3.56E-03	2.53E-03		4.68E-05	9.16E-04	5.84E-04	4.09E-04		2.54E-05	5.76E-04	2.78E-04	2.02E-04
693	259448.7	4084047	0.000318	0.005413	3.67E-03	2.61E-03		3.18E-04	5.41E-03	3.67E-03	2.61E-03		4.83E-05	9.46E-04	6.02E-04	4.22E-04		2.62E-05	5.94E-04	2.87E-04	2.09E-04
694	259421.4	4084048	0.000331	0.005635	3.82E-03	2.71E-03		3.31E-04	5.64E-03	3.82E-03	2.71E-03		5.03E-05	9.84E-04	6.27E-04	4.40E-04		2.73E-05	6.19E-04	2.99E-04	2.17E-04
695	259397.2	4084050	0.000344	0.00586	3.97E-03	2.82E-03		3.44E-04	5.86E-03	3.97E-03	2.82E-03		5.23E-05	1.02E-03	6.52E-04	4.57E-04		2.84E-05	6.43E-04	3.11E-04	2.26E-04
696	259378.1	4084052	0.000355	0.006047	4.10E-03	2.91E-03		3.55E-04	6.05E-03	4.10E-03	2.91E-03		5.39E-05	1.06E-03	6.73E-04	4.72E-04		2.93E-05	6.64E-04	3.21E-04	2.33E-04
697	259363.7	4084052	0.000363	0.006191	4.20E-03	2.98E-03		3.63E-04	6.19E-03	4.20E-03	2.98E-03		5.52E-05	1.08E-03	6.89E-04	4.83E-04		3.00E-05	6.80E-04	3.29E-04	2.39E-04
698	259464.1	4084189	0.000389	0.006639	4.50E-03	3.20E-03		3.89E-04	6.64E-03	4.50E-03	3.20E-03		5.92E-05	1.16E-03	7.39E-04	5.18E-04		3.22E-05	7.29E-04	3.52E-04	2.56E-04
699	259512.9	4084004	0.000272	0.004641	3.15E-03	2.24E-03		2.72E-04	4.64E-03	3.15E-03	2.24E-03		4.14E-05	8.11E-04	5.16E-04	3.62E-04		2.25E-05	5.09E-04	2.46E-04	1.79E-04
700	259493.7	4084003	0.000279	0.004752	3.22E-03	2.29E-03		2.79E-04	4.75E-03	3.22E-03	2.29E-03		4.24E-05	8.30E-04	5.29E-04	3.71E-04		2.30E-05	5.22E-04	2.52E-04	1.83E-04
701	259467.3	4084004	0.000289	0.004932	3.34E-03	2.38E-03		2.89E-04	4.93E-03	3.34E-03	2.38E-03		4.40E-05	8.61E-04	5.49E-04	3.85E-04		2.39E-05	5.41E-04	2.62E-04	1.90E-04
702	259471.6	4083989	0.000281	0.004788	3.25E-03	2.31E-03		2.81E-04	4.79E-03	3.25E-03	2.31E-03		4.27E-05	8.36E-04	5.33E-04	3.74E-04		2.32E-05	5.26E-04	2.54E-04	1.85E-04
703	259481.6	4083973	0.00027	0.004605	3.12E-03	2.22E-03		2.70E-04	4.60E-03	3.12E-03	2.22E-03		4.11E-05	8.04E-04	5.13E-04	3.59E-04		2.23E-05	5.05E-04	2.44E-04	1.78E-04
704	259494.4	4083960	0.00026	0.004436	3.01E-03	2.14E-03		2.60E-04	4.44E-03	3.01E-03	2.14E-03		3.96E-05	7.75E-04	4.94E-04	3.46E-04		2.15E-05	4.87E-04	2.35E-04	1.71E-04
705	259510.1	4083959	0.000255	0.004348	2.95E-03	2.09E-03		2.55E-04	4.35E-03	2.95E-03	2.09E-03		3.88E-05	7.59E-04	4.84E-04	3.39E-04		2.11E-05	4.77E-04	2.31E-04	1.68E-04
706	259507.2	4083979	0.000264	0.004499	3.05E-03	2.17E-03		2.64E-04	4.50E-03	3.05E-03	2.17E-03		4.01E-05	7.86E-04	5.01E-04	3.51E-04		2.18E-05	4.94E-04	2.39E-04	1.73E-04
707	259493.7	4083982	0.00027	0.004598	3.12E-03	2.22E-03		2.70E-04	4.60E-03	3.12E-03	2.22E-03		4.10E-05	8.03E-04	5.12E-04	3.59E-04		2.23E-05	5.05E-04	2.44E-04	1.77E-04
708	259560	4084141	0.000296	0.005051	3.42E-03	2.43E-03		2.96E-04	5.05E-03	3.42E-03	2.43E-03		4.50E-05	8.82E-04	5.62E-04	3.94E-04		2.45E-05	5.54E-04	2.68E-04	1.95E-04
709	259557.1	4084127	0.000295	0.005024	3.41E-03	2.42E-03		2.95E-04	5.02E-03	3.41E-03	2.42E-03		4.48E-05	8.78E-04	5.59E-04	3.92E-04		2.43E-05	5.51E-04	2.67E-04	1.94E-04
710	259558.5	4084117	0.000291	0.004963	3.36E-03	2.39E-03		2.91E-04	4.96E-03	3.36E-03	2.39E-03		4.43E-05	8.67E-04	5.52E-04	3.87E-04		2.40E-05	5.45E-04	2.63E-04	1.91E-04
711	259558.5	4084103	0.000287	0.004897	3.32E-03	2.36E-03		2.87E-04	4.90E-03	3.32E-03	2.36E-03		4.37E-05	8.55E-04	5.45E-04	3.82E-04		2.37E-05	5.38E-04	2.60E-04	1.89E-04
712	259555.7	4084095	0.000286	0.00488	3.31E-03	2.35E-03		2.86E-04	4.88E-03	3.31E-03	2.35E-03		4.35E-05	8.52E-04	5.43E-04	3.81E-04		2.36E-05	5.36E-04	2.59E-04	1.88E-04
713	259555.7	4084086	0.000284	0.004835	3.28E-03	2.33E-03		2.84E-04	4.83E-03	3.28E-03	2.33E-03		4.31E-05	8.44E-04	5.38E-04	3.77E-04		2.34E-05	5.31E-04	2.57E-04	1.86E-04
714	259557.1	4084074	0.000279	0.004753	3.22E-03	2.29E-03		2.79E-04	4.75E-03	3.22E-03	2.29E-03		4.24E-05	8.30E-04	5.29E-04	3.71E-04		2.30E-05	5.22E-04	2.52E-04	1.83E-04
715	259555.7	4084062	0.000276	0.004702	3.19E-03	2.27E-03		2.76E-04	4.70E-03	3.19E-03	2.27E-03		4.19E-05	8.21E-04	5.23E-04	3.67E-04		2.28E-05	5.16E-04	2.50E-04	1.81E-04
716	259553.5	4084046	0.000271	0.004625	3.14E-03	2.23E-03		2.71E-04	4.63E-03	3.14E-03	2.23E-03		4.13E-05	8.08E-04	5.15E-04	3.61E-04		2.24E-05	5.08E-04	2.46E-04	1.78E-04
717	259553.5	4084039	0.000269	0.004588	3.11E-03	2.21E-03		2.69E-04	4.59E-03	3.11E-03	2.21E-03		4.09E-05	8.01E-04	5.11E-04	3.58E-04		2.22E-05	5.04E-04	2.44E-04	1.77E-04
718	259553.5	4084029	0.000266	0.00453	3.07E-03	2.18E-03		2.66E-04	4.53E-03	3.07E-03	2.18E-03		4.04E-05	7.91E-04	5.04E-04	3.53E-04		2.19E-05	4.97E-04	2.40E-04	1.75E-04
719	259554.3	4084017	0.000261	0.004455	3.02E-03	2.15E-03		2.61E-04	4.46E-03	3.02E-03	2.15E-03		3.97E-05	7.78E-04	4.96E-04	3.48E-04		2.16E-05	4.89E-04	2.37E-04	1.72E-04
720	259555.7	4084005	0.000257	0.004376	2.97E-03	2.11E-03		2.57E-04	4.38E-03	2.97E-03	2.11E-03		3.90E-05	7.64E-04	4.87E-04	3.41E-04		2.12E-05	4.80E-04	2.32E-04	1.69E-04
721	259556.4	4083993	0.000252	0.004302	2.92E-03	2.07E-03		2.52E-04	4.30E-03	2.92E-03	2.07E-03		3.84E-05	7.51E-04	4.79E-04	3.36E-04		2.08E-05	4.72E-04	2.28E-04	1.66E-04
722	259554.3	4083981	0.000249	0.004245	2.88E-03	2.05E-03		2.49E-04	4.24E-03	2.88E-03	2.05E-03		3.79E-05	7.41E-04	4.72E-04	3.31E-04		2.06E-05	4.66E-04	2.25E-04	1.64E-04
723	259553.5	4083964	0.000243	0.004149	2.81E-03	2.00E-03		2.43E-04	4.15E-03	2.81E-03	2.00E-03		3.70E-05	7.25E-04	4.62E-04	3.24E-04		2.01E-05	4.55E-04	2.20E-04	1.60E-04
724	259553.5	4083946	0.000237	0.004046	2.74E-03	1.95E-03		2.37E-04	4.05E-03	2.74E-03	1.95E-03		3.61E-05	7.07E-04	4.50E-04	3.16E-04		1.96E-05	4.44E-04	2.15E-04	1.56E-04
725	259552.8	4083935	0.000234	0.003983	2.70E-03	1.92E-03		2.34E-04	3.98E-03	2.70E-03	1.92E-03		3.55E-05	6.96E-04	4.43E-04	3.11E-04		1.93E-05	4.37E-04	2.11E-04	1.54E-04
726	259550.7	4083924	0.000231	0.003931	2.66E-03	1.89E-03		2.31E-04	3.93E-03	2.66E-03	1.89E-03		3.51E-05	6.87E-04	4.37E-04	3.07E-04		1.90E-05	4.31E-04	2.09E-04	1.52E-04
727	259551.4	4083914	0.000227	0.003869	2.62E-03	1.86E-03		2.27E-04	3.87E-03	2.62E-03	1.86E-03		3.45E-05	6.76E-04	4.31E-04	3.02E-04		1.87E-05	4.25E-04	2.05E-04	1.49E-04
728	259587	4084136	0.000278	0.004738	3.21E-03	2.28E-03		2.78E-04	4.74E-03	3.21E-03	2.28E-03		4.23E-05	8.27E-04	5.27E-04	3.70E-04		2.29E-05	5.20E-04	2.51E-04	1.83E-04
729	259587	4084123	0.000275	0.004694	3.18E-03	2.26E-03		2.75E-04	4.69E-03	3.18E-03	2.26E-03		4.19E-05	8.20E-04	5.22E-04	3.66E-04		2.27E-05	5.15E-04	2.49E-04	1.81E-04
730	259584.9	4084113	0.000275	0.004681	3.17E-03	2.26E-03		2.75E-04	4.68E-03	3.17E-03	2.26E-03		4.17E-05	8.18E-04	5.21E-04	3.65E-04		2.27E-05	5.14E-04	2.48E-04	1.80E-04
731	259586.3	4084098	0.000271	0.004612	3.13E-03	2.22E-03		2.71E-04	4.61E-03	3.13E-03	2.22E-03		4.11E-05	8.06E-04	5.13E-04	3.60E-04		2.23E-05	5.06E-04	2.45E-04	1.78E-04
732	259585.6	4084087	0.000268	0.004572	3.10E-03	2.20E-03		2.68E-04	4.57E-03	3.10E-03	2.20E-03		4.08E-05	7.99E-04	5.09E-04	3.57E-04		2.21E-05	5.02E-04	2.43E-04	1.76E-04
733	259585.6	4084073	0.000265	0.004511	3.06E-03	2.17E-03		2.65E-04	4.51E-03	3.06E-03	2.17E-03		4.02E-05	7.88E-04	5.02E-04	3.52E-04		2.19E-05	4.95E-04	2.39E-04	1.74E-04
734	259585.6	4084059	0.000261	0.00445	3.02E-03	2.14E-03		2.61E-04	4.45E-03	3.02E-03	2.14E-03		3.97E-05	7.77E-04	4.95E-04	3.47E-04		2.16E-05	4.88E-04	2.36E-04	1.72E-04
735	259581.3	4084041	0.000258	0.004397	2.98E-03	2.12E-03		2.58E-04	4.40E-03	2.98E-03	2.12E-03		3.92E-05	7.68E-04	4.89E-04	3.43E-04		2.13E-05	4.83E-04	2.33E-04	1.70E-04
736	259581.3	4084029	0.000254	0.004334	2.94E-03	2.09E-03		2.54E-04	4.33E-03	2.94E-03	2.09E-03		3.87E-05	7.57E-04	4.82E-04	3.38E-04		2.10E-05	4.76E-04	2.30E-04	1.67E-04
737	259580.6	4084014	0.00025	0.004267	2.89E-03	2.06E-03		2.50E-04	4.27E-03	2.89E-03	2.06E-03		3.81E-05	7.45E-04	4.75E-04	3.33E-04		2.07E-05	4.68E-04	2.26E-04	1.65E-04
738	259581.3	4083996	0.000244	0.004167	2.83E-03	2.01E-03		2.44E-04	4.17E-03	2.83E-03	2.01E-03		3.72E-05	7.28E-04	4.64E-04	3.25E-04		2.02E-05	4.57E-04	2.21E-04	1.61E-04
739	259581.3	4083975	0.000238	0.004057	2.75E-03	1.95E-03		2.38E-04	4.06E-03	2.75E-03	1.95E-03		3.62E-05	7.09E-04	4.52E-04	3.16E-04		1.97E-05	4.45E-04	2.15E-04	1.56E-04
740	259580.6	4083967	0.000236	0.00402	2.73E-03	1.94E-03		2.36E-04	4.02E-03	2.73E-03	1.94E-03		3.59E-05	7.02E-04	4.47E-04	3.14E-04		1.95E-05	4.41E-04	2.13E-04	1.55E-04
741	259580.6	4083955	0.000232	0.003961	2.69E-03	1.91E-03		2.32E-04	3.96E-03	2.69E-03	1.91E-03		3.53E-05	6.92E-04	4.41E-04	3.09E-04		1.92E-05	4.35E-04	2.10E-04	1.53E-04
742	259577.8	4083937	0.000227	0.003877	2.63E-03	1.87E-03		2.27E-04	3.88E-03	2.63E-03	1.87E-03		3.46E-05	6.77E-04	4.32E-04	3.02E-04		1.88E-05	4.26E-04	2.06E-04	1.50E-04
743	259580.6	4083920	0.000221	0.003774	2.56E-03	1.82E-03		2.21E-04	3.77E-03	2.56E-03	1.82E-03		3.37E-05	6.59E-04	4.20E-04	2.94E-04		1.83E-05	4.14E-04	2.00E-04	1.46E-04
744	259576.3	4083904	0.000218	0.003709	2.51E-03	1.79E-03		2.18E-04	3.71E-03	2.51E-03	1.79E-03		3.31E-05	6.48E-04	4.13E-04	2.89E-04		1.80E-05	4.07E-04	1.97E-04	1.43E-04
745	259408.9	4084009	0.000316	0.005379	3.65E-03	2.59E-03		3.16E-04	5.38E-03	3.65E-03	2.59E-03		4.80E-05	9.40E-04	5.99E-04	4.20E-04		2.61E-05	5.90E-04	2.86E-04	2.07E-04
746	259414.6	4083997	0.000306	0.00522	3.54E-03	2.51E-03		3.06E-04	5.22E-03	3.54E-03	2.51E-03		4.66E-05	9.12E-04	5.81E-04	4.07E-04		2.53E-05	5.73E-04	2.77E-04	2.01E-04
747	259421.7	4083986	0.000298	0.005075	3.44E-03	2.44E-03		2.98E-04	5.07E-03	3.44E-03	2.44E-03		4.53E-05	8.86E-04	5.65E-04	3.96E-04		2.46E-05	5.57E-04	2.69E-04	1.96E-04
748	259426.7	4083975	0.00029	0.004947	3.35E-03	2.38E-03		2.90E-04	4.95E-03	3.35E-03	2.38E-03		4.41E-05	8.64E-04	5.51E-04	3.86E-04		2.40E-05	5.43E-04	2.63E-04	1.91E-04
749	259433.9	4083958	0.000279	0.004755	3.22E-03	2.29E-03		2.79E-04	4.75E-03	3.22E-03	2.29E-03		4.24E-05	8.30E-04	5.29E-04	3.71E-04		2.30E-05	5.22E-04	2.52E-04	1.83E-04
750	259441	4083951	0.000273	0.004654	3.16E-03	2.24E-03		2.73E-04	4.65E-03	3.16E-03	2.24E-03		4.15E-05	8.13E-04	5.18E-04	3.63E-04		2.25E-05	5.11E-04	2.47E-04	1.79E-04
751	259447.4	4083942	0.000266	0.004542	3.08E-03	2.19E-03		2.66E-04	4.54E-03	3.08E-03	2.19E-03		4.05E-05	7.93E-04	5.06E-04	3.54E-04		2.20E-05	4.99E-04	2.41E-04	1.75E-04
752	259453.1	4083935	0.000261	0.004455	3.02E-03	2.15E-03		2.61E-04	4.46E-03	3.02E-03	2.15E-03		3.97E-05	7.78E-04	4.96E-04	3.48E-04		2.16E-05	4.89E-04	2.37E-04	1.72E-04
753	259462.4	4083925	0.000254	0.004332	2.94E-03	2.09E-03		2.54E-04	4.33E-03	2.94E-03	2.09E-03		3.86E-05	7.57E-04	4.82E-04	3.38E-04		2.10E-05	4.75E-04	2.30E-04	1.67E-04
754	259470.9	4083919	0.000249	0.004249	2.88E-03	2.05E-03		2.49E-04	4.25E-03	2.88E-03	2.05E-03		3.79E-05	7.42E-04	4.73E-04	3.31E-04		2.06E-05	4.66E-04	2.26E-04	1.64E-04
755	259483	4083914	0.000244	0.004159	2.82E-03	2.00E-03		2.44E-04	4.16E-03	2.82E-03	2.00E-03		3.71E-05	7.26E-04	4.63E-04	3.24E-04		2.01E-05	4.57E-04	2.21E-04	1.60E-04
756	259498

768	259423.9	4083923	0.000263	0.00449	3.04E-03	2.16E-03	2.63E-04	4.49E-03	3.04E-03	2.16E-03	4.00E-05	7.84E-04	5.00E-04	3.50E-04	2.17E-05	4.93E-04	2.38E-04	1.73E-04
769	259432.4	4083913	0.000256	0.004363	2.96E-03	2.10E-03	2.56E-04	4.36E-03	2.96E-03	2.10E-03	3.89E-05	7.62E-04	4.86E-04	3.40E-04	2.11E-05	4.79E-04	2.32E-04	1.68E-04
770	259438.1	4083905	0.00025	0.004265	2.89E-03	2.05E-03	2.50E-04	4.26E-03	2.89E-03	2.05E-03	3.80E-05	7.45E-04	4.75E-04	3.33E-04	2.07E-05	4.68E-04	2.26E-04	1.64E-04
771	259445.3	4083895	0.000244	0.004158	2.82E-03	2.00E-03	2.44E-04	4.16E-03	2.82E-03	2.00E-03	3.71E-05	7.26E-04	4.63E-04	3.24E-04	2.01E-05	4.56E-04	2.21E-04	1.60E-04
772	259453.8	4083889	0.000239	0.004075	2.76E-03	1.96E-03	2.39E-04	4.07E-03	2.76E-03	1.96E-03	3.63E-05	7.12E-04	4.53E-04	3.18E-04	1.97E-05	4.47E-04	2.16E-04	1.57E-04
773	259462.4	4083884	0.000235	0.004005	2.72E-03	1.93E-03	2.35E-04	4.01E-03	2.72E-03	1.93E-03	3.57E-05	7.00E-04	4.46E-04	3.12E-04	1.94E-05	4.40E-04	2.13E-04	1.54E-04
774	259476.6	4083879	0.00023	0.00392	2.66E-03	1.89E-03	2.30E-04	3.92E-03	2.66E-03	1.89E-03	3.50E-05	6.85E-04	4.36E-04	3.06E-04	1.90E-05	4.30E-04	2.08E-04	1.51E-04
775	259500.1	4083880	0.000226	0.003847	2.61E-03	1.85E-03	2.26E-04	3.85E-03	2.61E-03	1.85E-03	3.43E-05	6.72E-04	4.28E-04	3.00E-04	1.86E-05	4.22E-04	2.04E-04	1.48E-04
776	259503	4083880	0.000225	0.003842	2.60E-03	1.85E-03	2.25E-04	3.84E-03	2.60E-03	1.85E-03	3.43E-05	6.71E-04	4.28E-04	3.00E-04	1.86E-05	4.22E-04	2.04E-04	1.48E-04
777	259526.5	4083880	0.000221	0.003761	2.55E-03	1.81E-03	2.21E-04	3.76E-03	2.55E-03	1.81E-03	3.35E-05	6.57E-04	4.19E-04	2.93E-04	1.82E-05	4.13E-04	2.00E-04	1.45E-04
778	259554.3	4083880	0.000215	0.003658	2.48E-03	1.76E-03	2.15E-04	3.66E-03	2.48E-03	1.76E-03	3.26E-05	6.39E-04	4.07E-04	2.85E-04	1.77E-05	4.02E-04	1.94E-04	1.41E-04
779	259565.6	4083880	0.000212	0.003618	2.45E-03	1.74E-03	2.12E-04	3.62E-03	2.45E-03	1.74E-03	3.23E-05	6.32E-04	4.03E-04	2.82E-04	1.75E-05	3.97E-04	1.92E-04	1.39E-04
780	259584.9	4083881	0.000209	0.003555	2.41E-03	1.71E-03	2.09E-04	3.56E-03	2.41E-03	1.71E-03	3.17E-05	6.21E-04	3.96E-04	2.77E-04	1.72E-05	3.90E-04	1.89E-04	1.37E-04
781	259650.4	4084176	0.000242	0.004119	2.79E-03	1.98E-03	2.42E-04	4.12E-03	2.79E-03	1.98E-03	3.67E-05	7.20E-04	4.58E-04	3.21E-04	2.00E-05	4.52E-04	2.19E-04	1.59E-04
782	259648.3	4084190	0.000243	0.00414	2.81E-03	1.99E-03	2.43E-04	4.14E-03	2.81E-03	1.99E-03	3.69E-05	7.23E-04	4.61E-04	3.23E-04	2.01E-05	4.54E-04	2.20E-04	1.60E-04
783	259650.4	4084205	0.000241	0.00411	2.79E-03	1.98E-03	2.41E-04	4.11E-03	2.79E-03	1.98E-03	3.67E-05	7.18E-04	4.57E-04	3.21E-04	1.99E-05	4.51E-04	2.18E-04	1.58E-04
784	259652.6	4084215	0.000239	0.004079	2.77E-03	1.97E-03	2.39E-04	4.08E-03	2.77E-03	1.97E-03	3.64E-05	7.12E-04	4.54E-04	3.18E-04	1.98E-05	4.48E-04	2.17E-04	1.57E-04
785	259660.4	4084236	0.000233	0.003969	2.69E-03	1.91E-03	2.33E-04	3.97E-03	2.69E-03	1.91E-03	3.54E-05	6.93E-04	4.42E-04	3.10E-04	1.92E-05	4.36E-04	2.11E-04	1.53E-04
786	259662.5	4084248	0.00023	0.003927	2.66E-03	1.89E-03	2.30E-04	3.93E-03	2.66E-03	1.89E-03	3.50E-05	6.86E-04	4.37E-04	3.06E-04	1.90E-05	4.31E-04	2.08E-04	1.51E-04
787	259684.6	4084247	0.000217	0.0037	2.51E-03	1.78E-03	2.17E-04	3.70E-03	2.51E-03	1.78E-03	3.30E-05	6.46E-04	4.12E-04	2.89E-04	1.79E-05	4.06E-04	1.96E-04	1.43E-04
788	259701.7	4084247	0.000207	0.003535	2.40E-03	1.70E-03	2.07E-04	3.54E-03	2.40E-03	1.70E-03	3.15E-05	6.17E-04	3.93E-04	2.76E-04	1.71E-05	3.88E-04	1.88E-04	1.36E-04
789	259714.5	4084247	0.000201	0.003419	2.32E-03	1.65E-03	2.01E-04	3.42E-03	2.32E-03	1.65E-03	3.05E-05	5.97E-04	3.81E-04	2.67E-04	1.66E-05	3.75E-04	1.81E-04	1.32E-04
790	259740.2	4084245	0.000188	0.003203	2.17E-03	1.54E-03	1.88E-04	3.20E-03	2.17E-03	1.54E-03	2.86E-05	5.59E-04	3.56E-04	2.50E-04	1.55E-05	3.52E-04	1.70E-04	1.24E-04
791	259754.4	4084244	0.000181	0.00309	2.09E-03	1.49E-03	1.81E-04	3.09E-03	2.09E-03	1.49E-03	2.76E-05	5.40E-04	3.44E-04	2.41E-04	1.50E-05	3.39E-04	1.64E-04	1.19E-04
792	259769.4	4084244	0.000175	0.002975	2.02E-03	1.43E-03	1.75E-04	2.98E-03	2.02E-03	1.43E-03	2.65E-05	5.20E-04	3.31E-04	2.32E-04	1.44E-05	3.27E-04	1.58E-04	1.15E-04
793	259778.7	4084242	0.000171	0.002911	1.97E-03	1.40E-03	1.71E-04	2.91E-03	1.97E-03	1.40E-03	2.60E-05	5.08E-04	3.24E-04	2.27E-04	1.41E-05	3.20E-04	1.55E-04	1.12E-04
794	259791.5	4084240	0.000166	0.002823	1.91E-03	1.36E-03	1.66E-04	2.82E-03	1.91E-03	1.36E-03	2.52E-05	4.93E-04	3.14E-04	2.20E-04	1.37E-05	3.10E-04	1.50E-04	1.09E-04
795	259774.4	4084194	0.000177	0.003025	2.05E-03	1.46E-03	1.77E-04	3.03E-03	2.05E-03	1.46E-03	2.70E-05	5.28E-04	3.37E-04	2.36E-04	1.47E-05	3.32E-04	1.61E-04	1.17E-04
796	259756.6	4084196	0.000185	0.003155	2.14E-03	1.52E-03	1.85E-04	3.16E-03	2.14E-03	1.52E-03	2.81E-05	5.51E-04	3.51E-04	2.46E-04	1.53E-05	3.46E-04	1.67E-04	1.22E-04
797	259745.9	4084196	0.00019	0.003238	2.20E-03	1.56E-03	1.90E-04	3.24E-03	2.20E-03	1.56E-03	2.89E-05	5.66E-04	3.60E-04	2.53E-04	1.57E-05	3.55E-04	1.72E-04	1.25E-04
798	259733.1	4084196	0.000196	0.003342	2.27E-03	1.61E-03	1.96E-04	3.34E-03	2.27E-03	1.61E-03	2.98E-05	5.84E-04	3.72E-04	2.61E-04	1.62E-05	3.67E-04	1.77E-04	1.29E-04
799	259716.7	4084197	0.000204	0.003479	2.36E-03	1.68E-03	2.04E-04	3.48E-03	2.36E-03	1.68E-03	3.10E-05	6.08E-04	3.87E-04	2.71E-04	1.69E-05	3.82E-04	1.85E-04	1.34E-04
800	259705.3	4084197	0.00021	0.003579	2.43E-03	1.72E-03	2.10E-04	3.58E-03	2.43E-03	1.72E-03	3.19E-05	6.25E-04	3.98E-04	2.79E-04	1.73E-05	3.93E-04	1.90E-04	1.38E-04
801	259695.3	4084198	0.000215	0.003669	2.49E-03	1.77E-03	2.15E-04	3.67E-03	2.49E-03	1.77E-03	3.27E-05	6.41E-04	4.08E-04	2.86E-04	1.78E-05	4.03E-04	1.95E-04	1.41E-04
802	259688.2	4084197	0.000219	0.003737	2.53E-03	1.80E-03	2.19E-04	3.74E-03	2.53E-03	1.80E-03	3.33E-05	6.53E-04	4.16E-04	2.91E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
803	259690.3	4084178	0.000219	0.003732	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.33E-05	6.52E-04	4.15E-04	2.91E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
804	259699.6	4084181	0.000214	0.003645	2.47E-03	1.76E-03	2.14E-04	3.65E-03	2.47E-03	1.76E-03	3.25E-05	6.37E-04	4.06E-04	2.84E-04	1.77E-05	4.00E-04	1.93E-04	1.41E-04
805	259703.9	4084180	0.000212	0.003608	2.45E-03	1.74E-03	2.12E-04	3.61E-03	2.45E-03	1.74E-03	3.22E-05	6.30E-04	4.01E-04	2.81E-04	1.75E-05	3.96E-04	1.92E-04	1.39E-04
806	259714.5	4084180	0.000206	0.003515	2.38E-03	1.69E-03	2.06E-04	3.51E-03	2.38E-03	1.69E-03	3.13E-05	6.14E-04	3.91E-04	2.74E-04	1.70E-05	3.86E-04	1.87E-04	1.36E-04
807	259724.5	4084180	0.000201	0.00343	2.33E-03	1.65E-03	2.01E-04	3.43E-03	2.33E-03	1.65E-03	3.06E-05	5.99E-04	3.82E-04	2.68E-04	1.66E-05	3.77E-04	1.82E-04	1.32E-04
808	259733.1	4084180	0.000197	0.00336	2.28E-03	1.62E-03	1.97E-04	3.36E-03	2.28E-03	1.62E-03	3.00E-05	5.87E-04	3.74E-04	2.62E-04	1.63E-05	3.69E-04	1.78E-04	1.30E-04
809	259741.6	4084180	0.000193	0.003292	2.23E-03	1.59E-03	1.93E-04	3.29E-03	2.23E-03	1.59E-03	2.94E-05	5.75E-04	3.66E-04	2.57E-04	1.59E-05	3.61E-04	1.75E-04	1.27E-04
810	259753	4084180	0.000188	0.003203	2.17E-03	1.54E-03	1.88E-04	3.20E-03	2.17E-03	1.54E-03	2.86E-05	5.59E-04	3.56E-04	2.50E-04	1.55E-05	3.52E-04	1.70E-04	1.23E-04
811	259760.8	4084179	0.000184	0.003145	2.13E-03	1.52E-03	1.84E-04	3.15E-03	2.13E-03	1.52E-03	2.81E-05	5.49E-04	3.50E-04	2.45E-04	1.52E-05	3.45E-04	1.67E-04	1.21E-04
812	259765.8	4084178	0.000182	0.003109	2.11E-03	1.50E-03	1.82E-04	3.11E-03	2.11E-03	1.50E-03	2.77E-05	5.43E-04	3.46E-04	2.43E-04	1.51E-05	3.41E-04	1.65E-04	1.20E-04
813	259777.9	4084178	0.000177	0.003021	2.05E-03	1.46E-03	1.77E-04	3.02E-03	2.05E-03	1.46E-03	2.69E-05	5.28E-04	3.36E-04	2.36E-04	1.46E-05	3.32E-04	1.60E-04	1.17E-04
814	259728.1	4084245	0.000194	0.003305	2.24E-03	1.59E-03	1.94E-04	3.30E-03	2.24E-03	1.59E-03	2.95E-05	5.77E-04	3.68E-04	2.58E-04	1.60E-05	3.63E-04	1.75E-04	1.27E-04
815	259654	4084143	0.000239	0.00407	2.76E-03	1.96E-03	2.39E-04	4.07E-03	2.76E-03	1.96E-03	3.63E-05	7.11E-04	4.53E-04	3.17E-04	1.97E-05	4.47E-04	2.16E-04	1.57E-04
816	259653.3	4084131	0.000238	0.004065	2.76E-03	1.96E-03	2.38E-04	4.07E-03	2.76E-03	1.96E-03	3.63E-05	7.10E-04	4.52E-04	3.17E-04	1.97E-05	4.46E-04	2.16E-04	1.57E-04
817	259652.6	4084119	0.000238	0.004057	2.75E-03	1.95E-03	2.38E-04	4.06E-03	2.75E-03	1.95E-03	3.62E-05	7.09E-04	4.52E-04	3.16E-04	1.97E-05	4.45E-04	2.15E-04	1.56E-04
818	259651.8	4084103	0.000237	0.004037	2.74E-03	1.95E-03	2.37E-04	4.04E-03	2.74E-03	1.95E-03	3.60E-05	7.05E-04	4.49E-04	3.15E-04	1.96E-05	4.43E-04	2.14E-04	1.56E-04
819	259651.8	4084088	0.000235	0.004008	2.72E-03	1.93E-03	2.35E-04	4.01E-03	2.72E-03	1.93E-03	3.57E-05	7.00E-04	4.46E-04	3.13E-04	1.94E-05	4.40E-04	2.13E-04	1.55E-04
820	259651.8	4084073	0.000233	0.003974	2.69E-03	1.91E-03	2.33E-04	3.97E-03	2.69E-03	1.91E-03	3.54E-05	6.94E-04	4.42E-04	3.10E-04	1.93E-05	4.36E-04	2.11E-04	1.53E-04
821	259652.6	4084057	0.00023	0.003929	2.66E-03	1.89E-03	2.30E-04	3.93E-03	2.66E-03	1.89E-03	3.50E-05	6.86E-04	4.37E-04	3.06E-04	1.90E-05	4.31E-04	2.09E-04	1.51E-04
822	259649.7	4084042	0.000229	0.003907	2.65E-03	1.88E-03	2.29E-04	3.91E-03	2.65E-03	1.88E-03	3.48E-05	6.82E-04	4.35E-04	3.05E-04	1.89E-05	4.29E-04	2.07E-04	1.51E-04
823	259649.7	4084027	0.000226	0.003861	2.62E-03	1.86E-03	2.26E-04	3.86E-03	2.62E-03	1.86E-03	3.44E-05	6.74E-04	4.30E-04	3.01E-04	1.87E-05	4.24E-04	2.05E-04	1.49E-04
824	259647.6	4084014	0.000225	0.003833	2.60E-03	1.85E-03	2.25E-04	3.83E-03	2.60E-03	1.85E-03	3.42E-05	6.69E-04	4.27E-04	2.99E-04	1.86E-05	4.21E-04	2.03E-04	1.48E-04
825	259646.9	4084001	0.000222	0.00379	2.57E-03	1.83E-03	2.22E-04	3.79E-03	2.57E-03	1.83E-03	3.38E-05	6.62E-04	4.22E-04	2.96E-04	1.84E-05	4.16E-04	2.01E-04	1.46E-04
826	259647.6	4083984	0.000219	0.003727	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.32E-05	6.51E-04	4.15E-04	2.91E-04	1.81E-05	4.09E-04	1.98E-04	1.44E-04
827	259647.6	4083977	0.000217	0.003698	2.51E-03	1.78E-03	2.17E-04	3.70E-03	2.51E-03	1.78E-03	3.30E-05	6.46E-04	4.12E-04	2.88E-04	1.79E-05	4.06E-04	1.96E-04	1.43E-04
828	259645.4	4083965	0.000215	0.003664	2.48E-03	1.77E-03	2.15E-04	3.66E-03	2.48E-03	1.77E-03	3.27E-05	6.40E-04	4.08E-04	2.86E-04	1.77E-05	4.02E-04	1.94E-04	1.41E-04
829	259646.9	4083954	0.000212	0.003615	2.45E-03	1.74E-03	2.12E-04	3.62E-03	2.45E-03	1.74E-03	3.22E-05	6.31E-04	4.02E-04	2.82E-04	1.75E-05	3.97E-04	1.92E-04	1.39E-04
830	259648.3	4083945	0.00021	0.003575	2.42E-03	1.72E-03	2.10E-04	3.57E-03	2.42E-03	1.72E-03	3.19E-05	6.24E-04	3.98E-04	2.79E-04	1.73E-05	3.92E-04	1.90E-04	1.38E-04
831	259645.4	4083934	0.000208	0.003544	2.40E-03	1.71E-03	2.08E-04	3.54E-03	2.40E-03	1.71E-03	3.16E-05	6.19E-04	3.94E-04	2.76E-04	1.72E-05	3.89E-04	1.88E-04	1.37E-04
832	259644	4083918	0.000204	0.003484	2.36E-03	1.68E-03	2.04E-04	3.48E-03	2.36E-03	1.68E-03	3.11E-05	6.09E-04	3.88E-04	2.72E-04	1.69E-05	3.82E-04	1.85E-04	1.34E-04
833	259641.2	4083907	0.000203	0.003453	2.34E-03	1.66E-03	2.03E-04	3.45E-03	2.34E-03	1.66E-03	3.08E-05	6.03E-04	3.84E-04	2.69E-04	1.67E-05	3.79E-04	1.83E-04	1.33E-04
834	259644.7	4083890	0.000198	0.00337	2.28E-03	1.62E-03	1.98E-04	3.37E-03	2.28E-03	1.62E-03	3.01E-05	5.89E-04	3.75E-04	2.63E-04	1.63E-05	3.70E-04	1.79E-04	1.30E-04
835	259644	4083881	0.000196	0.003334	2.26E-03	1.61E-03	1.96E-04	3.33E-03	2.26E-03	1.61E-03	2.97E-05	5.82E-04	3.71E-04	2.60E-04	1.62E-05	3.66E-04	1.77E-04	1.29E-04
836	259664.7	4083880	0.000191	0.003251	2.20E-03	1.57E-03	1.91E-04	3.25E-03	2.20E-03	1.57E-03	2.90E-05	5.68E-04	3.62E-04	2.54E-04	1.57E-05	3.57E-04	1.73E-04	1.25E-04
837	259672.5	4083879	0.000189	0.003218	2.18E-03	1.55E-03	1.89E-04	3.22E-03	2.18E-03	1.55E-03	2.87E-05	5.62E-04	3.58E-04	2.51E-04	1.56E-05	3.53E-04	1.71E-04	1.24E-04
838	259690.3	4083878	0.000185	0.003146	2.13E-03	1.52E-03	1.85E-04	3.15E-03	2.13E-03	1.52E-03	2.81E-05	5.49E-04	3.50E-04	2.45E-04	1.52E-05	3.45E-04	1.67E-04	1.21E-04
839	259703.1	4083877	0.000182	0.003095	2.10E-03	1.49E-03	1.82E-04	3.09E-03	2.10E-03	1.49E-03	2.76E-05	5.41E-04	3.44E-04	2.41E-04	1.50E-05	3.40E-04	1.64E-04	1.19E-04
840	259718.1	4083873	0.000178	0.003028	2.05E-03	1.46E-03	1.78E-04	3.03E-03	2.05E-03	1.46E-03	2.70E-05	5.29E-04	3.37E-04	2.36E-04	1.47E-05	3.32E-04	1.61E-04	1.17E-04
841	259743.7	4083871	0.000172	0.002926	1.98E-03	1.41E-03	1.72E-04	2.93E-03	1.98E-03	1.41E-03	2.61E-05	5.11E-04	3.26E-04	2.28E-04	1.42E-05	3.21E-04	1.55E-04	1.13E-04
842	259765.8	4083870	0.000167	0.002841	1.93E-03	1.37E-03	1.67E-04	2.84E-03	1.93E-03	1.37E-03	2.53E-05	4.96E-04	3.16E-04	2.22E-04	1.38E-05	3.12E-04	1.51E-04	1.10E-04
843	259783.6	4083870	0.000163	0.002776	1.88E-03	1.34E-03	1.63E-04	2.78E-03	1.88E-03	1.34E-03	2.48E-05	4.85E-04	3.09E-04	2.17E-04	1.34E-05	3.05E-04	1.47E-04	1.07E-04
844	259782.9	4083903	0.000167	0.00285	1.93E-03	1.37E-03	1.67E-04	2.85E-03	1.93E-03	1.37E-03	2.54E-05	4.98E-04	3.17E-04	2.22E-04	1.38E-05	3.13E-04	1.51E-04	1.10E-04
845	259767.3	4083903	0.000171	0.002914	1.98E-03	1.40E-03	1.71E-04	2.91E-03	1.98E-03	1.40E-03	2.60E-05	5.09E-04	3.24E-04	2.27E-04	1.41E-05	3.20E-04	1.55E-04	1.12E-04
846	259752.3	4083905	0.000175	0.002979	2.02E-03	1.44E-03	1.75E-04	2.98E-03	2.02E-03	1.44E-03	2.66E-05	5.20E-04	3.31E-04	2.32E-04	1.44E-05	3.27E-04	1.58E-04	1.15E-04
847	259737.3	4083905	0.000178	0.003041	2.06E-03	1.47E-03	1.78E-04	3.04E-03	2.06E-03	1.47E-03	2.71E-05	5.31E-04	3.38E-04	2.37E-04	1.47E-05	3.34E-04	1.61E-04	1.17E-04
848	259721.7	4083907	0.000183	0.003112	2.11E-03	1.50E-03	1.83E-04	3.11E-03	2.11E-03	1.50E-03	2.78E-05	5.44E-04	3.46E-04	2.43E-04	1.51E-05	3.42E-04	1.65E-04	1.20E-04
849	259699.6	4083911	0.000189	0.003219	2.18E-03	1.55E-03	1.89E-04	3.22E-03	2.18E-03	1.55E-03	2.87E-05	5.62E-04	3.58E-04	2.51E-04	1.56E-05	3.53E-04	1.71E-04	1.24E-04
850	259688.2	4083911	0.000192	0.003268	2.22E-03	1.57E-03	1.92E-04	3.27E-03	2.22E-03	1.57E-03	2.91E-05	5.71E-04	3.64E-04	2.55E-04	1.58E-05	3.59E-04	1.73E-04	1.26E-04
851	259680.3	4083915	0.000194	0.003314	2.25E-03	1.60E-03	1.94E-04	3.31E-03	2.25E-03	1.60E-03	2.96E-05	5.79E-04	3.69E-04	2.59E-04	1.61E-05	3.64E-04	1.76E-04	1.28E-04
852	259675.4	4083935	0.0002	0.003405	2.31E-03	1.64E-03	2.00E-04	3.41E-03	2.31E-03	1.64E-03	3.04E-05	5.95E-04	3.79E-04	2.66E-04	1.65E-05	3.74E-04	1.81E-04	1.31E-04
853	259676.8	4083940	0.0002	0.003416	2.32E-03	1.65E-03	2.00E-04	3.42E-03	2.32E-03	1.65E-03	3.05E-05	5.97E-04	3.80E-04	2.66E-04	1.65E-05	3.75E-04	1.81E-04	1.32E-04
854	259681.8	4083961	0.000203	0.003461	2.35E-03	1.67E-03	2.03E-04	3.46E-03	2.35E-03	1.67E-03	3.09E-05	6.04E-04	3.85E-04	2.70E-04	1.68E-05	3.80E-04	1.84E-04	1.33E-04
855	259678.9	4083977	0.000207	0.003527	2.39E-03	1.70E-03	2.07E-04	3.53E-03	2.39E-03	1.70E-03	3.15E-05	6.16E-04	3.93E-04	2.75E-04	1.71E-05	3.87E-04	1.87E-04	1.36E-04
856	259678.9	4083985	0.000208	0.003551	2.41E-03	1.71E-03	2.08E-04	3.55E-03	2.41E-03	1.71E-03	3.17E-05	6.20E-04	3.95E-04	2.77E-04	1.72E-05	3.90E-04	1.88E-04	1.37E-04
857	259681.1	4084002	0.00021	0.003588	2.43E-03	1.73E-03	2.10E-04	3.59E-03	2.43E-03	1.73E-03	3.20E-05	6.27E-04	3.99E-04	2.80E-04	1.74E-05	3.94E-04	1.90E-04	1.38E-04
858	259681.1	4084014	0.000212	0.003619	2.45E-03	1.74E-03	2.12E-04	3.62E-03	2.45E-03	1.74E-03	3.23E-05	6.32E-04	4.03E-04	2.82E-04	1.75E-05	3.97E-04	1.92E-04	1.40E-04
859	259676.8	4084019	0.000215	0.003661	2.48E-03	1.76E-03	2.15E-04	3.66E-03	2.48E-03	1.76E-03	3.27E-05	6.39E-04	4.07E-04	2.86E-04	1.77E-05	4.02E-04	1.94E-04	1.41E-04
860	259677.5	4084033	0.000217	0.003691	2.50E-03	1.78E-03	2.17E-04	3.69E-03	2.50E-03	1.78E-03	3.29E-05	6.45E-04	4.11E-04	2.88E-04	1.79E-05	4.05E-04	1.96E-04	1.42E-04
861	259678.9	4084040	0.000217	0.003699	2.51E-03	1.78E-03	2.17E-04	3.70E-03	2.51E-03	1.78E-03	3.30E-05	6.46E-04	4.12E-04	2.89E-04	1.79E-05	4.06E-04	1.96E-04	1.43E-04
862	259678.9	4084056	0.000219	0.003733	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.33E-05	6.52E-04	4.15E-04	2.91E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
863	259678.9	4084059	0.000219	0.003741	2.54E-03	1.80E-03	2.19E-04	3.74E-03	2.54E-03	1.80E-03	3.34E-05	6.53E-04	4.16E-04	2.92E-04	1.81E-05	4.11E-04	1.99E-04	1.44E-04
864	259680.3	4084071	0.00022	0.003753	2.54E-03	1.81E-03	2.20E-04	3.75E-03	2.54E-03	1.81E-03	3.35E-05	6.56E-04	4.18E-04	2.93E-04	1.82E-05	4.12E-04	1.99E-04	1.45E-04
865	259678.2	4084084	0.000222	0.00379	2.57E-03	1.83E-03	2.22E-04	3.79E-03	2.57E-03	1.83E-03	3.38E-05	6.62E-04	4.22E-04	2.96E-04	1.84E-05	4.16E-04	2.01E-04	1.46E-04
866	259678.9	4084092	0.000223	0.003797	2.57E-03	1.83E-03	2.23E-04	3.80E-03	2.57E-03	1.83E-03	3.39E-05	6.63E-04	4.23E-04	2.96E-04	1.84E-05	4.17E-04	2.02E-04	1.46E-04
867	259679.6	4084107	0.000223	0.003809	2.58E-03	1.84E-03	2.23E-04	3.81E-03	2.58E-03	1.84E-03	3.40E-05	6.65E-04	4.24E-04	2.97E-04	1.85E-05	4.18E-04	2

878	259730.2	4084035	0.000197	0.003354	2.27E-03	1.62E-03	1.97E-04	3.35E-03	2.27E-03	1.62E-03	2.99E-05	5.86E-04	3.73E-04	2.62E-04	1.62E-05	3.68E-04	1.78E-04	1.29E-04
879	259765.1	4084033	0.000184	0.003138	2.13E-03	1.51E-03	1.84E-04	3.14E-03	2.13E-03	1.51E-03	2.80E-05	5.48E-04	3.49E-04	2.45E-04	1.52E-05	3.44E-04	1.67E-04	1.21E-04
880	259763	4084046	0.000185	0.003162	2.14E-03	1.52E-03	1.85E-04	3.16E-03	2.14E-03	1.52E-03	2.82E-05	5.52E-04	3.52E-04	2.47E-04	1.53E-05	3.47E-04	1.68E-04	1.22E-04
881	259763	4084054	0.000186	0.003167	2.15E-03	1.53E-03	1.86E-04	3.17E-03	2.15E-03	1.53E-03	2.83E-05	5.53E-04	3.53E-04	2.47E-04	1.53E-05	3.48E-04	1.68E-04	1.22E-04
882	259762.3	4084073	0.000187	0.003182	2.16E-03	1.53E-03	1.87E-04	3.18E-03	2.16E-03	1.53E-03	2.84E-05	5.56E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
883	259762.3	4084089	0.000187	0.003186	2.16E-03	1.53E-03	1.87E-04	3.19E-03	2.16E-03	1.53E-03	2.84E-05	5.56E-04	3.55E-04	2.49E-04	1.54E-05	3.50E-04	1.69E-04	1.23E-04
884	259763	4084100	0.000187	0.003181	2.16E-03	1.53E-03	1.87E-04	3.18E-03	2.16E-03	1.53E-03	2.84E-05	5.56E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
885	259763	4084112	0.000186	0.003179	2.16E-03	1.53E-03	1.86E-04	3.18E-03	2.16E-03	1.53E-03	2.84E-05	5.55E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
886	259759.4	4084124	0.000188	0.0032	2.17E-03	1.54E-03	1.88E-04	3.20E-03	2.17E-03	1.54E-03	2.85E-05	5.59E-04	3.56E-04	2.50E-04	1.55E-05	3.51E-04	1.70E-04	1.23E-04
887	259760.1	4084142	0.000187	0.003186	2.16E-03	1.53E-03	1.87E-04	3.19E-03	2.16E-03	1.53E-03	2.84E-05	5.56E-04	3.55E-04	2.49E-04	1.54E-05	3.50E-04	1.69E-04	1.23E-04
888	259763	4084126	0.000186	0.003174	2.15E-03	1.53E-03	1.86E-04	3.17E-03	2.15E-03	1.53E-03	2.83E-05	5.54E-04	3.53E-04	2.48E-04	1.54E-05	3.48E-04	1.69E-04	1.22E-04
889	259805	4084076	0.000171	0.002916	1.98E-03	1.40E-03	1.71E-04	2.92E-03	1.98E-03	1.40E-03	2.60E-05	5.09E-04	3.25E-04	2.27E-04	1.41E-05	3.20E-04	1.55E-04	1.12E-04
890	259820	4084074	0.000166	0.002829	1.92E-03	1.36E-03	1.66E-04	2.83E-03	1.92E-03	1.36E-03	2.52E-05	4.94E-04	3.15E-04	2.21E-04	1.37E-05	3.10E-04	1.50E-04	1.09E-04
891	259841.3	4084073	0.000159	0.002709	1.84E-03	1.31E-03	1.59E-04	2.71E-03	1.84E-03	1.31E-03	2.42E-05	4.73E-04	3.01E-04	2.11E-04	1.31E-05	2.97E-04	1.44E-04	1.04E-04
892	259852.7	4084073	0.000155	0.002647	1.79E-03	1.28E-03	1.55E-04	2.65E-03	1.79E-03	1.28E-03	2.36E-05	4.62E-04	2.95E-04	2.06E-04	1.28E-05	2.91E-04	1.41E-04	1.02E-04
893	259869.1	4084071	0.00015	0.002562	1.74E-03	1.23E-03	1.50E-04	2.56E-03	1.74E-03	1.23E-03	2.28E-05	4.47E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.88E-05
894	259881.2	4084071	0.000147	0.0025	1.69E-03	1.20E-03	1.47E-04	2.50E-03	1.69E-03	1.20E-03	2.23E-05	4.37E-04	2.78E-04	1.95E-04	1.21E-05	2.74E-04	1.33E-04	9.64E-05
895	259879.8	4084034	0.000148	0.002522	1.71E-03	1.22E-03	1.48E-04	2.52E-03	1.71E-03	1.22E-03	2.25E-05	4.41E-04	2.81E-04	1.97E-04	1.22E-05	2.77E-04	1.34E-04	9.72E-05
896	259869.8	4084036	0.000151	0.00257	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E-03	2.29E-05	4.49E-04	2.86E-04	2.00E-04	1.24E-05	2.82E-04	1.36E-04	9.91E-05
897	259859.2	4084036	0.000154	0.002624	1.78E-03	1.26E-03	1.54E-04	2.62E-03	1.78E-03	1.26E-03	2.34E-05	4.58E-04	2.92E-04	2.05E-04	1.27E-05	2.88E-04	1.39E-04	1.01E-04
898	259849.2	4084036	0.000157	0.002674	1.81E-03	1.29E-03	1.57E-04	2.67E-03	1.81E-03	1.29E-03	2.39E-05	4.67E-04	2.98E-04	2.09E-04	1.30E-05	2.94E-04	1.42E-04	1.03E-04
899	259834.2	4084035	0.000161	0.002752	1.87E-03	1.33E-03	1.61E-04	2.75E-03	1.87E-03	1.33E-03	2.45E-05	4.81E-04	3.06E-04	2.15E-04	1.33E-05	3.02E-04	1.46E-04	1.06E-04
900	259825	4084035	0.000164	0.002801	1.90E-03	1.35E-03	1.64E-04	2.80E-03	1.90E-03	1.35E-03	2.50E-05	4.89E-04	3.12E-04	2.19E-04	1.36E-05	3.08E-04	1.49E-04	1.08E-04
901	259815.7	4084036	0.000167	0.002852	1.93E-03	1.37E-03	1.67E-04	2.85E-03	1.93E-03	1.37E-03	2.54E-05	4.98E-04	3.17E-04	2.22E-04	1.38E-05	3.13E-04	1.51E-04	1.10E-04
902	259805.7	4084036	0.000171	0.002907	1.97E-03	1.40E-03	1.71E-04	2.91E-03	1.97E-03	1.40E-03	2.59E-05	5.08E-04	3.24E-04	2.27E-04	1.41E-05	3.19E-04	1.54E-04	1.12E-04
903	259819.3	4084113	0.000165	0.002814	1.91E-03	1.36E-03	1.65E-04	2.81E-03	1.91E-03	1.36E-03	2.51E-05	4.92E-04	3.13E-04	2.20E-04	1.36E-05	3.09E-04	1.49E-04	1.09E-04
904	259835.6	4084113	0.000159	0.002717	1.84E-03	1.31E-03	1.59E-04	2.72E-03	1.84E-03	1.31E-03	2.42E-05	4.75E-04	3.02E-04	2.12E-04	1.32E-05	2.98E-04	1.44E-04	1.05E-04
905	259863.4	4084110	0.00015	0.002564	1.74E-03	1.24E-03	1.50E-04	2.56E-03	1.74E-03	1.24E-03	2.29E-05	4.48E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.89E-05
906	259869.8	4084112	0.000148	0.002528	1.71E-03	1.22E-03	1.48E-04	2.53E-03	1.71E-03	1.22E-03	2.25E-05	4.41E-04	2.81E-04	1.97E-04	1.22E-05	2.77E-04	1.34E-04	9.75E-05
907	259885.5	4084112	0.000143	0.002445	1.66E-03	1.18E-03	1.43E-04	2.45E-03	1.66E-03	1.18E-03	2.18E-05	4.27E-04	2.72E-04	1.91E-04	1.18E-05	2.68E-04	1.30E-04	9.43E-05
908	259907.6	4084112	0.000137	0.002335	1.58E-03	1.12E-03	1.37E-04	2.33E-03	1.58E-03	1.12E-03	2.08E-05	4.08E-04	2.60E-04	1.82E-04	1.13E-05	2.56E-04	1.24E-04	9.00E-05
909	259924	4084109	0.000133	0.00226	1.53E-03	1.09E-03	1.33E-04	2.26E-03	1.53E-03	1.09E-03	2.02E-05	3.95E-04	2.51E-04	1.76E-04	1.09E-05	2.48E-04	1.20E-04	8.71E-05
910	259931.8	4084106	0.000131	0.002227	1.51E-03	1.07E-03	1.31E-04	2.23E-03	1.51E-03	1.07E-03	1.99E-05	3.89E-04	2.48E-04	1.74E-04	1.08E-05	2.44E-04	1.18E-04	8.58E-05
911	259926.8	4084091	0.000133	0.002265	1.54E-03	1.09E-03	1.33E-04	2.26E-03	1.54E-03	1.09E-03	2.02E-05	3.96E-04	2.52E-04	1.77E-04	1.10E-05	2.49E-04	1.20E-04	8.73E-05
912	259925.4	4084077	0.000134	0.002284	1.55E-03	1.10E-03	1.34E-04	2.28E-03	1.55E-03	1.10E-03	2.04E-05	3.99E-04	2.54E-04	1.78E-04	1.11E-05	2.51E-04	1.21E-04	8.80E-05
913	259925.4	4084059	0.000135	0.002298	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.01E-04	2.56E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.86E-05
914	259924.7	4084044	0.000135	0.002309	1.57E-03	1.11E-03	1.35E-04	2.31E-03	1.57E-03	1.11E-03	2.06E-05	4.03E-04	2.57E-04	1.80E-04	1.12E-05	2.54E-04	1.23E-04	8.91E-05
915	259921.8	4084016	0.000137	0.002334	1.58E-03	1.12E-03	1.37E-04	2.33E-03	1.58E-03	1.12E-03	2.08E-05	4.08E-04	2.60E-04	1.82E-04	1.13E-05	2.56E-04	1.24E-04	9.00E-05
916	259919	4084009	0.000138	0.002348	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.58E-04	1.25E-04	9.05E-05
917	259920.4	4083998	0.000137	0.002344	1.59E-03	1.13E-03	1.37E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.09E-04	2.61E-04	1.83E-04	1.14E-05	2.57E-04	1.24E-04	9.04E-05
918	259920.4	4083987	0.000138	0.002345	1.59E-03	1.13E-03	1.38E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.57E-04	1.24E-04	9.04E-05
919	259920.4	4083977	0.000138	0.002345	1.59E-03	1.13E-03	1.38E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.57E-04	1.24E-04	9.04E-05
920	259919	4083962	0.000138	0.002349	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.10E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.58E-04	1.25E-04	9.06E-05
921	259918.3	4083945	0.000138	0.002347	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.58E-04	1.25E-04	9.05E-05
922	259915.4	4083930	0.000138	0.002352	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.10E-05	4.11E-04	2.62E-04	1.84E-04	1.14E-05	2.58E-04	1.25E-04	9.07E-05
923	259914.7	4083919	0.000138	0.002349	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.10E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.58E-04	1.25E-04	9.06E-05
924	259912.6	4083900	0.000138	0.002345	1.59E-03	1.13E-03	1.38E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.57E-04	1.24E-04	9.04E-05
925	259889.8	4083898	0.000142	0.002426	1.64E-03	1.17E-03	1.42E-04	2.43E-03	1.64E-03	1.17E-03	2.16E-05	4.24E-04	2.70E-04	1.89E-04	1.18E-05	2.66E-04	1.29E-04	9.36E-05
926	259887.7	4083899	0.000143	0.002435	1.65E-03	1.17E-03	1.43E-04	2.44E-03	1.65E-03	1.17E-03	2.17E-05	4.25E-04	2.71E-04	1.90E-04	1.18E-05	2.67E-04	1.29E-04	9.39E-05
927	259874.1	4083899	0.000146	0.002486	1.69E-03	1.20E-03	1.46E-04	2.49E-03	1.69E-03	1.20E-03	2.22E-05	4.34E-04	2.77E-04	1.94E-04	1.20E-05	2.73E-04	1.32E-04	9.59E-05
928	259854.9	4083899	0.00015	0.002559	1.73E-03	1.23E-03	1.50E-04	2.56E-03	1.73E-03	1.23E-03	2.28E-05	4.47E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.87E-05
929	259847.8	4083900	0.000152	0.002587	1.75E-03	1.25E-03	1.52E-04	2.59E-03	1.75E-03	1.25E-03	2.31E-05	4.52E-04	2.88E-04	2.02E-04	1.25E-05	2.84E-04	1.37E-04	9.98E-05
930	259827.8	4083900	0.000156	0.002665	1.81E-03	1.28E-03	1.56E-04	2.67E-03	1.81E-03	1.28E-03	2.38E-05	4.66E-04	2.97E-04	2.08E-04	1.29E-05	2.93E-04	1.41E-04	1.03E-04
931	259814.3	4083902	0.00016	0.002721	1.84E-03	1.31E-03	1.60E-04	2.72E-03	1.84E-03	1.31E-03	2.43E-05	4.75E-04	3.03E-04	2.12E-04	1.32E-05	2.99E-04	1.44E-04	1.05E-04
932	259732.4	4083987	0.000191	0.003257	2.21E-03	1.57E-03	1.91E-04	3.26E-03	2.21E-03	1.57E-03	2.91E-05	5.69E-04	3.63E-04	2.54E-04	1.58E-05	3.58E-04	1.73E-04	1.26E-04
933	259748	4083985	0.000186	0.00317	2.15E-03	1.53E-03	1.86E-04	3.17E-03	2.15E-03	1.53E-03	2.83E-05	5.54E-04	3.53E-04	2.47E-04	1.54E-05	3.48E-04	1.68E-04	1.22E-04
934	259765.1	4083984	0.000181	0.003078	2.09E-03	1.48E-03	1.81E-04	3.08E-03	2.09E-03	1.48E-03	2.75E-05	5.38E-04	3.43E-04	2.40E-04	1.49E-05	3.38E-04	1.63E-04	1.19E-04
935	259775.1	4083983	0.000177	0.003025	2.05E-03	1.46E-03	1.77E-04	3.02E-03	2.05E-03	1.46E-03	2.70E-05	5.28E-04	3.37E-04	2.36E-04	1.47E-05	3.32E-04	1.61E-04	1.17E-04
936	259790.1	4083985	0.000173	0.002951	2.00E-03	1.42E-03	1.73E-04	2.95E-03	2.00E-03	1.42E-03	2.63E-05	5.15E-04	3.28E-04	2.30E-04	1.43E-05	3.24E-04	1.57E-04	1.14E-04
937	259796.5	4083985	0.000171	0.002918	1.98E-03	1.41E-03	1.71E-04	2.92E-03	1.98E-03	1.41E-03	2.60E-05	5.10E-04	3.25E-04	2.28E-04	1.41E-05	3.20E-04	1.55E-04	1.13E-04
938	259806.4	4083985	0.000168	0.002868	1.94E-03	1.38E-03	1.68E-04	2.87E-03	1.94E-03	1.38E-03	2.56E-05	5.01E-04	3.19E-04	2.24E-04	1.39E-05	3.15E-04	1.52E-04	1.11E-04
939	259814.3	4083985	0.000166	0.002829	1.92E-03	1.36E-03	1.66E-04	2.83E-03	1.92E-03	1.36E-03	2.52E-05	4.94E-04	3.15E-04	2.21E-04	1.37E-05	3.11E-04	1.50E-04	1.09E-04
940	259829.2	4083985	0.000162	0.002756	1.87E-03	1.33E-03	1.62E-04	2.76E-03	1.87E-03	1.33E-03	2.46E-05	4.81E-04	3.07E-04	2.15E-04	1.34E-05	3.03E-04	1.46E-04	1.06E-04
941	259832.8	4083986	0.000161	0.002739	1.86E-03	1.32E-03	1.61E-04	2.74E-03	1.86E-03	1.32E-03	2.44E-05	4.78E-04	3.05E-04	2.14E-04	1.33E-05	3.01E-04	1.45E-04	1.06E-04
942	259844.2	4083986	0.000157	0.002685	1.82E-03	1.29E-03	1.57E-04	2.69E-03	1.82E-03	1.29E-03	2.39E-05	4.69E-04	2.99E-04	2.09E-04	1.30E-05	2.95E-04	1.43E-04	1.04E-04
943	259854.9	4083985	0.000155	0.002635	1.79E-03	1.27E-03	1.55E-04	2.63E-03	1.79E-03	1.27E-03	2.35E-05	4.60E-04	2.93E-04	2.06E-04	1.28E-05	2.89E-04	1.40E-04	1.02E-04
944	259867	4083985	0.000151	0.002579	1.75E-03	1.24E-03	1.51E-04	2.58E-03	1.75E-03	1.24E-03	2.30E-05	4.50E-04	2.87E-04	2.01E-04	1.25E-05	2.83E-04	1.37E-04	9.94E-05
945	259877.7	4083984	0.000148	0.00253	1.72E-03	1.22E-03	1.48E-04	2.53E-03	1.72E-03	1.22E-03	2.26E-05	4.42E-04	2.82E-04	1.97E-04	1.23E-05	2.78E-04	1.34E-04	9.76E-05
946	259875.5	4083968	0.000149	0.002533	1.72E-03	1.22E-03	1.49E-04	2.53E-03	1.72E-03	1.22E-03	2.26E-05	4.42E-04	2.82E-04	1.98E-04	1.23E-05	2.78E-04	1.34E-04	9.77E-05
947	259874.8	4083961	0.000149	0.002533	1.72E-03	1.22E-03	1.49E-04	2.53E-03	1.72E-03	1.22E-03	2.26E-05	4.42E-04	2.82E-04	1.98E-04	1.23E-05	2.78E-04	1.34E-04	9.77E-05
948	259864.9	4083951	0.000151	0.00257	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E-03	2.29E-05	4.49E-04	2.86E-04	2.00E-04	1.24E-05	2.82E-04	1.36E-04	9.91E-05
949	259850.6	4083953	0.000154	0.002633	1.78E-03	1.27E-03	1.54E-04	2.63E-03	1.78E-03	1.27E-03	2.35E-05	4.60E-04	2.93E-04	2.05E-04	1.28E-05	2.89E-04	1.40E-04	1.02E-04
950	259841.3	4083953	0.000157	0.002674	1.81E-03	1.29E-03	1.57E-04	2.67E-03	1.81E-03	1.29E-03	2.38E-05	4.67E-04	2.98E-04	2.09E-04	1.29E-05	2.93E-04	1.42E-04	1.03E-04
951	259827.8	4083954	0.00016	0.002735	1.85E-03	1.32E-03	1.60E-04	2.73E-03	1.85E-03	1.32E-03	2.44E-05	4.78E-04	3.04E-04	2.13E-04	1.32E-05	3.00E-04	1.45E-04	1.05E-04
952	259825.7	4083954	0.000161	0.002744	1.86E-03	1.32E-03	1.61E-04	2.74E-03	1.86E-03	1.32E-03	2.45E-05	4.79E-04	3.05E-04	2.14E-04	1.33E-05	3.01E-04	1.46E-04	1.06E-04
953	259817.1	4083954	0.000163	0.002783	1.89E-03	1.34E-03	1.63E-04	2.78E-03	1.89E-03	1.34E-03	2.48E-05	4.86E-04	3.10E-04	2.17E-04	1.35E-05	3.05E-04	1.48E-04	1.07E-04
954	259803.6	4083954	0.000167	0.002845	1.93E-03	1.37E-03	1.67E-04	2.85E-03	1.93E-03	1.37E-03	2.54E-05	4.97E-04	3.17E-04	2.22E-04	1.38E-05	3.12E-04	1.51E-04	1.10E-04
955	259794.3	4083953	0.000169	0.002887	1.96E-03	1.39E-03	1.69E-04	2.89E-03	1.96E-03	1.39E-03	2.58E-05	5.04E-04	3.21E-04	2.25E-04	1.40E-05	3.17E-04	1.53E-04	1.11E-04
956	259775.1	4083953	0.000175	0.002978	2.02E-03	1.43E-03	1.75E-04	2.98E-03	2.02E-03	1.43E-03	2.66E-05	5.20E-04	3.31E-04	2.32E-04	1.44E-05	3.27E-04	1.58E-04	1.15E-04
957	259773	4083953	0.000175	0.002988	2.03E-03	1.44E-03	1.75E-04	2.99E-03	2.03E-03	1.44E-03	2.66E-05	5.22E-04	3.33E-04	2.33E-04	1.45E-05	3.28E-04	1.59E-04	1.15E-04
958	259764.4	4083953	0.000178	0.003029	2.05E-03	1.46E-03	1.78E-04	3.03E-03	2.05E-03	1.46E-03	2.70E-05	5.29E-04	3.37E-04	2.36E-04	1.47E-05	3.32E-04	1.61E-04	1.17E-04
959	259757.3	4083953	0.00018	0.003063	2.08E-03	1.48E-03	1.80E-04	3.06E-03	2.08E-03	1.48E-03	2.73E-05	5.35E-04	3.41E-04	2.39E-04	1.48E-05	3.36E-04	1.63E-04	1.18E-04
960	259744.5	4083955	0.000183	0.003128	2.12E-03	1.51E-03	1.83E-04	3.13E-03	2.12E-03	1.51E-03	2.79E-05	5.46E-04	3.48E-04	2.44E-04	1.52E-05	3.43E-04	1.66E-04	1.21E-04
961	259741.6	4083955	0.000184	0.003143	2.13E-03	1.51E-03	1.84E-04	3.14E-03	2.13E-03	1.51E-03	2.80E-05	5.49E-04	3.50E-04	2.45E-04	1.52E-05	3.45E-04	1.67E-04	1.21E-04
962	259733.8	4083956	0.000187	0.003184	2.16E-03	1.53E-03	1.87E-04	3.18E-03	2.16E-03	1.53E-03	2.84E-05	5.56E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
963	259728.1	4083956	0.000188	0.003212	2.18E-03	1.55E-03	1.88E-04	3.21E-03	2.18E-03	1.55E-03	2.86E-05	5.61E-04	3.57E-04	2.51E-04	1.56E-05	3.53E-04	1.71E-04	1.24E-04
964	259727.4	4083956	0.000189	0.003215	2.18E-03	1.55E-03	1.89E-04	3.22E-03	2.18E-03	1.55E-03	2.87E-05	5.62E-04	3.58E-04	2.51E-04	1.56E-05	3.53E-04	1.71E-04	1.24E-04
965	259820.7	4083868	0.000155	0.002638	1.79E-03	1.27E-03	1.55E-04	2.64E-03	1.79E-03	1.27E-03	2.35E-05	4.61E-04	2.94E-04	2.06E-04	1.28E-05	2.90E-04	1.40E-04	1.02E-04
966	259837.8	4083869	0.000151	0.002579	1.75E-03	1.24E-03	1.51E-04	2.58E-03	1.75E-03	1.24E-03	2.30E-05	4.50E-04	2.87E-04	2.01E-04	1.25E-05	2.83E-04	1.37E-04	9.94E-05
967	259854.9	4083869	0.000148	0.002519	1.71E-03	1.21E-03	1.48E-04	2.52E-03	1.71E-03	1.21E-03	2.25E-05	4.40E-04	2.80E-04	1.96E-04	1.22E-05	2.76E-04	1.34E-04	9.71E-05
968	259874.1	4083868	0.000144	0.002449	1.66E-03	1.18E-03	1.44E-04	2.45E-03	1.66E-03	1.18E-03	2.18E-05	4.28E-04	2.73E-04	1.91E-04	1.19E-05	2.69E-04	1.30E-04	9.44E-05
969	259888.4	4083867	0.000141	0.0024	1.63E-03	1.16E-03	1.41E-04	2.40E-03	1.63E-03	1.16E-03	2.14E-05	4.19E-04	2.67E-04	1.87E-04	1.16E-05	2.63E-04	1.27E-04	9.25E-05
970	259899.8	4083867	0.000138	0.002361	1.60E-03	1.14E-03	1.38E-04	2.36E-03	1.60E-03	1.14E-03	2.11E-05	4.12E-04	2.63E-04	1.84E-04	1.14E-05	2.59E-04	1.25E-04	9.10E-05
971	259912.6	4083867	0.000136	0.002317	1.57E-03	1.12E-03	1.36E-04	2.32E-03	1.57E-03	1.12E-03	2.07E-05	4.05E-04	2.58E-04	1.81E-04	1.12E-05	2.54E-04	1.23E-04	8.94E-05
972	259926.8	4083867	0.000133	0.00227	1.54E-03	1.09E-03	1.33E-04	2.27E-03	1.54E-03	1.09E-03	2.02E-05	3.96E-04	2.53E-04	1.77E-04	1.10E-05	2.49E-04	1.20E-04	8.75E-05
973	259924.7	4084029	0.000136	0.002317	1.57E-03	1.12E-03	1.36E-04	2.32E-03	1.57E-03	1.12E-03	2.07E-05	4.05E-04	2.58E-04	1.81E-04	1.12E-05	2.54E-04	1.23E-04	8.93E-05
974	259721.7	4083811	0.000165	0.002818	1.91E-03	1.36E-03	1.65E-04	2.82E-03	1.91E-03	1.36E-03	2.51E-05	4.92E-04	3.14E-04	2.20E-04	1.37E-05	3.09E-04	1.50E-04	1.09E-04
975	259738	4083810	0.000162	0.002769	1.88E-03	1.33E-03	1.62E-04	2.77E-03	1.88E-03	1.33E-03	2.47E-05	4.84E-04	3.08E-04	2.16E-04	1.34E-05	3.04E-04	1.47E-04	1.07E-04
976	259752.3	4083809	0.00016	0.002725	1.85E-03	1.31E-03	1.60E-04	2.73E-03	1.85E-03	1.31E-03	2.43E-05	4.76E-04	3.03E-04	2.13E-04	1.32E-05	2.99E-04	1.45E-04	1.05E-04
977	259768.7	4083809	0.000157	0.002675	1.81E-03	1.29E-03	1.57E-04	2.68E-03	1.81E-03	1.29E-03	2.39E-05	4.67E-04	2.98E-04	2.09E-04	1.30E-05	2.94E-04	1.42E-04	1.03E-04
978	259780.1	4083

988	259753	4083780	0.000155	0.002638	1.79E-03	1.27E-03	1.55E-04	2.64E-03	1.79E-03	1.27E-03	2.35E-05	4.61E-04	2.94E-04	2.06E-04	1.28E-05	2.90E-04	1.40E-04	1.02E-04
989	259765.8	4083779	0.000153	0.002601	1.76E-03	1.25E-03	1.53E-04	2.60E-03	1.76E-03	1.25E-03	2.32E-05	4.54E-04	2.89E-04	2.03E-04	1.26E-05	2.86E-04	1.38E-04	1.00E-04
990	259771.5	4083778	0.000152	0.002584	1.75E-03	1.25E-03	1.52E-04	2.58E-03	1.75E-03	1.25E-03	2.31E-05	4.51E-04	2.88E-04	2.02E-04	1.25E-05	2.84E-04	1.37E-04	9.97E-05
991	259780.8	4083777	0.00015	0.002559	1.73E-03	1.23E-03	1.50E-04	2.56E-03	1.73E-03	1.23E-03	2.28E-05	4.47E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.87E-05
992	259787.9	4083776	0.000149	0.002536	1.72E-03	1.22E-03	1.49E-04	2.54E-03	1.72E-03	1.22E-03	2.26E-05	4.43E-04	2.82E-04	1.98E-04	1.23E-05	2.78E-04	1.35E-04	9.78E-05
993	259797.2	4083775	0.000147	0.002511	1.70E-03	1.21E-03	1.47E-04	2.51E-03	1.70E-03	1.21E-03	2.24E-05	4.38E-04	2.79E-04	1.96E-04	1.22E-05	2.76E-04	1.33E-04	9.68E-05
994	259806.4	4083774	0.000146	0.002485	1.68E-03	1.20E-03	1.46E-04	2.48E-03	1.68E-03	1.20E-03	2.22E-05	4.34E-04	2.77E-04	1.94E-04	1.20E-05	2.73E-04	1.32E-04	9.58E-05
995	259816.4	4083773	0.000144	0.002456	1.66E-03	1.18E-03	1.44E-04	2.46E-03	1.66E-03	1.18E-03	2.19E-05	4.29E-04	2.73E-04	1.92E-04	1.19E-05	2.70E-04	1.30E-04	9.47E-05
996	259837.8	4083773	0.000141	0.0024	1.63E-03	1.16E-03	1.41E-04	2.40E-03	1.63E-03	1.16E-03	2.14E-05	4.19E-04	2.67E-04	1.87E-04	1.16E-05	2.63E-04	1.27E-04	9.25E-05
997	259850.6	4083773	0.000139	0.002366	1.60E-03	1.14E-03	1.39E-04	2.37E-03	1.60E-03	1.14E-03	2.11E-05	4.13E-04	2.63E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.12E-05
998	259864.9	4083774	0.000137	0.00233	1.58E-03	1.12E-03	1.37E-04	2.33E-03	1.58E-03	1.12E-03	2.08E-05	4.07E-04	2.59E-04	1.82E-04	1.13E-05	2.56E-04	1.24E-04	8.99E-05
999	259882	4083773	0.000134	0.002284	1.55E-03	1.10E-03	1.34E-04	2.28E-03	1.55E-03	1.10E-03	2.04E-05	3.99E-04	2.54E-04	1.78E-04	1.11E-05	2.51E-04	1.21E-04	8.81E-05
1000	259889.1	4083773	0.000133	0.002265	1.54E-03	1.09E-03	1.33E-04	2.27E-03	1.54E-03	1.09E-03	2.02E-05	3.96E-04	2.52E-04	1.77E-04	1.10E-05	2.49E-04	1.20E-04	8.73E-05
1001	259893.4	4083809	0.000135	0.002309	1.57E-03	1.11E-03	1.35E-04	2.31E-03	1.57E-03	1.11E-03	2.06E-05	4.03E-04	2.57E-04	1.80E-04	1.12E-05	2.53E-04	1.23E-04	8.90E-05
1002	259913.3	4083808	0.000132	0.002249	1.52E-03	1.08E-03	1.32E-04	2.25E-03	1.52E-03	1.08E-03	2.01E-05	3.93E-04	2.50E-04	1.75E-04	1.09E-05	2.47E-04	1.19E-04	8.67E-05
1003	259918.3	4083774	0.000128	0.00219	1.48E-03	1.06E-03	1.28E-04	2.19E-03	1.48E-03	1.06E-03	1.95E-05	3.83E-04	2.44E-04	1.71E-04	1.06E-05	2.40E-04	1.16E-04	8.44E-05
1004	259918.3	4083759	0.000127	0.00217	1.47E-03	1.05E-03	1.27E-04	2.17E-03	1.47E-03	1.05E-03	1.94E-05	3.79E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.37E-05
1005	259916.1	4083742	0.000126	0.002149	1.46E-03	1.04E-03	1.26E-04	2.15E-03	1.46E-03	1.04E-03	1.92E-05	3.75E-04	2.39E-04	1.68E-04	1.04E-05	2.36E-04	1.14E-04	8.29E-05
1006	259918.3	4083725	0.000124	0.002118	1.44E-03	1.02E-03	1.24E-04	2.12E-03	1.44E-03	1.02E-03	1.89E-05	3.70E-04	2.36E-04	1.65E-04	1.03E-05	2.32E-04	1.12E-04	8.17E-05
1007	259918.3	4083717	0.000123	0.002105	1.43E-03	1.01E-03	1.23E-04	2.11E-03	1.43E-03	1.01E-03	1.88E-05	3.68E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.12E-05
1008	259919	4083696	0.000121	0.002069	1.40E-03	9.97E-04	1.21E-04	2.07E-03	1.40E-03	9.97E-04	1.84E-05	3.61E-04	2.30E-04	1.61E-04	1.00E-05	2.27E-04	1.10E-04	7.98E-05
1009	259916.9	4083683	0.00012	0.002051	1.39E-03	9.88E-04	1.20E-04	2.05E-03	1.39E-03	9.88E-04	1.83E-05	3.58E-04	2.28E-04	1.60E-04	9.93E-06	2.25E-04	1.09E-04	7.91E-05
1010	259917.6	4083671	0.000119	0.002029	1.38E-03	9.77E-04	1.19E-04	2.03E-03	1.38E-03	9.77E-04	1.81E-05	3.54E-04	2.26E-04	1.58E-04	9.83E-06	2.23E-04	1.08E-04	7.82E-05
1011	259917.6	4083658	0.000118	0.002005	1.36E-03	9.66E-04	1.18E-04	2.00E-03	1.36E-03	9.66E-04	1.79E-05	3.50E-04	2.23E-04	1.56E-04	9.71E-06	2.20E-04	1.06E-04	7.73E-05
1012	259913.3	4083645	0.000117	0.00199	1.35E-03	9.59E-04	1.17E-04	1.99E-03	1.35E-03	9.59E-04	1.77E-05	3.48E-04	2.21E-04	1.55E-04	9.64E-06	2.18E-04	1.06E-04	7.67E-05
1013	259914.7	4083640	0.000116	0.001977	1.34E-03	9.52E-04	1.16E-04	1.98E-03	1.34E-03	9.52E-04	1.76E-05	3.45E-04	2.20E-04	1.54E-04	9.58E-06	2.17E-04	1.05E-04	7.62E-05
1014	259915.4	4083624	0.000114	0.001947	1.32E-03	9.38E-04	1.14E-04	1.95E-03	1.32E-03	9.38E-04	1.74E-05	3.40E-04	2.17E-04	1.52E-04	9.43E-06	2.14E-04	1.03E-04	7.51E-05
1015	259915.4	4083616	0.000113	0.001932	1.31E-03	9.31E-04	1.13E-04	1.93E-03	1.31E-03	9.31E-04	1.72E-05	3.37E-04	2.15E-04	1.51E-04	9.36E-06	2.12E-04	1.03E-04	7.45E-05
1016	259913.3	4083597	0.000111	0.001898	1.29E-03	9.14E-04	1.11E-04	1.90E-03	1.29E-03	9.14E-04	1.69E-05	3.31E-04	2.11E-04	1.48E-04	9.19E-06	2.08E-04	1.01E-04	7.32E-05
1017	259913.3	4083591	0.000111	0.001887	1.28E-03	9.09E-04	1.11E-04	1.89E-03	1.28E-03	9.09E-04	1.68E-05	3.30E-04	2.10E-04	1.47E-04	9.14E-06	2.07E-04	1.00E-04	7.27E-05
1018	259912.6	4083574	0.000109	0.001854	1.26E-03	8.93E-04	1.09E-04	1.85E-03	1.26E-03	8.93E-04	1.65E-05	3.24E-04	2.06E-04	1.45E-04	8.98E-06	2.04E-04	9.84E-05	7.15E-05
1019	259909.7	4083566	0.000108	0.00184	1.25E-03	8.87E-04	1.08E-04	1.84E-03	1.25E-03	8.87E-04	1.64E-05	3.21E-04	2.05E-04	1.44E-04	8.91E-06	2.02E-04	9.77E-05	7.10E-05
1020	259909	4083556	0.000107	0.001823	1.24E-03	8.78E-04	1.07E-04	1.82E-03	1.24E-03	8.78E-04	1.63E-05	3.18E-04	2.03E-04	1.42E-04	8.83E-06	2.00E-04	9.67E-05	7.03E-05
1021	259907.6	4083549	0.000106	0.001808	1.23E-03	8.71E-04	1.06E-04	1.81E-03	1.23E-03	8.71E-04	1.61E-05	3.16E-04	2.01E-04	1.41E-04	8.76E-06	1.98E-04	9.60E-05	6.97E-05
1022	259907.6	4083539	0.000105	0.00179	1.21E-03	8.62E-04	1.05E-04	1.79E-03	1.21E-03	8.62E-04	1.60E-05	3.13E-04	1.99E-04	1.40E-04	8.67E-06	1.96E-04	9.50E-05	6.90E-05
1023	259905.5	4083527	0.000104	0.001767	1.20E-03	8.51E-04	1.04E-04	1.77E-03	1.20E-03	8.51E-04	1.58E-05	3.09E-04	1.97E-04	1.38E-04	8.56E-06	1.94E-04	9.38E-05	6.81E-05
1024	259903.3	4083518	0.000103	0.00175	1.19E-03	8.43E-04	1.03E-04	1.75E-03	1.19E-03	8.43E-04	1.56E-05	3.06E-04	1.95E-04	1.36E-04	8.47E-06	1.92E-04	9.29E-05	6.75E-05
1025	259899.8	4083510	0.000102	0.001736	1.18E-03	8.37E-04	1.02E-04	1.74E-03	1.18E-03	8.37E-04	1.55E-05	3.03E-04	1.93E-04	1.35E-04	8.41E-06	1.91E-04	9.22E-05	6.69E-05
1026	259894.8	4083504	0.000101	0.001728	1.17E-03	8.33E-04	1.01E-04	1.73E-03	1.17E-03	8.33E-04	1.54E-05	3.02E-04	1.92E-04	1.35E-04	8.37E-06	1.90E-04	9.17E-05	6.66E-05
1027	259886.2	4083499	0.000101	0.001724	1.17E-03	8.31E-04	1.01E-04	1.72E-03	1.17E-03	8.31E-04	1.54E-05	3.01E-04	1.92E-04	1.34E-04	8.35E-06	1.89E-04	9.15E-05	6.65E-05
1028	259880.5	4083498	0.000101	0.001725	1.17E-03	8.31E-04	1.01E-04	1.72E-03	1.17E-03	8.31E-04	1.54E-05	3.01E-04	1.92E-04	1.35E-04	8.36E-06	1.89E-04	9.16E-05	6.65E-05
1029	259868.4	4083498	0.000102	0.001733	1.17E-03	8.35E-04	1.02E-04	1.73E-03	1.17E-03	8.35E-04	1.55E-05	3.03E-04	1.93E-04	1.35E-04	8.39E-06	1.90E-04	9.20E-05	6.68E-05
1030	259854.2	4083498	0.000102	0.001742	1.18E-03	8.39E-04	1.02E-04	1.74E-03	1.18E-03	8.39E-04	1.55E-05	3.04E-04	1.94E-04	1.36E-04	8.44E-06	1.91E-04	9.24E-05	6.72E-05
1031	259844.2	4083499	0.000103	0.001751	1.19E-03	8.43E-04	1.03E-04	1.75E-03	1.19E-03	8.43E-04	1.56E-05	3.06E-04	1.95E-04	1.37E-04	8.48E-06	1.92E-04	9.29E-05	6.75E-05
1032	259825	4083501	0.000104	0.001766	1.20E-03	8.51E-04	1.04E-04	1.77E-03	1.20E-03	8.51E-04	1.58E-05	3.08E-04	1.97E-04	1.38E-04	8.55E-06	1.94E-04	9.38E-05	6.81E-05
1033	259820	4083501	0.000104	0.001769	1.20E-03	8.52E-04	1.04E-04	1.77E-03	1.20E-03	8.52E-04	1.58E-05	3.09E-04	1.97E-04	1.38E-04	8.57E-06	1.94E-04	9.39E-05	6.82E-05
1034	259799.3	4083504	0.000105	0.001783	1.21E-03	8.59E-04	1.05E-04	1.78E-03	1.21E-03	8.59E-04	1.59E-05	3.11E-04	1.98E-04	1.39E-04	8.64E-06	1.96E-04	9.47E-05	6.88E-05
1035	259867	4083581	0.000113	0.001921	1.30E-03	9.25E-04	1.13E-04	1.92E-03	1.30E-03	9.25E-04	1.71E-05	3.35E-04	2.14E-04	1.50E-04	9.30E-06	2.11E-04	1.02E-04	7.41E-05
1036	259859.2	4083581	0.000113	0.001931	1.31E-03	9.30E-04	1.13E-04	1.93E-03	1.31E-03	9.30E-04	1.72E-05	3.37E-04	2.15E-04	1.51E-04	9.35E-06	2.12E-04	1.03E-04	7.45E-05
1037	259847.8	4083581	0.000114	0.001944	1.32E-03	9.36E-04	1.14E-04	1.94E-03	1.32E-03	9.36E-04	1.73E-05	3.39E-04	2.16E-04	1.52E-04	9.41E-06	2.13E-04	1.03E-04	7.49E-05
1038	259837.1	4083585	0.000115	0.001964	1.33E-03	9.46E-04	1.15E-04	1.96E-03	1.33E-03	9.46E-04	1.75E-05	3.43E-04	2.19E-04	1.53E-04	9.51E-06	2.16E-04	1.04E-04	7.57E-05
1039	259824.2	4083588	0.000116	0.001986	1.35E-03	9.57E-04	1.16E-04	1.99E-03	1.35E-03	9.57E-04	1.77E-05	3.47E-04	2.21E-04	1.55E-04	9.62E-06	2.18E-04	1.05E-04	7.66E-05
1040	259812.1	4083596	0.000118	0.002019	1.37E-03	9.73E-04	1.18E-04	2.02E-03	1.37E-03	9.73E-04	1.80E-05	3.53E-04	2.25E-04	1.57E-04	9.78E-06	2.22E-04	1.07E-04	7.78E-05
1041	259803.6	4083603	0.00012	0.002045	1.39E-03	9.85E-04	1.20E-04	2.04E-03	1.39E-03	9.85E-04	1.82E-05	3.57E-04	2.28E-04	1.60E-04	9.90E-06	2.24E-04	1.09E-04	7.88E-05
1042	259795	4083611	0.000122	0.002077	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.85E-05	3.63E-04	2.31E-04	1.62E-04	1.01E-05	2.28E-04	1.10E-04	8.01E-05
1043	259785.8	4083620	0.000124	0.002113	1.43E-03	1.02E-03	1.24E-04	2.11E-03	1.43E-03	1.02E-03	1.88E-05	3.69E-04	2.35E-04	1.65E-04	1.02E-05	2.32E-04	1.12E-04	8.15E-05
1044	259776.5	4083629	0.000126	0.002149	1.46E-03	1.04E-03	1.26E-04	2.15E-03	1.46E-03	1.04E-03	1.92E-05	3.75E-04	2.39E-04	1.68E-04	1.04E-05	2.36E-04	1.14E-04	8.28E-05
1045	259773	4083633	0.000127	0.002165	1.47E-03	1.04E-03	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.93E-05	3.78E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.35E-05
1046	259767.3	4083638	0.000128	0.002185	1.48E-03	1.05E-03	1.28E-04	2.18E-03	1.48E-03	1.05E-03	1.95E-05	3.82E-04	2.43E-04	1.70E-04	1.06E-05	2.40E-04	1.16E-04	8.42E-05
1047	259760.1	4083648	0.00013	0.002224	1.51E-03	1.07E-03	1.30E-04	2.22E-03	1.51E-03	1.07E-03	1.98E-05	3.88E-04	2.47E-04	1.73E-04	1.08E-05	2.44E-04	1.18E-04	8.57E-05
1048	259748.7	4083653	0.000132	0.002253	1.53E-03	1.09E-03	1.32E-04	2.25E-03	1.53E-03	1.09E-03	2.01E-05	3.94E-04	2.51E-04	1.76E-04	1.09E-05	2.47E-04	1.20E-04	8.69E-05
1049	259738.8	4083662	0.000135	0.002298	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.01E-04	2.56E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.86E-05
1050	259730.2	4083667	0.000136	0.002325	1.58E-03	1.12E-03	1.36E-04	2.33E-03	1.58E-03	1.12E-03	2.07E-05	4.06E-04	2.59E-04	1.81E-04	1.13E-05	2.55E-04	1.23E-04	8.97E-05
1051	259720.2	4083675	0.000139	0.002365	1.60E-03	1.14E-03	1.39E-04	2.36E-03	1.60E-03	1.14E-03	2.11E-05	4.13E-04	2.63E-04	1.84E-04	1.15E-05	2.60E-04	1.26E-04	9.12E-05
1052	259708.1	4083683	0.000141	0.002408	1.63E-03	1.16E-03	1.41E-04	2.41E-03	1.63E-03	1.16E-03	2.15E-05	4.21E-04	2.68E-04	1.88E-04	1.17E-05	2.64E-04	1.28E-04	9.29E-05
1053	259701	4083690	0.000143	0.002444	1.66E-03	1.18E-03	1.43E-04	2.44E-03	1.66E-03	1.18E-03	2.18E-05	4.27E-04	2.72E-04	1.91E-04	1.18E-05	2.68E-04	1.30E-04	9.42E-05
1054	259688.2	4083704	0.000147	0.002512	1.70E-03	1.21E-03	1.47E-04	2.51E-03	1.70E-03	1.21E-03	2.24E-05	4.39E-04	2.80E-04	1.96E-04	1.22E-05	2.76E-04	1.33E-04	9.69E-05
1055	259683.9	4083712	0.000149	0.002548	1.73E-03	1.23E-03	1.49E-04	2.55E-03	1.73E-03	1.23E-03	2.27E-05	4.45E-04	2.84E-04	1.99E-04	1.23E-05	2.80E-04	1.35E-04	9.83E-05
1056	259678.2	4083722	0.000152	0.002599	1.76E-03	1.25E-03	1.52E-04	2.60E-03	1.76E-03	1.25E-03	2.32E-05	4.54E-04	2.89E-04	2.03E-04	1.26E-05	2.85E-04	1.38E-04	1.00E-04
1057	259671.1	4083734	0.000156	0.002658	1.80E-03	1.28E-03	1.56E-04	2.66E-03	1.80E-03	1.28E-03	2.37E-05	4.64E-04	2.96E-04	2.07E-04	1.29E-05	2.92E-04	1.41E-04	1.03E-04
1058	259669.7	4083744	0.000158	0.002698	1.83E-03	1.30E-03	1.58E-04	2.70E-03	1.83E-03	1.30E-03	2.41E-05	4.71E-04	3.00E-04	2.10E-04	1.31E-05	2.96E-04	1.43E-04	1.04E-04
1059	259671.1	4083762	0.000162	0.002767	1.88E-03	1.33E-03	1.62E-04	2.77E-03	1.88E-03	1.33E-03	2.47E-05	4.83E-04	3.08E-04	2.16E-04	1.34E-05	3.04E-04	1.47E-04	1.07E-04
1060	259669.7	4083775	0.000166	0.002824	1.91E-03	1.36E-03	1.66E-04	2.82E-03	1.91E-03	1.36E-03	2.52E-05	4.93E-04	3.14E-04	2.20E-04	1.37E-05	3.10E-04	1.50E-04	1.09E-04
1061	259668.9	4083783	0.000168	0.002857	1.94E-03	1.38E-03	1.68E-04	2.86E-03	1.94E-03	1.38E-03	2.55E-05	4.99E-04	3.18E-04	2.23E-04	1.38E-05	3.14E-04	1.52E-04	1.10E-04
1062	259668.9	4083793	0.00017	0.002896	1.96E-03	1.40E-03	1.70E-04	2.90E-03	1.96E-03	1.40E-03	2.58E-05	5.06E-04	3.22E-04	2.26E-04	1.40E-05	3.18E-04	1.54E-04	1.12E-04
1063	259671.1	4083807	0.000173	0.002947	2.00E-03	1.42E-03	1.73E-04	2.95E-03	2.00E-03	1.42E-03	2.63E-05	5.15E-04	3.28E-04	2.30E-04	1.43E-05	3.24E-04	1.56E-04	1.14E-04
1064	259661.1	4083814	0.000176	0.003	2.03E-03	1.45E-03	1.76E-04	3.00E-03	2.03E-03	1.45E-03	2.68E-05	5.24E-04	3.34E-04	2.34E-04	1.45E-05	3.29E-04	1.59E-04	1.16E-04
1065	259654	4083814	0.000177	0.00302	2.05E-03	1.45E-03	1.77E-04	3.02E-03	2.05E-03	1.45E-03	2.69E-05	5.27E-04	3.36E-04	2.36E-04	1.46E-05	3.31E-04	1.60E-04	1.16E-04
1066	259641.9	4083813	0.000179	0.00305	2.07E-03	1.47E-03	1.79E-04	3.05E-03	2.07E-03	1.47E-03	2.72E-05	5.33E-04	3.39E-04	2.38E-04	1.48E-05	3.35E-04	1.62E-04	1.18E-04
1067	259634.8	4083810	0.000179	0.003056	2.07E-03	1.47E-03	1.79E-04	3.06E-03	2.07E-03	1.47E-03	2.73E-05	5.34E-04	3.40E-04	2.38E-04	1.48E-05	3.35E-04	1.62E-04	1.18E-04
1068	259635.5	4083794	0.000175	0.002984	2.02E-03	1.44E-03	1.75E-04	2.98E-03	2.02E-03	1.44E-03	2.66E-05	5.21E-04	3.32E-04	2.33E-04	1.45E-05	3.28E-04	1.58E-04	1.15E-04
1069	259635.5	4083783	0.000172	0.002933	1.99E-03	1.41E-03	1.72E-04	2.93E-03	1.99E-03	1.41E-03	2.62E-05	5.12E-04	3.26E-04	2.29E-04	1.42E-05	3.22E-04	1.56E-04	1.13E-04
1070	259635.5	4083774	0.00017	0.002892	1.96E-03	1.39E-03	1.70E-04	2.89E-03	1.96E-03	1.39E-03	2.58E-05	5.05E-04	3.22E-04	2.26E-04	1.40E-05	3.17E-04	1.54E-04	1.12E-04
1071	259635.5	4083764	0.000167	0.00285	1.93E-03	1.37E-03	1.67E-04	2.85E-03	1.93E-03	1.37E-03	2.54E-05	4.98E-04	3.17E-04	2.22E-04	1.38E-05	3.13E-04	1.51E-04	1.10E-04
1072	259633.3	4083754	0.000165	0.002806	1.90E-03	1.35E-03	1.65E-04	2.81E-03	1.90E-03	1.35E-03	2.50E-05	4.90E-04	3.12E-04	2.19E-04	1.36E-05	3.08E-04	1.49E-04	1.08E-04
1073	259631.9	4083739	0.000161	0.002745	1.86E-03	1.32E-03	1.61E-04	2.74E-03	1.86E-03	1.32E-03	2.45E-05	4.79E-04	3.05E-04	2.14E-04	1.33E-05	3.01E-04	1.46E-04	1.06E-04
1074	259632.6	4083730	0.000158	0.002702	1.83E-03	1.30E-03	1.58E-04	2.70E-03	1.83E-03	1.30E-03	2.41E-05	4.72E-04	3.01E-04	2.11E-04	1.31E-05	2.97E-04	1.43E-04	1.04E-04
1075	259632.6	4083723	0.000157	0.00267	1.81E-03	1.29E-03	1.57E-04	2.67E-03	1.81E-03	1.29E-03	2.38E-05	4.66E-04	2.97E-04	2.08E-04	1.29E-05	2.93E-04	1.42E-04	1.03E-04
1076	259635.5	4083717	0.000155	0.002641	1.79E-03	1.27E-03	1.55E-04	2.64E-03	1.79E-03	1.27E-03	2.36E-05	4.61E-04	2.94E-04	2.06E-04	1.28E-05	2.90E-04	1.40E-04	1.02E-04
1077	259644.7	4083709	0.000152	0.002592	1.76E-03	1.25E-03	1.52E-04	2.59E-03	1.76E-03	1.25E-03	2.31E-05	4.53E-04	2.88E-04	2.02E-04	1.26E-05	2.84E-04	1.38E-04	9.99E-05
1078	259647.6	4083702	0.00015	0.002561	1.74E-03	1.23E-03	1.50E-04	2.56E-03	1.74E-03	1.23E-03	2.28E-05	4.47E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.87E-05
1079	259654	4083692	0.000147	0.002508	1.70E-03	1.21E-03	1.47E-04	2.51E-03	1.70E-03	1.21E-03	2.24E-05	4.38E-04	2.79E-04	1.96E-04	1.22E-05	2.75E-04	1.33E-04	9.67E-05
1080	259659	4083688	0.000146	0.002488	1.69E-03	1.20E-03	1.46E-04	2.49E-03	1.69E-03	1.20E-03	2.22E-05	4.35E-04	2.77E-04	1.94E-04	1.21E-05	2.73E-04	1.32E-04	9.59E-05
1081	259671.1	4083677	0.000142	0.002429	1.65E-03	1.17E-03	1.42E-04	2.43E-03	1.65E-03	1.17E-03	2.17E-05	4.24E-04	2.70E-04	1.89E-04	1.18E-05	2.67E-04	1.29E-04	9.37E-05
1082	259683.2	4083666	0.000139	0.002375	1.61E-03	1.14E-03	1.39E-04	2.38E-03	1.61E-03	1.14E-03	2.12E-05	4.15E-04	2.64E-04	1.85E-04	1.15E-05	2.61E-04	1.26E-04	9.16E-05
1083	259685.3	4083665	0.000139	0.00237	1.61E-03	1.14E-03	1.39E-04	2.37E-03	1.61E-03	1.14E-03	2.11E-05	4.14E-04	2.64E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.14E-05
1084	259688.2	4083661	0.000138	0.002351	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.10E-05	4.11E-04	2.62E-04	1.83E-04	1.14E-05	2.58E-04	1.25E-04	9.07E-05
1085	259696	4083653	0.000136	0.002312	1.57E-03	1.11E-03	1.36E-04	2.31E-03	1.57E-03	1.11E-03	2.06E-05	4.04E-04	2.57E-04	1.80E-04	1.12E-05	2.54E-04	1.23E-04	8.91E-05
1086	259706.7	4083645	0.000133	0.002276	1.54E-03	1.10E-03	1.33E-04	2.28E-03	1.54E-03	1.10E-03	2.03E-05	3.98E-04	2.53E-04	1.78E-04	1.10E-05	2.50E-04	1.21E-04	8.78E-05
1087	259711.7	4083641	0.000132	0.002256	1.53E-03	1.09E-03	1.32E-04	2.26E-03	1.53E-03

1098	259791.5	4083558	0.000113	0.001935	1.31E-03	9.32E-04	1.13E-04	1.93E-03	1.31E-03	9.32E-04	1.73E-05	3.38E-04	2.15E-04	1.51E-04	9.37E-06	2.12E-04	1.03E-04	7.46E-05
1099	259801.5	4083555	0.000113	0.001918	1.30E-03	9.24E-04	1.13E-04	1.92E-03	1.30E-03	9.24E-04	1.71E-05	3.35E-04	2.13E-04	1.50E-04	9.29E-06	2.11E-04	1.02E-04	7.40E-05
1100	259807.2	4083546	0.000111	0.001891	1.28E-03	9.11E-04	1.11E-04	1.89E-03	1.28E-03	9.11E-04	1.69E-05	3.30E-04	2.10E-04	1.48E-04	9.16E-06	2.08E-04	1.00E-04	7.29E-05
1101	259829.2	4083544	0.00011	0.001868	1.27E-03	9.00E-04	1.10E-04	1.87E-03	1.27E-03	9.00E-04	1.67E-05	3.26E-04	2.08E-04	1.46E-04	9.05E-06	2.05E-04	9.92E-05	7.20E-05
1102	259832.1	4083544	0.000109	0.001866	1.26E-03	8.99E-04	1.09E-04	1.87E-03	1.26E-03	8.99E-04	1.66E-05	3.26E-04	2.08E-04	1.46E-04	9.04E-06	2.05E-04	9.90E-05	7.19E-05
1103	259851.3	4083549	0.000109	0.001862	1.26E-03	8.97E-04	1.09E-04	1.86E-03	1.26E-03	8.97E-04	1.66E-05	3.25E-04	2.07E-04	1.45E-04	9.02E-06	2.04E-04	9.88E-05	7.18E-05
1104	259868.4	4083549	0.000108	0.001847	1.25E-03	8.90E-04	1.08E-04	1.85E-03	1.25E-03	8.90E-04	1.65E-05	3.23E-04	2.06E-04	1.44E-04	8.95E-06	2.03E-04	9.80E-05	7.12E-05
1105	259726.7	4083739	0.000151	0.002572	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E-03	2.29E-05	4.49E-04	2.86E-04	2.01E-04	1.25E-05	2.82E-04	1.37E-04	9.92E-05
1106	259735.9	4083731	0.000148	0.002525	1.71E-03	1.22E-03	1.48E-04	2.53E-03	1.71E-03	1.22E-03	2.25E-05	4.41E-04	2.81E-04	1.97E-04	1.22E-05	2.77E-04	1.34E-04	9.74E-05
1107	259745.2	4083719	0.000145	0.002471	1.68E-03	1.19E-03	1.45E-04	2.47E-03	1.68E-03	1.19E-03	2.20E-05	4.32E-04	2.75E-04	1.93E-04	1.20E-05	2.71E-04	1.31E-04	9.53E-05
1108	259763	4083730	0.000145	0.002468	1.67E-03	1.19E-03	1.45E-04	2.47E-03	1.67E-03	1.19E-03	2.20E-05	4.31E-04	2.75E-04	1.93E-04	1.20E-05	2.71E-04	1.31E-04	9.52E-05
1109	259777.9	4083732	0.000143	0.002441	1.66E-03	1.18E-03	1.43E-04	2.44E-03	1.66E-03	1.18E-03	2.18E-05	4.26E-04	2.72E-04	1.90E-04	1.18E-05	2.68E-04	1.30E-04	9.41E-05
1110	259796.5	4083732	0.000141	0.002402	1.63E-03	1.16E-03	1.41E-04	2.40E-03	1.63E-03	1.16E-03	2.14E-05	4.19E-04	2.67E-04	1.87E-04	1.16E-05	2.64E-04	1.27E-04	9.26E-05
1111	259810	4083732	0.000139	0.002372	1.61E-03	1.14E-03	1.39E-04	2.37E-03	1.61E-03	1.14E-03	2.12E-05	4.14E-04	2.64E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.15E-05
1112	259825.7	4083732	0.000137	0.002338	1.58E-03	1.13E-03	1.37E-04	2.34E-03	1.58E-03	1.13E-03	2.09E-05	4.08E-04	2.60E-04	1.82E-04	1.13E-05	2.57E-04	1.24E-04	9.01E-05
1113	259833.5	4083732	0.000136	0.00232	1.57E-03	1.12E-03	1.36E-04	2.32E-03	1.57E-03	1.12E-03	2.07E-05	4.05E-04	2.58E-04	1.81E-04	1.12E-05	2.55E-04	1.23E-04	8.95E-05
1114	259854.2	4083730	0.000133	0.002271	1.54E-03	1.09E-03	1.33E-04	2.27E-03	1.54E-03	1.09E-03	2.03E-05	3.97E-04	2.53E-04	1.77E-04	1.10E-05	2.49E-04	1.21E-04	8.76E-05
1115	259864.1	4083729	0.000132	0.002247	1.52E-03	1.08E-03	1.32E-04	2.25E-03	1.52E-03	1.08E-03	2.00E-05	3.93E-04	2.50E-04	1.75E-04	1.09E-05	2.47E-04	1.19E-04	8.66E-05
1116	259876.3	4083729	0.00013	0.002219	1.50E-03	1.07E-03	1.30E-04	2.22E-03	1.50E-03	1.07E-03	1.98E-05	3.88E-04	2.47E-04	1.73E-04	1.07E-05	2.44E-04	1.18E-04	8.55E-05
1117	259871.3	4083710	0.000129	0.002192	1.49E-03	1.06E-03	1.29E-04	2.19E-03	1.49E-03	1.06E-03	1.96E-05	3.83E-04	2.44E-04	1.71E-04	1.06E-05	2.41E-04	1.16E-04	8.45E-05
1118	259862	4083711	0.00013	0.002214	1.50E-03	1.07E-03	1.30E-04	2.21E-03	1.50E-03	1.07E-03	1.97E-05	3.87E-04	2.46E-04	1.73E-04	1.07E-05	2.43E-04	1.18E-04	8.54E-05
1119	259852.7	4083712	0.000131	0.002237	1.52E-03	1.08E-03	1.31E-04	2.24E-03	1.52E-03	1.08E-03	1.99E-05	3.91E-04	2.49E-04	1.74E-04	1.08E-05	2.46E-04	1.19E-04	8.62E-05
1120	259843.5	4083712	0.000132	0.002254	1.53E-03	1.09E-03	1.32E-04	2.25E-03	1.53E-03	1.09E-03	2.01E-05	3.94E-04	2.51E-04	1.76E-04	1.09E-05	2.47E-04	1.20E-04	8.69E-05
1121	259829.2	4083710	0.000134	0.00228	1.55E-03	1.10E-03	1.34E-04	2.28E-03	1.55E-03	1.10E-03	2.03E-05	3.98E-04	2.54E-04	1.78E-04	1.10E-05	2.50E-04	1.21E-04	8.79E-05
1122	259817.1	4083712	0.000135	0.00231	1.57E-03	1.11E-03	1.35E-04	2.31E-03	1.57E-03	1.11E-03	2.06E-05	4.03E-04	2.57E-04	1.80E-04	1.12E-05	2.54E-04	1.23E-04	8.91E-05
1123	259800	4083712	0.000137	0.002344	1.59E-03	1.13E-03	1.37E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.09E-04	2.61E-04	1.83E-04	1.14E-05	2.57E-04	1.24E-04	9.04E-05
1124	259787.9	4083710	0.000139	0.002362	1.60E-03	1.14E-03	1.39E-04	2.36E-03	1.60E-03	1.14E-03	2.11E-05	4.13E-04	2.63E-04	1.84E-04	1.14E-05	2.59E-04	1.25E-04	9.11E-05
1125	259781.5	4083710	0.000139	0.002372	1.61E-03	1.14E-03	1.39E-04	2.37E-03	1.61E-03	1.14E-03	2.12E-05	4.14E-04	2.64E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.15E-05
1126	259768.7	4083705	0.00014	0.002384	1.62E-03	1.15E-03	1.40E-04	2.38E-03	1.62E-03	1.15E-03	2.13E-05	4.16E-04	2.65E-04	1.86E-04	1.15E-05	2.62E-04	1.27E-04	9.19E-05
1127	259763.7	4083702	0.00014	0.002382	1.62E-03	1.15E-03	1.40E-04	2.38E-03	1.62E-03	1.15E-03	2.12E-05	4.16E-04	2.65E-04	1.86E-04	1.15E-05	2.61E-04	1.26E-04	9.19E-05
1128	259793.6	4083671	0.000132	0.002245	1.52E-03	1.08E-03	1.32E-04	2.24E-03	1.52E-03	1.08E-03	2.00E-05	3.92E-04	2.50E-04	1.75E-04	1.09E-05	2.46E-04	1.19E-04	8.65E-05
1129	259807.9	4083671	0.00013	0.002222	1.51E-03	1.07E-03	1.30E-04	2.22E-03	1.51E-03	1.07E-03	1.98E-05	3.88E-04	2.47E-04	1.73E-04	1.08E-05	2.44E-04	1.18E-04	8.57E-05
1130	259822.8	4083669	0.000129	0.002192	1.49E-03	1.06E-03	1.29E-04	2.19E-03	1.49E-03	1.06E-03	1.95E-05	3.83E-04	2.44E-04	1.71E-04	1.06E-05	2.41E-04	1.16E-04	8.45E-05
1131	259830.7	4083669	0.000128	0.002179	1.48E-03	1.05E-03	1.28E-04	2.18E-03	1.48E-03	1.05E-03	1.94E-05	3.81E-04	2.42E-04	1.70E-04	1.06E-05	2.39E-04	1.16E-04	8.40E-05
1132	259843.5	4083668	0.000126	0.002155	1.46E-03	1.04E-03	1.26E-04	2.16E-03	1.46E-03	1.04E-03	1.92E-05	3.76E-04	2.40E-04	1.68E-04	1.04E-05	2.37E-04	1.14E-04	8.31E-05
1133	259854.9	4083667	0.000125	0.002133	1.45E-03	1.03E-03	1.25E-04	2.13E-03	1.45E-03	1.03E-03	1.90E-05	3.72E-04	2.37E-04	1.66E-04	1.03E-05	2.34E-04	1.13E-04	8.22E-05
1134	259864.1	4083667	0.000124	0.002117	1.43E-03	1.02E-03	1.24E-04	2.12E-03	1.43E-03	1.02E-03	1.89E-05	3.70E-04	2.36E-04	1.65E-04	1.03E-05	2.32E-04	1.12E-04	8.16E-05
1135	259872.7	4083667	0.000123	0.002102	1.42E-03	1.01E-03	1.23E-04	2.10E-03	1.42E-03	1.01E-03	1.87E-05	3.67E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.10E-05
1136	259869.1	4083642	0.00012	0.002054	1.39E-03	9.90E-04	1.20E-04	2.05E-03	1.39E-03	9.90E-04	1.83E-05	3.59E-04	2.29E-04	1.60E-04	9.95E-06	2.25E-04	1.09E-04	7.92E-05
1137	259869.1	4083628	0.000119	0.002025	1.37E-03	9.75E-04	1.19E-04	2.02E-03	1.37E-03	9.75E-04	1.81E-05	3.54E-04	2.25E-04	1.58E-04	9.81E-06	2.22E-04	1.07E-04	7.81E-05
1138	259854.2	4083629	0.00012	0.002048	1.39E-03	9.87E-04	1.20E-04	2.05E-03	1.39E-03	9.87E-04	1.83E-05	3.58E-04	2.28E-04	1.60E-04	9.92E-06	2.25E-04	1.09E-04	7.90E-05
1139	259842.8	4083633	0.000122	0.002074	1.41E-03	9.99E-04	1.22E-04	2.07E-03	1.41E-03	9.99E-04	1.85E-05	3.62E-04	2.31E-04	1.62E-04	1.00E-05	2.28E-04	1.10E-04	8.00E-05
1140	259831.4	4083640	0.000124	0.002108	1.43E-03	1.02E-03	1.24E-04	2.11E-03	1.43E-03	1.02E-03	1.88E-05	3.68E-04	2.35E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.13E-05
1141	259820.7	4083645	0.000125	0.002136	1.45E-03	1.03E-03	1.25E-04	2.14E-03	1.45E-03	1.03E-03	1.90E-05	3.73E-04	2.38E-04	1.67E-04	1.03E-05	2.34E-04	1.13E-04	8.24E-05
1142	259812.9	4083653	0.000127	0.002167	1.47E-03	1.04E-03	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.93E-05	3.79E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.36E-05
1143	259802.2	4083662	0.000129	0.002206	1.50E-03	1.06E-03	1.29E-04	2.21E-03	1.50E-03	1.06E-03	1.97E-05	3.85E-04	2.46E-04	1.72E-04	1.07E-05	2.42E-04	1.17E-04	8.51E-05
1144	259816.4	4083545	0.00011	0.001881	1.28E-03	9.06E-04	1.10E-04	1.88E-03	1.28E-03	9.06E-04	1.68E-05	3.29E-04	2.09E-04	1.47E-04	9.11E-06	2.06E-04	9.98E-05	7.25E-05

			UnMitigated				5.74E-08	T2				5.74E-08	T2L3				9.64E-09	T4				5.33E-09
			Yr 1	Yr 2	Yr 3	Yr 4	Total	Yr 1	Yr 2	Yr 3	Yr 4	Total	Yr 1	Yr 2	Yr 3	Yr 4	Total	Yr 1	Yr 2	Yr 3	Yr 4	Total
1	258508.3	4085082	1.20E-09	2.04E-08	1.38E-08	9.84E-09	4.53E-08	1.20E-09	2.04E-08	1.38E-08	9.84E-09	4.53E-08	1.82E-10	3.57E-09	2.27E-09	1.59E-09	7.62E-09	9.90E-11	2.24E-09	1.08E-09	7.88E-10	4.21E-09
2	258533.3	4085082	1.22E-09	2.08E-08	1.41E-08	1.00E-08	4.60E-08	1.22E-09	2.08E-08	1.41E-08	1.00E-08	4.60E-08	1.85E-10	3.62E-09	2.31E-09	1.62E-09	7.74E-09	1.01E-10	2.28E-09	1.10E-09	8.00E-10	4.28E-09
3	258558.3	4085082	1.24E-09	2.11E-08	1.43E-08	1.02E-08	4.68E-08	1.24E-09	2.11E-08	1.43E-08	1.02E-08	4.68E-08	1.88E-10	3.68E-09	2.35E-09	1.64E-09	7.86E-09	1.02E-10	2.31E-09	1.12E-09	8.13E-10	4.35E-09
4	258583.3	4085082	1.26E-09	2.14E-08	1.45E-08	1.03E-08	4.75E-08	1.26E-09	2.14E-08	1.45E-08	1.03E-08	4.75E-08	1.91E-10	3.74E-09	2.38E-09	1.67E-09	7.99E-09	1.04E-10	2.35E-09	1.14E-09	8.26E-10	4.42E-09
5	258608.3	4085082	1.28E-09	2.18E-08	1.48E-08	1.05E-08	4.83E-08	1.28E-09	2.18E-08	1.48E-08	1.05E-08	4.83E-08	1.94E-10	3.80E-09	2.42E-09	1.70E-09	8.12E-09	1.05E-10	2.39E-09	1.16E-09	8.40E-10	4.49E-09
6	258633.3	4085082	1.30E-09	2.21E-08	1.50E-08	1.07E-08	4.91E-08	1.30E-09	2.21E-08	1.50E-08	1.07E-08	4.91E-08	1.97E-10	3.87E-09	2.46E-09	1.73E-09	8.26E-09	1.07E-10	2.43E-09	1.18E-09	8.54E-10	4.57E-09
7	258658.3	4085082	1.32E-09	2.25E-08	1.53E-08	1.09E-08	5.00E-08	1.32E-09	2.25E-08	1.53E-08	1.09E-08	5.00E-08	2.01E-10	3.93E-09	2.51E-09	1.76E-09	8.40E-09	1.09E-10	2.47E-09	1.20E-09	8.68E-10	4.65E-09
8	258683.3	4085082	1.34E-09	2.29E-08	1.55E-08	1.10E-08	5.09E-08	1.34E-09	2.29E-08	1.55E-08	1.10E-08	5.09E-08	2.04E-10	4.00E-09	2.55E-09	1.79E-09	8.55E-09	1.11E-10	2.52E-09	1.22E-09	8.84E-10	4.73E-09
9	258708.3	4085082	1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.18E-08	1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.18E-08	2.08E-10	4.08E-09	2.60E-09	1.82E-09	8.71E-09	1.13E-10	2.56E-09	1.24E-09	9.00E-10	4.82E-09
10	258733.3	4085082	1.40E-09	2.38E-08	1.61E-08	1.15E-08	5.28E-08	1.40E-09	2.38E-08	1.61E-08	1.15E-08	5.28E-08	2.12E-10	4.16E-09	2.65E-09	1.86E-09	8.87E-09	1.15E-10	2.61E-09	1.26E-09	9.17E-10	4.91E-09
11	258758.3	4085082	1.42E-09	2.43E-08	1.65E-08	1.17E-08	5.38E-08	1.42E-09	2.43E-08	1.65E-08	1.17E-08	5.38E-08	2.16E-10	4.24E-09	2.70E-09	1.89E-09	9.05E-09	1.18E-10	2.66E-09	1.29E-09	9.36E-10	5.00E-09
12	258783.3	4085082	1.45E-09	2.48E-08	1.68E-08	1.19E-08	5.49E-08	1.45E-09	2.48E-08	1.68E-08	1.19E-08	5.49E-08	2.21E-10	4.33E-09	2.76E-09	1.93E-09	9.23E-09	1.20E-10	2.72E-09	1.31E-09	9.55E-10	5.11E-09
13	258808.3	4085082	1.48E-09	2.53E-08	1.71E-08	1.22E-08	5.61E-08	1.48E-09	2.53E-08	1.71E-08	1.22E-08	5.61E-08	2.26E-10	4.42E-09	2.81E-09	1.97E-09	9.43E-09	1.23E-10	2.78E-09	1.34E-09	9.75E-10	5.22E-09
14	258833.3	4085082	1.52E-09	2.59E-08	1.75E-08	1.25E-08	5.74E-08	1.52E-09	2.59E-08	1.75E-08	1.25E-08	5.74E-08	2.31E-10	4.52E-09	2.88E-09	2.02E-09	9.64E-09	1.25E-10	2.84E-09	1.37E-09	9.97E-10	5.33E-09
15	259858.3	4085082	2.41E-10	4.11E-09	2.79E-09	1.98E-09	9.12E-09	2.41E-10	4.11E-09	2.79E-09	1.98E-09	9.12E-09	3.67E-11	7.18E-10	4.58E-10	3.21E-10	1.53E-09	1.99E-11	4.51E-10	2.18E-10	1.59E-10	8.48E-10
16	259883.3	4085082	2.33E-10	3.97E-09	2.69E-09	1.91E-09	8.81E-09	2.33E-10	3.97E-09	2.69E-09	1.91E-09	8.81E-09	3.54E-11	6.93E-10	4.42E-10	3.10E-10	1.48E-09	1.92E-11	4.36E-10	2.11E-10	1.53E-10	8.19E-10
17	259908.3	4085082	2.25E-10	3.84E-09	2.60E-09	1.85E-09	8.51E-09	2.25E-10	3.84E-09	2.60E-09	1.85E-09	8.51E-09	3.42E-11	6.70E-10	4.27E-10	2.99E-10	1.43E-09	1.86E-11	4.21E-10	2.04E-10	1.48E-10	7.91E-10
18	259933.3	4085082	2.19E-10	3.73E-09	2.53E-09	1.80E-09	8.27E-09	2.19E-10	3.73E-09	2.53E-09	1.80E-09	8.27E-09	3.33E-11	6.51E-10	4.15E-10	2.91E-10	1.39E-09	1.81E-11	4.09E-10	1.98E-10	1.44E-10	7.69E-10
19	259958.3	4085082	2.14E-10	3.64E-09	2.47E-09	1.76E-09	8.08E-09	2.14E-10	3.64E-09	2.47E-09	1.76E-09	8.08E-09	3.25E-11	6.36E-10	4.05E-10	2.84E-10	1.36E-09	1.76E-11	4.00E-10	1.93E-10	1.40E-10	7.51E-10
20	259983.3	4085082	2.09E-10	3.56E-09	2.41E-09	1.71E-09	7.89E-09	2.09E-10	3.56E-09	2.41E-09	1.71E-09	7.89E-09	3.17E-11	6.21E-10	3.96E-10	2.77E-10	1.33E-09	1.72E-11	3.90E-10	1.89E-10	1.37E-10	7.34E-10
21	258508.3	4085107	1.13E-09	1.93E-08	1.31E-08	9.32E-09	4.29E-08	1.13E-09	1.93E-08	1.31E-08	9.32E-09	4.29E-08	1.72E-10	3.38E-09	2.15E-09	1.51E-09	7.21E-09	9.37E-11	2.12E-09	1.03E-09	7.46E-10	3.99E-09
22	258533.3	4085107	1.15E-09	1.96E-08	1.33E-08	9.45E-09	4.35E-08	1.15E-09	1.96E-08	1.33E-08	9.45E-09	4.35E-08	1.75E-10	3.43E-09	2.18E-09	1.53E-09	7.32E-09	9.51E-11	2.15E-09	1.04E-09	7.57E-10	4.05E-09
23	258558.3	4085107	1.17E-09	1.99E-08	1.35E-08	9.59E-09	4.42E-08	1.17E-09	1.99E-08	1.35E-08	9.59E-09	4.42E-08	1.78E-10	3.48E-09	2.22E-09	1.55E-09	7.43E-09	9.65E-11	2.19E-09	1.06E-09	7.68E-10	4.11E-09
24	258583.3	4085107	1.19E-09	2.02E-08	1.37E-08	9.74E-09	4.48E-08	1.19E-09	2.02E-08	1.37E-08	9.74E-09	4.48E-08	1.80E-10	3.53E-09	2.25E-09	1.58E-09	7.54E-09	9.79E-11	2.22E-09	1.07E-09	7.79E-10	4.17E-09
25	258608.3	4085107	1.20E-09	2.05E-08	1.39E-08	9.89E-09	4.55E-08	1.20E-09	2.05E-08	1.39E-08	9.89E-09	4.55E-08	1.83E-10	3.58E-09	2.28E-09	1.60E-09	7.65E-09	9.94E-11	2.25E-09	1.09E-09	7.91E-10	4.23E-09
26	258633.3	4085107	1.22E-09	2.08E-08	1.41E-08	1.00E-08	4.62E-08	1.22E-09	2.08E-08	1.41E-08	1.00E-08	4.62E-08	1.86E-10	3.64E-09	2.32E-09	1.63E-09	7.77E-09	1.01E-10	2.29E-09	1.11E-09	8.04E-10	4.30E-09
27	258658.3	4085107	1.24E-09	2.12E-08	1.44E-08	1.02E-08	4.70E-08	1.24E-09	2.12E-08	1.44E-08	1.02E-08	4.70E-08	1.89E-10	3.70E-09	2.36E-09	1.65E-09	7.89E-09	1.03E-10	2.32E-09	1.12E-09	8.16E-10	4.37E-09
28	259208.3	4085107	1.48E-09	2.51E-08	1.70E-08	1.21E-08	5.58E-08	1.48E-09	2.51E-08	1.70E-08	1.21E-08	5.58E-08	2.24E-10	4.39E-09	2.80E-09	1.96E-09	9.38E-09	1.22E-10	2.76E-09	1.33E-09	9.70E-10	5.19E-09
29	259233.3	4085107	1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08	1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08	2.08E-10	4.07E-09	2.59E-09	1.82E-09	8.68E-09	1.13E-10	2.56E-09	1.24E-09	8.98E-10	4.80E-09
30	259258.3	4085107	1.25E-09	2.12E-08	1.44E-08	1.02E-08	4.71E-08	1.25E-09	2.12E-08	1.44E-08	1.02E-08	4.71E-08	1.89E-10	3.71E-09	2.36E-09	1.66E-09	7.92E-09	1.03E-10	2.33E-09	1.13E-09	8.19E-10	4.38E-09
31	259283.3	4085107	1.12E-09	1.90E-08	1.29E-08	9.17E-09	4.22E-08	1.12E-09	1.90E-08	1.29E-08	9.17E-09	4.22E-08	1.70E-10	3.32E-09	2.12E-09	1.48E-09	7.10E-09	9.22E-11	2.09E-09	1.01E-09	7.34E-10	3.93E-09
32	259308.3	4085107	9.85E-10	1.68E-08	1.14E-08	8.09E-09	3.72E-08	9.85E-10	1.68E-08	1.14E-08	8.09E-09	3.72E-08	1.50E-10	2.93E-09	1.87E-09	1.31E-09	6.26E-09	8.13E-11	1.84E-09	8.91E-10	6.47E-10	3.46E-09
33	259333.3	4085107	8.74E-10	1.49E-08	1.01E-08	7.18E-09	3.30E-08	8.74E-10	1.49E-08	1.01E-08	7.18E-09	3.30E-08	1.33E-10	2.60E-09	1.66E-09	1.16E-09	5.55E-09	7.22E-11	1.64E-09	7.91E-10	5.74E-10	3.07E-09
34	259358.3	4085107	7.80E-10	1.33E-08	9.01E-09	6.41E-09	2.95E-08	7.80E-10	1.33E-08	9.01E-09	6.41E-09	2.95E-08	1.19E-10	2.32E-09	1.48E-09	1.04E-09	4.96E-09	6.44E-11	1.46E-09	7.06E-10	5.13E-10	2.74E-09
35	259383.3	4085107	7.01E-10	1.19E-08	8.10E-09	5.76E-09	2.65E-08	7.01E-10	1.19E-08	8.10E-09	5.76E-09	2.65E-08	1.07E-10	2.09E-09	1.33E-09	9.32E-10	4.46E-09	5.79E-11	1.31E-09	6.34E-10	4.61E-10	2.46E-09
36	259408.3	4085107	6.34E-10	1.08E-08	7.33E-09	5.21E-09	2.40E-08	6.34E-10	1.08E-08	7.33E-09	5.21E-09	2.40E-08	9.64E-11	1.89E-09	1.20E-09	8.43E-10	4.03E-09	5.24E-11	1.19E-09	5.74E-10	4.17E-10	2.23E-09
37	259433.3	4085107	5.77E-10	9.84E-09	6.67E-09	4.74E-09	2.18E-08	5.77E-10	9.84E-09	6.67E-09	4.74E-09	2.18E-08	8.78E-11	1.72E-09	1.10E-09	7.68E-10	3.67E-09	4.77E-11	1.08E-09	5.22E-10	3.79E-10	2.03E-09
38	259458.3	4085107	5.29E-10	9.02E-09	6.11E-09	4.34E-09	2.00E-08	5.29E-10	9.02E-09	6.11E-09	4.34E-09	2.00E-08	8.04E-11	1.57E-09	1.00E-09	7.03E-10	3.36E-09	4.37E-11	9.90E-10	4.79E-10	3.48E-10	1.86E-09
39	259483.3	4085107	4.88E-10	8.31E-09	5.63E-09	4.00E-09	1.84E-08	4.88E-10	8.31E-09	5.63E-09	4.00E-09	1.84E-08	7.41E-11	1.45E-09	9.25E-10	6.48E-10	3.10E-09	4.03E-11	9.12E-10	4.41E-10	3.20E-10	1.71E-09
40	259508.3	4085107	4.52E-10	7.70E-09	5.22E-09	3.71E-09	1.71E-08	4.52E-10	7.70E-09	5.22E-09	3.71E-09	1.71E-08	6.87E-11	1.35E-09	8.57E-10	6.01E-10	2.87E-09	3.73E-11	8.46E-10	4.09E-10	2.97E-10	1.59E-09
41	259533.3	4085107	4.19E-10	7.15E-09	4.84E-09	3.44E-09	1.59E-08	4.19E-10	7.15E-09	4.84E-09	3.44E-09	1.59E-08	6.37E-11	1.25E-09	7.95E-10	5.57E-10	2.66E-09	3.46E-11	7.84E-10	3.79E-10	2.76E-10	1.47E-09
42	259558.3	4085107	3.90E-10	6.65E-09	4.51E-09	3.21E-09	1.48E-08	3.90E-10	6.65E-09	4.51E-09	3.21E-09	1.48E-08	5.94E-11	1.16E-09	7.41E-10	5.19E-10	2.48E-09	3.22E-11	7.30E-10	3.53E-10	2.57E-10	1.37E-09
43	259583.3	4085107	3.66E-10	6.24E-09	4.23E-09	3.01E-09	1.38E-08	3.66E-10	6.24E-09	4.23E-09	3.01E-09	1.38E-08	5.56E-11	1.09E-09	6.94E-10	4.87E-10	2.33E-09	3.02E-11	6.85E-10	3.31E-10	2.41E-10	1.29E-09
44	259608.3	4085107	3.45E-10	5.88E-09	3.99E-09	2.83E-09	1.31E-08	3.45E-10	5.88E-09	3.99E-09	2.83E-09	1.31E-08	5.25E-11	1.03E-09	6.55E-10	4.59E-10	2.19E-09	2.85E-11	6.46E-10	3.12E-10	2.27E-10	1.21E-09
45	259633.3	4085107	3.26E-10	5.56E-09	3.77E-09	2.68E-09	1.23E-08	3.26E-10	5.56E-09	3.77E-09	2.68E-09	1.23E-08	4.96E-11	9.72E-10	6.19E-10	4.34E-10	2.07E-09	2.69E-11	6.11E-10	2.95E-10	2.15E-10	1.15E-09
46	259658.3	4085107	3.09E-10	5.26E-09	3.57E-09	2.53E-09	1.17E-08	3.09E-10	5.26E-09	3.57E-09	2.53E-09	1.17E-08	4.69E-11	9.19E-10	5.86E-10	4.10E-10	1.96E-09	2.55E-11	5.77E-10	2.79E-10	2.03E-10	1.09E-09
47	259683.3	4085107	2.94E-10	5.01E-09	3.40E-09	2.41E-09	1.11E-08	2.94E-10	5.01E-09	3.40E-09	2.41E-09	1.11E-08	4.47E-11	8.75E-10	5.58E-10	3.91E-10	1.87E-09	2.43E-11	5.50E-10	2.66E-10	1.93E-10	1.03E-09
48	259708.3	4085107	2.80E-10	4.78E-09	3.24E-09	2.30E-09	1.06E-08	2.80E-10	4.78E-09	3.24E-09	2.30E-09	1.06E-08	4.26E-11	8.34E-10	5.32E-10	3.73E-10	1.78E-09	2.31E-11	5.24E-10	2.54E-10	1.84E-10	9.85E-10
49	259733.3	4085107	2.67E-10	4.55E-09	3.09E-09	2.19E-09	1.01E-08	2.67E-10	4.55E-09	3.09E-09	2.19E-09	1.01E-08	4.06E-11	7.95E-10	5.07E-10	3.55E-10	1.70E-09	2.21E-11	5.00E-10	2.42E-10	1.76E-10	9.39E-10
50	259758.3	4085107	2.55E-10	4.36E-09	2.95E-09	2.10E-09	9.66E-09	2.55E-10	4.36E-09	2.95E-09	2.10E-09	9.66E-09	3.88E-11	7.61E-10	4.85E-10	3.40E-10	1.62E-09	2.11E-11	4.78E-10	2.31E-10	1.68E-10	8.98E-10
51	259783.3	4085107	2.46E-10	4.19E-09	2.84E-09	2.02E-09	9.30E-09	2.46E-10	4.19E-09	2.84E-09	2.02E-09	9.30E-09	3.74E-11	7.33E-10	4.67E-10	3.27E-10	1.56E-09	2.03E-11	4.60E-10	2.23E-10	1.62E-10	8.65E-10
52	259808.3	4085107	2.37E-10	4.05E-09	2.74E-09	1.95E-09	8.98E-09	2.37E-10	4.05E-09	2.74E-09	1.95E-09	8.98E-09	3.61E-11	7.07E-10	4.50E-10	3.16E-10	1.51E-09	1.96E-11	4.44E-10	2.15E-10	1.56E-10	8.35E-10
53	259833.3	4085107	2.31E-10	3.94E-09	2.67E-09	1.90E-09	8.73E-09	2.31E-10	3.94E-09	2.67E-09	1.90E-09	8.73E-09	3.51E-11	6.87E-10	4.38E-10	3.07E-10	1.47E-09	1.91E-11	4.32E-10	2.09E-10	1.52E-10	8.12E-10
54	259858.3	4085107	2.24E-10	3.82E-09	2.59E-09	1.84E-09	8.48E-09	2.24E-10	3.82E-09	2.59E-09	1.84E-09	8.48E-09	3.41E-11	6.68E-10	4.26E-10	2.98E-10	1.43E-09	1.85E-11	4.20E-10	2.03E-10	1.47E-10	7.89E-10
55	259883.3	4085107	2.17E-10	3.70E-09	2.51E-09	1.78E-09	8.20E-09	2.17E-10	3.70E-09	2.51E-09	1.78E-09	8.20E-09	3.30E-11	6.45E-10	4.11E-10	2.88E-10	1.38E-09	1.79E-11	4.06E-10	1.96E-10	1.42E-10	7.62E-10
56	259908.3	4085107	2.09E-10	3.57E-09	2.42E-09	1.72E-09	7.92E-09	2.09E-10	3.57E-09	2.42E-09	1.72E-09	7.92E-09	3.19E-11	6.24E-10	3.97E-10	2.79E-10	1.33E-09	1.73E-11	3.92E-10	1.90E-10	1.38E-10	7.37E-10
57	259933.3	4085107	2.04E-10	3.48E-09	2.36E-09	1.68E-09	7.71E-09	2.04E-10	3.48E-09	2.36E-09	1.68E-09	7.71E-09	3.10E-11	6.07E-10	3.87E-10	2.71E-10	1.30E-09	1.68E-11	3.82E-10	1.85E-10	1.34E-10	7.17E-10
58	259958.3	4085107	2.00E-10	3.40E-09	2.31E-09	1.64E-09	7.55E-09	2.00E-10	3.40E-09	2.31E-09	1.64E-09	7.55E-09	3.03E-11	5.94E-10	3.79E-10	2.65E-10	1.27E-09	1.65E-11	3.73E-10	1.81E-10	1.31E-10	7.02E-10
59	259983.3	4085107	1.95E-10	3.33E-09	2.26E-09	1.60E-09	7.39E-09	1.95E-10	3.33E-09	2.26E-09	1.60E-09	7.39E-09	2.97E-11	5.82E-10	3.71E-10	2.60E-10	1.24E-09	1.61E-11	3.66E-10	1.77E-10	1.28E-10	6.87E-10
60	258508.3	4085132	1.07E-09	1.83E-08	1.24E-08	8.82E-09	4.06E-08	1.07E-09	1.83E-08	1.24E-08	8.82E-09	4.06E-08	1.63E-10	3.20E-09	2.04E-09	1.43E-09	6.83E-09	8.87E-11	2.01E-09	9.72E-10	7.06E-10	3.78E-09
61	258533.3	4085132	1.09E-09	1.86E-08	1.26E-08	8.94E-09	4.12E-08	1.09E-09	1.86E-08	1.26E-08	8.94E-09	4.12E-08	1.66E-10	3.24E-09	2.07E-09	1.45E-09	6.92E-09	8.99E-11	2.04E-09	9.85E-10	7.16E-10	3.83E-09
62	258558.3	4085132	1.10E-09	1.88E-08	1.28E-08	9.06E-09	4.17E-08	1.10E-09	1.88E-08	1.28E-08	9.06E-09	4.17E-08	1.68E-10	3.29E-09	2.09E-09	1.47E-09	7.01E-09	9.11E-11	2.06E-09	9.99E-10	7.25E-10	3.88E-09
63	258583.3	4085132	1.12E-09	1.91E-08	1.29E-08	9.19E-09	4.23E-08	1.12E-09	1.91E-08	1.29E-08	9.19E-09	4.23E-08	1.70E-10	3.33E-09	2.12E-09	1.49E-09	7.11E-09	9.24E-11	2.09E-09	1.01E-09	7.35E-10	3.93E-09
64	258608.3	4085132	1.13E-09	1.93E-08	1.31E-08	9.32E-09	4.29E-08	1.13E-09	1.93E-08	1.31E-08	9.32E-09	4.29E-08	1.72E-10	3.38E-09	2.15E-09	1.51E-09	7.21E-09	9.37E-11	2.12E-09	1.03E-09	7.46E-10	3.99E-09
65	258633.3	4085132	1.15E-09	1.96E-08	1.33E-08	9.45E-09	4.35E-08	1.15E-09	1.96E-08	1.33E-08	9.45E-09	4.35E-08	1.75E-10	3.43E-09	2.18E-09	1.53E-09	7.31E-09	9.50E-11	2.15E-09	1.04E-09	7.56E-10	4.04E-09
66	258658.3	4085132	1.17E-09	1.99E-08	1.35E-08	9.58E-09	4.41E-08	1.17E-09	1.99E-08	1.35E-08	9.58E-09	4.41E-08	1.77E-10	3.47E-09	2.21E-09	1.55E-09	7.42E-09	9.64E-11	2.18E-09	1.06E-09	7.67E-10	4.10E-09
67	258683.3	4085132	1.18E-09	2.02E-08	1.37E-08	9.73E-09	4.48E-08	1.18E-09	2.02E-08	1.37E-08	9.73E-09	4.48E-08	1.80E-10	3.53E-09	2.25E-09	1.57E-09	7.53E-09	9.78E-11	2.22E-09	1.07E-09	7.78E-10	4.16E-09
68	258708.3	4085132	1.20E-09	2.05E-08	1.39E-08	9.87E-09	4.55E-08	1.20E-09	2.05E-08	1.39E-08	9.87E-09	4.55E-08	1.83E-10	3.58E-09	2.28E-09	1.60E-09	7.64E-09	9.93E-11	2.25E-09	1.09E-09	7.90E-10	4.23E-09
69	258733.3	4085132	1.22E-09	2.08E-08	1.41E-08	1.00E-08	4.62E-08	1.22E-09	2.08E-08	1.41E-08	1.00E-08	4.62E-08	1.86E-10	3.63E-09	2.32E-09	1.62E-09	7.76E-09	1.01E-10	2.28E-09	1.10E-09	8.02E-10	4.29E-09
70	258758.3	4085132	1.24E-09	2.11E-08	1.43E-08	1.02E-08	4.69E-08	1.24E-09	2.11E-08	1.43E-08	1.02E-08	4.69E-08	1.89E-10	3.69E-09	2.35E-09	1.65E-09	7.88E-09	1.02E-10	2.32E-09	1.12E-09	8.15E-10	4.36E-09
71	258783.3	4085132	1.26E-09	2.15E-08	1.46E-08	1.03E-08	4.76E-08	1.26E-09	2.15E-08	1.46E-08	1.03E-08	4.76E-08	1.92E-10	3.75E-09	2.39E-09	1.68E-09	8.01E-09	1.04E-10	2.36E-09	1.14E-09	8.28E-10	4.43E-09
72	258808.3	4085132	1.28E-09	2.18E-08	1.48E-08	1.05E-08	4.84E-08	1.28E-09	2.18E-08	1.48E-08	1.05E-08	4.84E-08	1.95E-10	3.81E-09	2.43E-09	1.70E-09	8.14E-09	1.06E-10	2.40E-09	1.16E-09	8.41E-10	4.50E-09
73	258833.3	4085132	1.30E-09	2.22E-08	1.50E-08	1.07E-08	4.92E-08	1.30E-09	2.22E-08	1.50E-08	1.07E-08	4.92E-08	1.98E-10	3.87E-09	2.47E-09	1.73E-09	8.27E-09	1.07E-10	2.43E-09	1.18E-09	8.55E-10	4.57E-09
74	258858.3	4085132	1.32E-09	2.25E-08	1.53E-08	1.09E-08	5.00E-08	1.32E-09	2.25E-08	1.53E-08	1.09E-08	5.00E-08	2.01E-10	3.94E-09	2.51E-09	1.76E-09	8.41E-09	1.09E-10	2.47E-09	1.20E-09	8.69E-10	4.65E-09
75	258883.3	4085132	1.34E-09	2.29E-08	1.55E-08	1.10E-08	5.08E-08	1.34E-09	2.29E-08	1.55E-08	1.10E-08	5.08E-08	2.04E-10	4.00E-09	2.55E-09	1.79E-09	8.55E-09	1.11E-10	2.52E-09	1.22E-09	8.84E-10	4.73E-09
76	258908.3	4085132	1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08	1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08	2.08E-10	4.07E-09	2.59E-09	1.82E-09	8.68E-09	1.13E-10	2.56E-09	1.24E-09	8.98E-10	4.80E-09
77	258933.3	4085132	1.39E-09	2.37E-08	1.60E-08	1.14E-08	5.25E-08	1.39E-09	2.37E-08	1.60E-08	1.14E-08	5.25E-08	2.11E-10	4.13E-09	2.63E-09	1.85E-09	8.82E-09	1.15E-10	2.60E-09	1.26E-09	9.12E-10	4.88E-09
78	258958.3	4085132	1.41E-09	2.40E-08	1.63E-08	1.16E-08	5.33E-08	1.41E-09	2.40E-08	1.63E-08	1.16E-08	5.33E-08	2.14E-10	4.20E-09	2.67E-09	1.87E-09	8.96E-09	1.16E-10	2.64E-09	1.28E-09	9.26E-10	4.95E-09
79	258983.3	4085132	1.43E-09	2.44E-08	1.65E-08	1.17E-08	5.40E-08	1.43E-09	2.44E-08	1.65E-08	1.17E-08	5.40E-08	2.17E-10	4.26E-09	2.71E-09	1.90E-09	9.08E-09	1.18E-10	2.67E-09	1.29E

| | | |

258	258958.3	4085207	1.021E-09	1.74E-08	1.18E-08	8.38E-09	3.86E-08
259	258983.3	4085207	1.011E-09	1.72E-08	1.17E-08	8.31E-09	3.82E-08
260	259008.3	4085207	9.966E-10	1.70E-08	1.15E-08	8.19E-09	3.77E-08
261	259033.3	4085207	9.625E-10	1.64E-08	1.11E-08	7.91E-09	3.64E-08
262	259058.3	4085207	9.366E-10	1.60E-08	1.08E-08	7.69E-09	3.54E-08
263	259083.3	4085207	9.053E-10	1.54E-08	1.05E-08	7.44E-09	3.42E-08
264	259108.3	4085207	8.691E-10	1.48E-08	1.00E-08	7.14E-09	3.29E-08
265	259133.3	4085207	8.284E-10	1.41E-08	9.57E-09	6.80E-09	3.13E-08
266	259158.3	4085207	7.839E-10	1.34E-08	9.06E-09	6.44E-09	2.96E-08
267	259183.3	4085207	7.365E-10	1.26E-08	8.51E-09	6.05E-09	2.79E-08
268	259208.3	4085207	6.883E-10	1.17E-08	7.96E-09	5.65E-09	2.60E-08
269	259233.3	4085207	6.41E-10	1.09E-08	7.41E-09	5.27E-09	2.42E-08
270	259258.3	4085207	6.029E-10	1.03E-08	6.97E-09	4.95E-09	2.28E-08
271	259283.3	4085207	5.578E-10	9.51E-09	6.45E-09	4.58E-09	2.11E-08
272	259308.3	4085207	5.155E-10	8.79E-09	5.96E-09	4.23E-09	1.95E-08
273	259333.3	4085207	4.773E-10	8.14E-09	5.52E-09	3.92E-09	1.81E-08
274	259358.3	4085207	4.43E-10	7.55E-09	5.12E-09	3.64E-09	1.68E-08
275	259383.3	4085207	4.117E-10	7.02E-09	4.76E-09	3.38E-09	1.56E-08
276	259408.3	4085207	3.834E-10	6.54E-09	4.43E-09	3.15E-09	1.45E-08
277	259433.3	4085207	3.582E-10	6.11E-09	4.14E-09	2.94E-09	1.35E-08
278	259458.3	4085207	3.362E-10	5.73E-09	3.89E-09	2.76E-09	1.27E-08
279	259483.3	4085207	3.168E-10	5.40E-09	3.66E-09	2.60E-09	1.20E-08
280	259508.3	4085207	2.996E-10	5.11E-09	3.46E-09	2.46E-09	1.13E-08
281	259533.3	4085207	2.842E-10	4.85E-09	3.28E-09	2.33E-09	1.07E-08
282	259558.3	4085207	2.703E-10	4.61E-09	3.12E-09	2.22E-09	1.02E-08
283	259583.3	4085207	2.576E-10	4.39E-09	2.98E-09	2.12E-09	9.74E-09
284	259608.3	4085207	2.461E-10	4.20E-09	2.84E-09	2.02E-09	9.31E-09
285	259633.3	4085207	2.355E-10	4.02E-09	2.72E-09	1.93E-09	8.91E-09
286	259658.3	4085207	2.259E-10	3.85E-09	2.61E-09	1.86E-09	8.54E-09
287	259683.3	4085207	2.17E-10	3.70E-09	2.51E-09	1.78E-09	8.21E-09
288	259708.3	4085207	2.074E-10	3.54E-09	2.40E-09	1.70E-09	7.85E-09
289	259733.3	4085207	1.998E-10	3.41E-09	2.31E-09	1.64E-09	7.56E-09
290	259758.3	4085207	1.933E-10	3.30E-09	2.23E-09	1.59E-09	7.31E-09
291	259783.3	4085207	1.864E-10	3.18E-09	2.15E-09	1.53E-09	7.05E-09
292	259808.3	4085207	1.809E-10	3.08E-09	2.09E-09	1.49E-09	6.84E-09
293	259833.3	4085207	1.758E-10	3.00E-09	2.03E-09	1.44E-09	6.65E-09
294	259858.3	4085207	1.717E-10	2.93E-09	1.98E-09	1.41E-09	6.49E-09
295	259883.3	4085207	1.676E-10	2.86E-09	1.94E-09	1.38E-09	6.34E-09
296	259908.3	4085207	1.632E-10	2.78E-09	1.89E-09	1.34E-09	6.17E-09
297	259933.3	4085207	1.588E-10	2.71E-09	1.84E-09	1.30E-09	6.01E-09
298	259958.3	4085207	1.548E-10	2.64E-09	1.79E-09	1.27E-09	5.85E-09
299	259983.3	4085207	1.516E-10	2.58E-09	1.75E-09	1.24E-09	5.73E-09
300	258508.3	4085232	8.638E-10	1.47E-08	9.98E-09	7.10E-09	3.27E-08
301	258533.3	4085232	8.713E-10	1.49E-08	1.01E-08	7.16E-09	3.30E-08
302	258558.3	4085232	8.786E-10	1.50E-08	1.02E-08	7.22E-09	3.32E-08
303	258583.3	4085232	8.859E-10	1.51E-08	1.02E-08	7.28E-09	3.35E-08
304	258608.3	4085232	8.931E-10	1.52E-08	1.03E-08	7.34E-09	3.38E-08
305	258633.3	4085232	9E-10	1.53E-08	1.04E-08	7.39E-09	3.40E-08
306	258658.3	4085232	9.068E-10	1.55E-08	1.05E-08	7.45E-09	3.43E-08
307	258683.3	4085232	9.132E-10	1.56E-08	1.06E-08	7.50E-09	3.45E-08
308	258708.3	4085232	9.193E-10	1.57E-08	1.06E-08	7.55E-09	3.48E-08
309	258733.3	4085232	9.248E-10	1.58E-08	1.07E-08	7.60E-09	3.50E-08
310	258758.3	4085232	9.297E-10	1.59E-08	1.07E-08	7.64E-09	3.52E-08
311	258783.3	4085232	9.338E-10	1.59E-08	1.08E-08	7.67E-09	3.53E-08
312	258808.3	4085232	9.368E-10	1.60E-08	1.08E-08	7.69E-09	3.54E-08
313	258833.3	4085232	9.384E-10	1.60E-08	1.08E-08	7.71E-09	3.55E-08
314	258858.3	4085232	9.383E-10	1.60E-08	1.08E-08	7.71E-09	3.55E-08
315	258883.3	4085232	9.361E-10	1.60E-08	1.08E-08	7.69E-09	3.54E-08
316	258908.3	4085232	9.314E-10	1.59E-08	1.08E-08	7.65E-09	3.52E-08
317	258933.3	4085232	9.237E-10	1.57E-08	1.07E-08	7.59E-09	3.49E-08
318	258958.3	4085232	9.125E-10	1.56E-08	1.05E-08	7.50E-09	3.45E-08
319	258983.3	4085232	8.909E-10	1.52E-08	1.03E-08	7.32E-09	3.37E-08
320	259008.3	4085232	8.692E-10	1.48E-08	1.00E-08	7.14E-09	3.29E-08
321	259033.3	4085232	8.411E-10	1.43E-08	9.72E-09	6.91E-09	3.18E-08
322	259058.3	4085232	8.14E-10	1.39E-08	9.41E-09	6.69E-09	3.08E-08
323	259083.3	4085232	7.836E-10	1.34E-08	9.06E-09	6.44E-09	2.96E-08
324	259108.3	4085232	7.503E-10	1.28E-08	8.67E-09	6.16E-09	2.84E-08
325	259133.3	4085232	7.146E-10	1.22E-08	8.26E-09	5.87E-09	2.70E-08
326	259158.3	4085232	6.767E-10	1.15E-08	7.82E-09	5.56E-09	2.56E-08
327	259183.3	4085232	6.371E-10	1.09E-08	7.36E-09	5.23E-09	2.41E-08
328	259208.3	4085232	5.974E-10	1.02E-08	6.90E-09	4.91E-09	2.26E-08
329	259233.3	4085232	5.588E-10	9.53E-09	6.46E-09	4.59E-09	2.11E-08
330	259258.3	4085232	5.246E-10	8.94E-09	6.06E-09	4.31E-09	1.98E-08
331	259283.3	4085232	4.936E-10	8.42E-09	5.71E-09	4.05E-09	1.87E-08
332	259308.3	4085232	4.599E-10	7.84E-09	5.32E-09	3.78E-09	1.74E-08
333	259333.3	4085232	4.293E-10	7.32E-09	4.96E-09	3.53E-09	1.62E-08
334	259358.3	4085232	4.015E-10	6.85E-09	4.64E-09	3.30E-09	1.52E-08
335	259383.3	4085232	3.757E-10	6.41E-09	4.34E-09	3.09E-09	1.42E-08
336	259408.3	4085232	3.517E-10	6.00E-09	4.07E-09	2.89E-09	1.33E-08
337	259433.3	4085232	3.298E-10	5.62E-09	3.81E-09	2.71E-09	1.25E-08
338	259458.3	4085232	3.1E-10	5.29E-09	3.58E-09	2.55E-09	1.17E-08
339	259483.3	4085232	2.925E-10	4.99E-09	3.38E-09	2.40E-09	1.11E-08
340	259508.3	4085232	2.769E-10	4.72E-09	3.20E-09	2.27E-09	1.05E-08
341	259533.3	4085232	2.63E-10	4.48E-09	3.04E-09	2.16E-09	9.95E-09
342	259558.3	4085232	2.504E-10	4.27E-09	2.89E-09	2.06E-09	9.47E-09
343	259583.3	4085232	2.391E-10	4.08E-09	2.76E-09	1.96E-09	9.04E-09
344	259608.3	4085232	2.287E-10	3.90E-09	2.64E-09	1.88E-09	8.65E-09
345	259633.3	4085232	2.192E-10	3.74E-09	2.53E-09	1.80E-09	8.29E-09
346	259658.3	4085232	2.106E-10	3.59E-09	2.43E-09	1.73E-09	7.96E-09
347	259683.3	4085232	2.02E-10	3.44E-09	2.33E-09	1.66E-09	7.64E-09
348	259708.3	4085232	1.943E-10	3.31E-09	2.25E-09	1.60E-09	7.35E-09
349	259733.3	4085232	1.876E-10	3.20E-09	2.17E-09	1.54E-09	7.09E-09
350	259758.3	4085232	1.813E-10	3.09E-09	2.10E-09	1.49E-09	6.86E-09
351	259783.3	4085232	1.751E-10	2.99E-09	2.02E-09	1.44E-09	6.62E-09
352	259808.3	4085232	1.7E-10	2.90E-09	1.97E-09	1.40E-09	6.43E-09
353	259833.3	4085232	1.654E-10	2.82E-09	1.91E-09	1.36E-09	6.25E-09
354	259858.3	4085232	1.616E-10	2.75E-09	1.87E-09	1.33E-09	6.11E-09
355	259883.3	4085232	1.578E-10	2.69E-09	1.82E-09	1.30E-09	5.97E-09
356	259908.3	4085232	1.541E-10	2.63E-09	1.78E-09	1.27E-09	5.83E-09
357	259933.3	4085232	1.504E-10	2.56E-09	1.74E-09	1.24E-09	5.69E-09
358	259958.3	4085232	1.467E-10	2.50E-09	1.70E-09	1.20E-09	5.55E-09
359	259983.3	4085232	1.433E-10	2.44E-09	1.66E-09	1.18E-09	5.42E-09
360	258508.3	4085257	8.179E-10	1.39E-08	9.45E-09	6.72E-09	3.09E-08
361	258533.3	4085257	8.238E-10	1.40E-08	9.52E-09	6.77E-09	3.12E-08
362	258558.3	4085257	8.296E-10	1.41E-08	9.59E-09	6.81E-09	3.14E-08
363	258583.3	4085257	8.352E-10	1.42E-08	9.65E-09	6.86E-09	3.16E-08
364	258608.3	4085257	8.405E-10	1.43E-08	9.71E-09	6.90E-09	3.18E-08
365	258633.3	4085257	8.455E-10	1.44E-08	9.77E-09	6.94E-09	3.20E-08
366	258658.3	4085257	8.501E-10	1.45E-08	9.83E-09	6.98E-09	3.22E-08
367	258683.3	4085257	8.542E-10	1.46E-08	9.87E-09	7.02E-09	3.23E-08
368	258708.3	4085257	8.578E-10	1.46E-08	9.91E-09	7.05E-09	3.24E-08
369	258733.3	4085257	8.607E-10	1.47E-08	9.95E-09	7.07E-09	3.26E-08
370	258758.3	4085257	8.627E-10	1.47E-08	9.97E-09	7.09E-09	3.26E-08
371	258783.3	4085257	8.636E-10	1.47E-08	9.98E-09	7.09E-09	3.27E-08
372	258808.3	4085257	8.632E-10	1.47E-08	9.98E-09	7.09E-09	3.26E-08
373	258833.3	4085257	8.613E-10	1.47E-08	9.95E-09	7.07E-09	3.26E-08
374	258858.3	4085257	8.574E-10	1.46E-08	9.91E-09	7.04E-09	3.24E-08
375	258883.3	4085257	8.513E-10	1.45E-08	9.84E-09	6.99E-09	3.22E-08
376	258908.3	4085257	8.427E-10	1.44E-08	9.74E-09	6.92E-09	3.19E-08
377	258933.3	4085257	8.311E-10	1.42E-08	9.61E-09	6.83E-09	3.14E-08
378	258958.3	4085257	8.082E-10	1.38E-08	9.34E-09	6.64E-09	3.06E-08
379	258983.3	4085257	7.869E-10	1.34E-08	9.10E-09	6.46E-09	2.98E-08
380	259008.3	4085257	7.661E-10	1.31E-08	8.85E-09	6.29E-09	2.90E-08
381	259033.3	4085257	7.425E-10	1.27E-08	8.58E-09	6.10E-09	2.81E-08
382	259058.3	4085257	7.165E-10	1.22E-08	8.28E-09	5.89E-09	2.71E-08
383	259083.3	4085257	6.886E-10	1.17E-08	7.96E-09	5.66E-09	2.60E-08
384	259108.3	4085257	6.59E-10	1.12E-08	7.62E-09	5.41E-09	2.49E-08
385	259133.3	4085257	6.28E-10	1.07E-08	7.26E-09	5.16E-09	2.38E-08
386	259158.3	4085257	5.955E-10	1.02E-08	6.88E-09	4.89E-09	2.25E-08
387	259183.3	4085257	5.62E-10	9.58E-09	6.50E-09	4.62E-09	2.13E-08

	1.02E-09	1.74E-08	1.18E-08	8.38E-09	3.86E-08		
	1.01E-09	1.72E-08	1.17E-08	8.31E-09	3.82E-08		
	9.97E-10	1.70E-08	1.15E-08	8.19E-09	3.77E-08		
	9.62E-10	1.64E-08	1.11E-08	7.91E-09	3.64E-08		
	9.37E-10	1.60E-08	1.08E-08	7.69E-09	3.54E-08		
	9.05E-10	1.54E-08	1.05E-08	7.44E-09	3.42E-08		
	8.69E-10	1.48E-08	1.00E-08	7.14E-09	3.29E-08		
	8.28E-10	1.41E-08	9.57E-09	6.80E-09	3.13E-08		
	7.84E-10	1.34E-08	9.06E-09	6.44E-09	2.96E-08		
	7.36E-10	1.26E-08	8.51E-09	6.05E-09	2.79E-08		
	6.88E-10	1.17E-08	7.96E-09	5.65E-09	2.60E-08		
	6.41E-10	1.09E-08	7.41E-09	5.27E-09	2.42E-08		
	6.03E-10	1.03E-08	6.97E-09	4.95E-09	2.28E-08		
	5.58E-10	9.51E-09	6.45E-09	4.58E-09	2.11E-08		
	5.16E-10	8.79E-09	5.96E-09	4.23E-09	1.95E-08		
	4.77E-10	8.14E-09	5.52E-09	3.92E-09	1.81E-08		
	4.43E-10	7.55E-09	5.12E-09	3.64E-09	1.68E-08		
	4.12E-10	7.02E-09	4.76E-09	3.38E-09	1.56E-08		
	3.83E-10	6.54E-09	4.43E-09	3.15E-09	1.45E-08		
	3.58E-10	6.11E-09	4.14E-09	2.94E-09	1.35E-08		
	3.36E-10	5.73E-09	3.89E-09	2.76E-09	1.27E-08		
	3.17E-10	5.40E-09	3.66E-09	2.60E-09	1.20E-08		
	3.00E-10	5.11E-09	3.46E-09	2.46E-09	1.13E-08		
	2.84E-10	4.85E-09	3.28E-09	2.33E-09	1.07E-08		
	2.70E-10	4.61E-09	3.12E-09	2.22E-09	1.02E-08		
	2.58E-10	4.39E-09	2.98E-09	2.12E-09	9.74E-09		
	2.46E-10	4.20E-09	2.84E-09	2.02E-09	9.31E-09		
	2.36E-10	4.02E-09	2.72E-09	1.93E-09	8.91E-09		
	2.26E-10	3.85E-09	2.61E-09	1.86E-09	8.54E-09		
	2.17E-10	3.70E-09	2.51E-09	1.78E-09	8.21E-09		
	2.07E-10	3.54E-09	2.40E-09	1.70E-09	7.85E-09		
	2.00E-10	3.41E-09	2.31E-09	1.64E-09	7.56E-09		
	1.93E-10	3.30E-09	2.23E-09	1.59E-09	7.31E-09		
	1.86E-10	3.18E-09	2.15E-09	1.53E-09	7.05E-09		
	1.81E-10	3.08E-09	2.09E-09	1.49E-09	6.84E-09		
	1.76E-10	3.00E-09	2.03E-09	1.44E-09	6.65E-09		
	1.72E-10	2.93E-09	1.98E-09	1.41E-09	6.49E-09		
	1.68E-10	2.86E-09	1.94E-09	1.38E-09	6.34E-09		
	1.63E-10	2.78E-09	1.89E-09	1.34E-09	6.17E-09		
	1.59E-10	2.71E-09	1.84E-09	1.30E-09	6.01E-09		
	1.55E-10	2.64E-09	1.79E-09	1.27E-09	5.85E-09		
	1.52E-10	2.58E-09	1.75E-09	1.24E-09	5.73E-09		
	8.64E-10	1.47E-08	9.98E-09	7.10E-09	3.27E-08		
	8.71E-10	1.49E-08	1.01E-08	7.16E-09	3.30E-08		
	8.79E-10	1.50E-08	1.02E-08	7.22E-09	3.32E-08		
	8.86E-10	1.51E-08	1.02E-08	7.28E-09	3.35E-08		
	8.93E-10	1.52E-08	1.03E-08	7.34E-09	3.38E-08		
	9.00E-10	1.53E-08	1.04E-08	7.39E-09	3.40E-08		
	9.07E-10	1.55E-08	1.05E-08	7.45E-09	3.43E-08		
	9.13E-10	1.56E-08	1.06E-08	7.50E-09	3.45E-08		
	9.19E-10	1.57E-08	1.06E-08	7.55E-09	3.48E-08		
	9.25E-10	1.58E-08	1.07E-08	7.60E-09	3.50E-08		
	9.30E-10	1.59E-08	1.07E-08	7.64E-09	3.52E-08		
	9.34E-10	1.59E-08	1.08E-08	7.67E-09	3.53E-08		
	9.37E-10	1.60E-08	1.08E-08	7.69E-09	3.54E-08		
	9.38E-10	1.60E-08	1.08E-08	7.71E-09	3.55E-08		
	9.38E-10	1.60E-08	1.08E-08	7.71E-09	3.55E-08		
	9.36E-10	1.60E-08	1.08E-08	7.69E-09	3.54E-08		
	9.31E-10	1.59E-08	1.08E-08	7.65E-09	3.52E-08		
	9.24E-10	1.57E-08	1.07E-08	7.59E-09	3.49E-08		
	9.13E-10	1.56E-08	1.05E-08	7.50E-09	3.45E-08		
	8.91E-10	1.52E-08	1.03E-08	7.32E-09	3.37E-08		
	8.69E-10	1.48E-08	1.00E-08	7.14E-09	3.29E-08		
	8.41E-10	1.43E-08	9.72E-09	6.91E-09	3.18E-08		
	8.14E-10	1.39E-08	9.41E-09	6.69E-09	3.08E-08		
	7.84E-10	1.34E-08	9.06E-09	6.44E-09	2.96E-08		
	7.50E-10	1.28E-08	8.67E-09	6.16E-09	2.84E-08		
	7.15E-10	1.22E-08	8.26E-09	5.87E-09	2.70E-08		
	6.77E-10	1.15E-08	7.82E-09	5.56E-09	2.56E-08		
	6.37E-10	1.09E-08	7.36E-09	5.23E-09	2.41E-08		
	5.97E-10	1.02E-08	6.90E-09	4.91E-09	2.26E-08		
	5.59E-10	9.53E-09	6.46E-09	4.59E-09	2.11E-08		
	5.25E-10	8.94E-09	6.06E-09	4.31E-09	1.98E-08		
	4.94E-10	8.42E-09	5.71E-09	4.05E-09	1.87E-08		
	4.60E-10	7.84E-09	5.32E-09	3.78E-09	1.74E-08		
	4.29E-10	7.32E-09	4.96E-09	3.53E-09	1.62E-08		
	4.02E-10	6.85E-09	4.64E-09	3.30E-09	1.52E-08		
	3.76E-10	6.41E-09	4.34E-09	3.09E-09	1.42E-08		
	3.52E-10	6.00E-09	4.07E-09	2.89E-09	1.33E-08		
	3.30E-10	5.62E-09	3.81E-09	2.71E-09	1.25E-08		
	3.10E-10	5.29E-09	3.58E-09	2.55E-09	1.17E-08		
	2.93E-10	4.99E-09	3.38E-09	2.40E-09	1.11E-08		
	2.77E-10	4.72E-09	3.20E-09	2.27E-09	1.05E-08		
	2.63E-10	4.48E-09	3.04E-09	2.16E-09	9.95E-09		
	2.50E-10	4.27E-09	2.89E-09	2.06E-09	9.47E-09		
	2.39E-10	4.08E-09	2.76E-09	1.96E-09	9.04E-09		
	2.29E-10	3.90E-09	2.64E-09	1.88E-09	8.65E-09		
	2.19E-10	3.74E-09	2.53E-09	1.80E-09	8.29E-09		
	2.11E-10	3.59E-09	2.43E-09	1.73E-09	7.96E-09		
	2.02E-10	3.44E-09	2.33E-09	1.66E-09	7.64E-09		
	1.94E-10	3.31E-09	2.25E-09	1.60E-09	7.35E-09		
	1.88E-10	3.20E-09	2.17E-09	1.54E-09	7.09E-09		
	1.81E-10	3.09E-09	2.10E-09	1.49E-09	6.86E-09		
	1.75E-10	2.99E-09	2.02E-09	1.44E-09	6.62E-09		
	1.70E-10	2.90E-09	1.97E-09	1.40E-09	6.43E-09		
	1.65E-10	2.82E-09	1.91E-09	1.36E-09	6.25E-09		
	1.62E-10	2.75E-09	1.87E-09	1.33E-09	6.11E-09		
	1.58E-10	2.69E-09	1.82E-09	1.30E-09	5.97E-09		
	1.54E-10	2.63E-09	1.78E-09	1.27E-09	5.83E-09		
	1.50E-10	2.56E-09	1.74E-09	1.24E-09	5.69E-09		
	1.47E-10	2.50E-09	1.70E-09	1.20E-09	5.55E-09		
	1.43E-10	2.44E-09	1.66E-09	1.18E-09	5.42E-09		
	8.18E-10	1.39E-08	9.45E-09	6.72E-09	3.09E-08		
	8.24E-10	1.40E-08	9.52E-09	6.77E-09	3.12E-08		
	8.30E-10	1.41E-08	9.59E-09	6.81E-09	3.14E-08		
	8.35E-10	1.42E-08	9.65E-09	6.86E-09	3.16E-08		
	8.40E-10	1.43E-08	9.71E-09	6.90E-09	3.18E-08		
	8.45E-10	1.44E-08	9.77E-09	6.94E-09	3.20E-08		
	8.50E-10	1.45E-08	9.83E-09	6.98E-09	3.22E-08		
	8.54E-10	1.46E-08	9.87E-09	7.02E-09	3.23E-08		
	8.58E-10	1.46E-08	9.91E-09	7.05E-09	3.24E-08		
	8.61E-10	1.47E-08	9.95E-09	7.07E-09	3.26E-08		
	8.63E-10	1.47E-08	9.97E-09	7.09E-09	3.26E-08		
	8.64E-10	1.47E-08	9.98E-09	7.09E-09	3.27E-08		
	8.63E-10	1.47E-08	9.98E-09	7.09E-09	3.26E-08		
	8.61E-10	1.47E-08	9.95E-09	7.07E-09	3.26E-08		
	8.57E-10	1.46E-08	9.91E-09	7.04E-09	3.24E-08		
	8.51E-10	1.45E-08	9.84E-09	6.99E-09	3.22E-08		
	8.43E-10	1.44E-08	9.74E-09	6.92E-09	3.19E-08		
	8.31E-10	1.42E-08	9.61E-09	6.83E-09	3.14E-08		
	8.08E-10	1.38E-08	9.34E-09	6.64E-09	3.06E-08		
	7.87E-10	1.34E-08	9.10E-09	6.46E-09	2.98E-08		
	7.66E-10	1.31E-08	8.85E-09	6.29E-09	2.90E-08		
	7.42E-10	1.27E-08	8.58E-09	6.10E-09	2.81E-08		
	7.17E-10	1.22E-08	8.28E-09	5.89E-09	2.71E-08		
	6.89E-10	1.17E-08	7.96E-09	5.66E-09	2.60E-08		
	6.59E-10	1.12E-08	7.62E-09	5.41E-09	2.49E-08		
	6.28E-10	1.07E-08	7.26E-09	5.16E-09	2.38E-08		
	5.96E-10	1.02E-08	6.88E-09	4.89E-09	2.25E-08		
	5.62E-10	9.58E-09	6.50E-09	4.62E-09	2.13E-08		

	1.55E-10	3.04E-09	1.94E-09	1.36E-09	6.49E-09		
	1.54E-10	3.01E-09	1.92E-09	1.34E-09	6.43E-09		
	1.52E-10	2.97E-09	1.89E-09	1.33E-09	6.34E-09		
	1.46E-10	2.87E-09	1.83E-09	1.28E-09	6.12E-09		
	1.42E-10	2.79E-09	1.78E-09	1.25E-09	5.95E-09		
	1.38E-10	2.70E-09	1.72E-09	1.20E-09	5.76E-09		
	1.32E-10	2.59E-09	1.65E-09	1.16E-09	5.52E-09		
	1.26E-10	2.47E-09	1.57E-09	1.10E-09	5.27E-09		
	1.19E-10	2.33E-09	1.49E-09	1.04E-09	4.98E-09		
	1.12E-10	2.19E-09	1.40E-09	9.79E-10	4.68E-09		
	1.05E-10	2.05E-09	1.31E-09	9.15E-10	4.38E-09		
	9.75E-11	1.91E-09	1.22E-09	8.53E-10	4.07E-09		
	9.17E-11	1.80E-09	1.14E-09	8.02E-10	3.83E-09		
	8.48E-11	1.66E-09	1.06E-09	7.42E-10	3.55E-09		
	7.84E-11	1.54E-09	9.78E-10	6.86E-10	3.28E-09		
	7.26E-11	1.42E-09	9.06E-10	6.35E-10	3.03E-09		
	6.74E-11	1.32E-09	8.41E-10	5.89E-10	2.82E-09		
	6.26E-11	1.23E-09	7.81E-10	5.48E-10	2.62E-09		
	5.83E-11	1.14E-09	7.27E-10	5.10E-10	2.44E-09		
	5.45E-11	1.07E-09	6.80E-10	4.76E-10	2.28E-09		
	5.11E-11	1.00E-09	6.38E-10	4.47E-10	2.14E-09

| | | |

| | | |

648	259708.3	4085357	1.466E-10	2.50E-09	1.69E-09	1.20E-09	5.55E-09	1.47E-10	2.50E-09	1.69E-09	1.20E-09	5.55E-09	2.23E-11	4.37E-10	2.78E-10	1.95E-10	9.32E-10	1.21E-11	2.74E-10	1.33E-10	9.64E-11	5.16E-10
649	259733.3	4085357	1.411E-10	2.41E-09	1.63E-09	1.16E-09	5.34E-09	1.41E-10	2.41E-09	1.63E-09	1.16E-09	5.34E-09	2.15E-11	4.20E-10	2.68E-10	1.88E-10	8.97E-10	1.17E-11	2.64E-10	1.28E-10	9.28E-11	4.96E-10
650	259758.3	4085357	1.36E-10	2.32E-09	1.57E-09	1.12E-09	5.14E-09	1.36E-10	2.32E-09	1.57E-09	1.12E-09	5.14E-09	2.07E-11	4.05E-10	2.58E-10	1.81E-10	8.64E-10	1.12E-11	2.54E-10	1.23E-10	8.94E-11	4.78E-10
651	259783.3	4085357	1.321E-10	2.25E-09	1.53E-09	1.09E-09	5.00E-09	1.32E-10	2.25E-09	1.53E-09	1.09E-09	5.00E-09	2.01E-11	3.93E-10	2.51E-10	1.76E-10	8.40E-10	1.09E-11	2.47E-10	1.20E-10	8.68E-11	4.65E-10
652	259808.3	4085357	1.292E-10	2.20E-09	1.49E-09	1.06E-09	4.89E-09	1.29E-10	2.20E-09	1.49E-09	1.06E-09	4.89E-09	1.97E-11	3.85E-10	2.45E-10	1.72E-10	8.22E-10	1.07E-11	2.42E-10	1.17E-10	8.50E-11	4.54E-10
653	259833.3	4085357	1.259E-10	2.15E-09	1.45E-09	1.03E-09	4.76E-09	1.26E-10	2.15E-09	1.45E-09	1.03E-09	4.76E-09	1.91E-11	3.75E-10	2.39E-10	1.67E-10	8.00E-10	1.04E-11	2.36E-10	1.14E-10	8.28E-11	4.43E-10
654	259858.3	4085357	1.228E-10	2.09E-09	1.42E-09	1.01E-09	4.64E-09	1.23E-10	2.09E-09	1.42E-09	1.01E-09	4.64E-09	1.87E-11	3.66E-10	2.33E-10	1.63E-10	7.80E-10	1.01E-11	2.30E-10	1.11E-10	8.07E-11	4.32E-10
655	259883.3	4085357	1.201E-10	2.05E-09	1.39E-09	9.87E-10	4.54E-09	1.20E-10	2.05E-09	1.39E-09	9.87E-10	4.54E-09	1.83E-11	3.58E-10	2.28E-10	1.60E-10	7.64E-10	9.92E-12	2.25E-10	1.09E-10	7.90E-11	4.22E-10
656	259908.3	4085357	1.177E-10	2.01E-09	1.36E-09	9.66E-10	4.45E-09	1.18E-10	2.01E-09	1.36E-09	9.66E-10	4.45E-09	1.79E-11	3.50E-10	2.23E-10	1.56E-10	7.48E-10	9.72E-12	2.20E-10	1.06E-10	7.73E-11	4.14E-10
657	259933.3	4085357	1.153E-10	1.97E-09	1.33E-09	9.47E-10	4.36E-09	1.15E-10	1.97E-09	1.33E-09	9.47E-10	4.36E-09	1.75E-11	3.43E-10	2.19E-10	1.53E-10	7.33E-10	9.52E-12	2.16E-10	1.04E-10	7.58E-11	4.05E-10
658	259958.3	4085357	1.131E-10	1.93E-09	1.31E-09	9.29E-10	4.28E-09	1.13E-10	1.93E-09	1.31E-09	9.29E-10	4.28E-09	1.72E-11	3.37E-10	2.15E-10	1.50E-10	7.19E-10	9.34E-12	2.12E-10	1.02E-10	7.43E-11	3.98E-10
659	259983.3	4085357	1.111E-10	1.89E-09	1.28E-09	9.12E-10	4.20E-09	1.11E-10	1.89E-09	1.28E-09	9.12E-10	4.20E-09	1.69E-11	3.31E-10	2.11E-10	1.48E-10	7.06E-10	9.17E-12	2.08E-10	1.01E-10	7.30E-11	3.91E-10
660	258508.3	4085382	6.193E-10	1.06E-08	7.16E-09	5.09E-09	2.34E-08	6.19E-10	1.06E-08	7.16E-09	5.09E-09	2.34E-08	9.42E-11	1.84E-09	1.17E-09	8.24E-10	3.94E-09	5.11E-11	1.16E-09	5.60E-10	4.07E-10	2.18E-09
661	258533.3	4085382	6.191E-10	1.06E-08	7.16E-09	5.09E-09	2.34E-08	6.19E-10	1.06E-08	7.16E-09	5.09E-09	2.34E-08	9.41E-11	1.84E-09	1.17E-09	8.23E-10	3.94E-09	5.11E-11	1.16E-09	5.60E-10	4.07E-10	2.18E-09
662	258558.3	4085382	6.184E-10	1.05E-08	7.15E-09	5.08E-09	2.34E-08	6.18E-10	1.05E-08	7.15E-09	5.08E-09	2.34E-08	9.40E-11	1.84E-09	1.17E-09	8.22E-10	3.93E-09	5.11E-11	1.16E-09	5.60E-10	4.07E-10	2.17E-09
663	258583.3	4085382	6.172E-10	1.05E-08	7.13E-09	5.07E-09	2.33E-08	6.17E-10	1.05E-08	7.13E-09	5.07E-09	2.33E-08	9.39E-11	1.84E-09	1.17E-09	8.21E-10	3.92E-09	5.10E-11	1.15E-09	5.59E-10	4.06E-10	2.17E-09
664	258608.3	4085382	6.154E-10	1.05E-08	7.11E-09	5.06E-09	2.33E-08	6.15E-10	1.05E-08	7.11E-09	5.06E-09	2.33E-08	9.36E-11	1.83E-09	1.17E-09	8.18E-10	3.91E-09	5.08E-11	1.15E-09	5.57E-10	4.05E-10	2.16E-09
665	258633.3	4085382	6.13E-10	1.05E-08	7.09E-09	5.04E-09	2.32E-08	6.13E-10	1.05E-08	7.09E-09	5.04E-09	2.32E-08	9.32E-11	1.83E-09	1.16E-09	8.15E-10	3.90E-09	5.06E-11	1.15E-09	5.55E-10	4.03E-10	2.16E-09
666	258658.3	4085382	6.099E-10	1.04E-08	7.05E-09	5.01E-09	2.31E-08	6.10E-10	1.04E-08	7.05E-09	5.01E-09	2.31E-08	9.27E-11	1.82E-09	1.16E-09	8.11E-10	3.88E-09	5.04E-11	1.14E-09	5.52E-10	4.01E-10	2.14E-09
667	258683.3	4085382	6.022E-10	1.03E-08	6.96E-09	4.95E-09	2.28E-08	6.02E-10	1.03E-08	6.96E-09	4.95E-09	2.28E-08	9.16E-11	1.79E-09	1.14E-09	8.01E-10	3.83E-09	4.97E-11	1.13E-09	5.45E-10	3.96E-10	2.12E-09
668	258708.3	4085382	5.96E-10	1.02E-08	6.89E-09	4.90E-09	2.25E-08	5.96E-10	1.02E-08	6.89E-09	4.90E-09	2.25E-08	9.06E-11	1.77E-09	1.13E-09	7.93E-10	3.79E-09	4.92E-11	1.12E-09	5.39E-10	3.92E-10	2.10E-09
669	258733.3	4085382	5.903E-10	1.01E-08	6.82E-09	4.85E-09	2.23E-08	5.90E-10	1.01E-08	6.82E-09	4.85E-09	2.23E-08	8.98E-11	1.76E-09	1.12E-09	7.85E-10	3.75E-09	4.87E-11	1.10E-09	5.34E-10	3.88E-10	2.08E-09
670	258758.3	4085382	5.837E-10	9.95E-09	6.75E-09	4.79E-09	2.21E-08	5.84E-10	9.95E-09	6.75E-09	4.79E-09	2.21E-08	8.88E-11	1.74E-09	1.11E-09	7.76E-10	3.71E-09	4.82E-11	1.09E-09	5.28E-10	3.84E-10	2.05E-09
671	258783.3	4085382	5.76E-10	9.82E-09	6.66E-09	4.73E-09	2.18E-08	5.76E-10	9.82E-09	6.66E-09	4.73E-09	2.18E-08	8.76E-11	1.72E-09	1.09E-09	7.66E-10	3.66E-09	4.76E-11	1.08E-09	5.21E-10	3.79E-10	2.03E-09
672	258808.3	4085382	5.673E-10	9.67E-09	6.56E-09	4.66E-09	2.15E-08	5.67E-10	9.67E-09	6.56E-09	4.66E-09	2.15E-08	8.63E-11	1.69E-09	1.08E-09	7.54E-10	3.61E-09	4.69E-11	1.06E-09	5.13E-10	3.73E-10	1.99E-09
673	258833.3	4085382	5.576E-10	9.51E-09	6.44E-09	4.58E-09	2.11E-08	5.58E-10	9.51E-09	6.44E-09	4.58E-09	2.11E-08	8.48E-11	1.66E-09	1.06E-09	7.42E-10	3.54E-09	4.60E-11	1.04E-09	5.05E-10	3.67E-10	1.96E-09
674	258858.3	4085382	5.467E-10	9.32E-09	6.32E-09	4.49E-09	2.07E-08	5.47E-10	9.32E-09	6.32E-09	4.49E-09	2.07E-08	8.31E-11	1.63E-09	1.04E-09	7.27E-10	3.48E-09	4.51E-11	1.02E-09	4.95E-10	3.59E-10	1.92E-09
675	258883.3	4085382	5.349E-10	9.12E-09	6.18E-09	4.39E-09	2.02E-08	5.35E-10	9.12E-09	6.18E-09	4.39E-09	2.02E-08	8.13E-11	1.59E-09	1.01E-09	7.11E-10	3.40E-09	4.42E-11	1.00E-09	4.84E-10	3.52E-10	1.88E-09
676	258908.3	4085382	5.221E-10	8.90E-09	6.03E-09	4.29E-09	1.97E-08	5.22E-10	8.90E-09	6.03E-09	4.29E-09	1.97E-08	7.94E-11	1.55E-09	9.91E-10	6.94E-10	3.32E-09	4.31E-11	9.77E-10	4.72E-10	3.43E-10	1.84E-09
677	258933.3	4085382	5.084E-10	8.67E-09	5.88E-09	4.18E-09	1.92E-08	5.08E-10	8.67E-09	5.88E-09	4.18E-09	1.92E-08	7.73E-11	1.51E-09	9.65E-10	6.76E-10	3.23E-09	4.20E-11	9.52E-10	4.60E-10	3.34E-10	1.79E-09
678	258958.3	4085382	4.941E-10	8.42E-09	5.71E-09	4.06E-09	1.87E-08	4.94E-10	8.42E-09	5.71E-09	4.06E-09	1.87E-08	7.51E-11	1.47E-09	9.37E-10	6.57E-10	3.14E-09	4.08E-11	9.25E-10	4.47E-10	3.25E-10	1.74E-09
679	258983.3	4085382	4.792E-10	8.17E-09	5.54E-09	3.94E-09	1.81E-08	4.79E-10	8.17E-09	5.54E-09	3.94E-09	1.81E-08	7.29E-11	1.43E-09	9.09E-10	6.37E-10	3.05E-09	3.96E-11	8.97E-10	4.34E-10	3.15E-10	1.68E-09
680	259008.3	4085382	4.638E-10	7.91E-09	5.36E-09	3.81E-09	1.75E-08	4.64E-10	7.91E-09	5.36E-09	3.81E-09	1.75E-08	7.05E-11	1.38E-09	8.80E-10	6.17E-10	2.95E-09	3.83E-11	8.68E-10	4.20E-10	3.05E-10	1.63E-09
681	259033.3	4085382	4.481E-10	7.64E-09	5.18E-09	3.68E-09	1.69E-08	4.48E-10	7.64E-09	5.18E-09	3.68E-09	1.69E-08	6.81E-11	1.33E-09	8.50E-10	5.96E-10	2.85E-09	3.70E-11	8.39E-10	4.06E-10	2.95E-10	1.58E-09
682	259058.3	4085382	4.321E-10	7.37E-09	4.99E-09	3.55E-09	1.63E-08	4.32E-10	7.37E-09	4.99E-09	3.55E-09	1.63E-08	6.57E-11	1.29E-09	8.20E-10	5.75E-10	2.75E-09	3.57E-11	8.09E-10	3.91E-10	2.84E-10	1.52E-09
683	259083.3	4085382	4.16E-10	7.09E-09	4.81E-09	3.42E-09	1.57E-08	4.16E-10	7.09E-09	4.81E-09	3.42E-09	1.57E-08	6.33E-11	1.24E-09	7.89E-10	5.53E-10	2.64E-09	3.44E-11	7.78E-10	3.76E-10	2.73E-10	1.46E-09
684	259108.3	4085382	3.996E-10	6.81E-09	4.62E-09	3.28E-09	1.51E-08	4.00E-10	6.81E-09	4.62E-09	3.28E-09	1.51E-08	6.08E-11	1.19E-09	7.58E-10	5.31E-10	2.54E-09	3.30E-11	7.48E-10	3.62E-10	2.63E-10	1.41E-09
685	259133.3	4085382	3.828E-10	6.53E-09	4.42E-09	3.14E-09	1.45E-08	3.83E-10	6.53E-09	4.42E-09	3.14E-09	1.45E-08	5.82E-11	1.14E-09	7.26E-10	5.09E-10	2.43E-09	3.16E-11	7.16E-10	3.46E-10	2.52E-10	1.35E-09
686	259158.3	4085382	3.657E-10	6.24E-09	4.23E-09	3.00E-09	1.38E-08	3.66E-10	6.24E-09	4.23E-09	3.00E-09	1.38E-08	5.56E-11	1.09E-09	6.94E-10	4.86E-10	2.33E-09	3.02E-11	6.84E-10	3.31E-10	2.40E-10	1.29E-09
687	259183.3	4085382	3.485E-10	5.94E-09	4.03E-09	2.86E-09	1.32E-08	3.48E-10	5.94E-09	4.03E-09	2.86E-09	1.32E-08	5.30E-11	1.04E-09	6.61E-10	4.63E-10	2.22E-09	2.88E-11	6.52E-10	3.15E-10	2.29E-10	1.23E-09
688	259208.3	4085382	3.314E-10	5.65E-09	3.83E-09	2.72E-09	1.25E-08	3.31E-10	5.65E-09	3.83E-09	2.72E-09	1.25E-08	5.04E-11	9.87E-10	6.29E-10	4.41E-10	2.11E-09	2.74E-11	6.20E-10	3.00E-10	2.18E-10	1.17E-09
689	259233.3	4085382	3.15E-10	5.37E-09	3.64E-09	2.59E-09	1.19E-08	3.15E-10	5.37E-09	3.64E-09	2.59E-09	1.19E-08	4.79E-11	9.38E-10	5.98E-10	4.19E-10	2.00E-09	2.60E-11	5.90E-10	2.85E-10	2.07E-10	1.11E-09
690	259258.3	4085382	2.998E-10	5.11E-09	3.47E-09	2.46E-09	1.13E-08	3.00E-10	5.11E-09	3.47E-09	2.46E-09	1.13E-08	4.56E-11	8.93E-10	5.69E-10	3.99E-10	1.91E-09	2.48E-11	5.61E-10	2.71E-10	1.97E-10	1.05E-09
691	259283.3	4085382	2.861E-10	4.88E-09	3.31E-09	2.35E-09	1.08E-08	2.86E-10	4.88E-09	3.31E-09	2.35E-09	1.08E-08	4.35E-11	8.52E-10	5.43E-10	3.81E-10	1.82E-09	2.36E-11	5.35E-10	2.59E-10	1.88E-10	1.01E-09
692	259308.3	4085382	2.74E-10	4.67E-09	3.17E-09	2.25E-09	1.04E-08	2.74E-10	4.67E-09	3.17E-09	2.25E-09	1.04E-08	4.17E-11	8.16E-10	5.20E-10	3.64E-10	1.74E-09	2.26E-11	5.13E-10	2.48E-10	1.80E-10	9.64E-10
693	259333.3	4085382	2.633E-10	4.49E-09	3.04E-09	2.16E-09	9.96E-09	2.63E-10	4.49E-09	3.04E-09	2.16E-09	9.96E-09	4.00E-11	7.84E-10	5.00E-10	3.50E-10	1.67E-09	2.17E-11	4.93E-10	2.38E-10	1.73E-10	9.26E-10
694	259358.3	4085382	2.536E-10	4.32E-09	2.93E-09	2.08E-09	9.59E-09	2.54E-10	4.32E-09	2.93E-09	2.08E-09	9.59E-09	3.86E-11	7.55E-10	4.81E-10	3.37E-10	1.61E-09	2.09E-11	4.75E-10	2.29E-10	1.67E-10	8.92E-10
695	259383.3	4085382	2.443E-10	4.17E-09	2.82E-09	2.01E-09	9.24E-09	2.44E-10	4.17E-09	2.82E-09	2.01E-09	9.24E-09	3.71E-11	7.28E-10	4.64E-10	3.25E-10	1.55E-09	2.02E-11	4.57E-10	2.21E-10	1.61E-10	8.59E-10
696	259408.3	4085382	2.356E-10	4.02E-09	2.72E-09	1.93E-09	8.91E-09	2.36E-10	4.02E-09	2.72E-09	1.93E-09	8.91E-09	3.58E-11	7.01E-10	4.47E-10	3.13E-10	1.50E-09	1.95E-11	4.41E-10	2.13E-10	1.55E-10	8.28E-10
697	259433.3	4085382	2.264E-10	3.86E-09	2.62E-09	1.86E-09	8.56E-09	2.26E-10	3.86E-09	2.62E-09	1.86E-09	8.56E-09	3.44E-11	6.74E-10	4.30E-10	3.01E-10	1.44E-09	1.87E-11	4.24E-10	2.05E-10	1.49E-10	7.96E-10
698	259458.3	4085382	2.174E-10	3.71E-09	2.51E-09	1.79E-09	8.22E-09	2.17E-10	3.71E-09	2.51E-09	1.79E-09	8.22E-09	3.31E-11	6.47E-10	4.12E-10	2.89E-10	1.38E-09	1.80E-11	4.07E-10	1.97E-10	1.43E-10	7.64E-10
699	259483.3	4085382	2.079E-10	3.54E-09	2.40E-09	1.71E-09	7.86E-09	2.08E-10	3.54E-09	2.40E-09	1.71E-09	7.86E-09	3.16E-11	6.19E-10	3.94E-10	2.76E-10	1.32E-09	1.72E-11	3.89E-10	1.88E-10	1.37E-10	7.31E-10
700	259508.3	4085382	1.985E-10	3.38E-09	2.29E-09	1.63E-09	7.51E-09	1.98E-10	3.38E-09	2.29E-09	1.63E-09	7.51E-09	3.02E-11	5.91E-10	3.77E-10	2.64E-10	1.26E-09	1.64E-11	3.71E-10	1.80E-10	1.30E-10	6.98E-10
701	259533.3	4085382	1.895E-10	3.23E-09	2.19E-09	1.56E-09	7.17E-09	1.89E-10	3.23E-09	2.19E-09	1.56E-09	7.17E-09	2.88E-11	5.64E-10	3.59E-10	2.52E-10	1.20E-09	1.56E-11	3.55E-10	1.71E-10	1.25E-10	6.66E-10
702	259558.3	4085382	1.809E-10	3.08E-09	2.09E-09	1.49E-09	6.84E-09	1.81E-10	3.08E-09	2.09E-09	1.49E-09	6.84E-09	2.75E-11	5.39E-10	3.43E-10	2.41E-10	1.15E-09	1.49E-11	3.38E-10	1.64E-10	1.19E-10	6.36E-10
703	259583.3	4085382	1.728E-10	2.95E-09	2.00E-09	1.42E-09	6.54E-09	1.73E-10	2.95E-09	2.00E-09	1.42E-09	6.54E-09	2.63E-11	5.15E-10	3.28E-10	2.30E-10	1.10E-09	1.43E-11	3.23E-10	1.56E-10	1.14E-10	6.08E-10
704	259608.3	4085382	1.653E-10	2.82E-09	1.91E-09	1.36E-09	6.25E-09	1.65E-10	2.82E-09	1.91E-09	1.36E-09	6.25E-09	2.51E-11	4.92E-10	3.14E-10	2.20E-10	1.05E-09	1.37E-11	3.09E-10	1.50E-10	1.09E-10	5.81E-10
705	259633.3	4085382	1.583E-10	2.70E-09	1.83E-09	1.30E-09	5.99E-09	1.58E-10	2.70E-09	1.83E-09	1.30E-09	5.99E-09	2.41E-11	4.71E-10	3.00E-10	2.11E-10	1.01E-09	1.31E-11	2.96E-10	1.43E-10	1.04E-10	5.57E-10
706	259658.3	4085382	1.514E-10	2.58E-09	1.75E-09	1.24E-09	5.73E-09	1.51E-10	2.58E-09	1.75E-09	1.24E-09	5.73E-09	2.30E-11	4.51E-10	2.87E-10	2.01E-10	9.63E-10	1.25E-11	2.83E-10	1.37E-10	9.96E-11	5.33E-10
707	259683.3	4085382	1.456E-10	2.48E-09	1.68E-09	1.20E-09	5.51E-09	1.46E-10	2.48E-09	1.68E-09	1.20E-09	5.51E-09	2.21E-11	4.34E-10	2.76E-10	1.94E-10	9.26E-10	1.20E-11	2.73E-10	1.32E-10	9.57E-11	5.12E-10
708	259708.3	4085382	1.401E-10	2.39E-09	1.62E-09	1.15E-09	5.30E-09	1.40E-10	2.39E-09	1.62E-09	1.15E-09	5.30E-09	2.13E-11	4.17E-10	2.66E-10	1.86E-10	8.90E-10	1.16E-11	2.62E-10	1.27E-10	9.21E-11	4.93E-10
709	259733.3	4085382	1.35E-10	2.30E-09	1.56E-09	1.11E-09	5.10E-09	1.35E-10	2.30E-09	1.56E-09	1.11E-09	5.10E-09	2.05E-11	4.02E-10	2.56E-10	1.79E-10	8.58E-10	1.11E-11	2.53E-10	1.22E-10	8.87E-11	4.75E-10
710	259758.3	4085382	1.304E-10	2.22E-09	1.51E-09	1.07E-09	4.93E-09	1.30E-10	2.22E-09	1.51E-09	1.07E-09	4.93E-09	1.98E-11	3.88E-10	2.47E-10	1.73E-10	8.29E-10	1.08E-11	2.44E-10	1.18E-10	8.57E-11	4.59E-10
711	259783.3	4085382	1.265E-10	2.16E-09	1.46E-09	1.04E-09	4.79E-09	1.27E-10	2.16E-09	1.46E-09	1.04E-09	4.79E-09	1.92E-11	3.77E-10	2.40E-10	1.68E-10	8.04E-10	1.04E-11	2.37E-10	1.15E-10	8.32E-11	4.45E-10
712	259808.3	4085382	1.234E-10	2.10E-09	1.43E-09	1.01E-09	4.67E-09	1.23E-10	2.10E-09	1.43E-09	1.01E-09	4.67E-09	1.88E-11	3.67E-10	2.34E-10	1.64E-10	7.84E-10	1.02E-11	2.31E-10	1.12E-10	8.11E-11	4.34E-10
713	259833.3	4085382	1.2E-10	2.05E-09	1.39E-09	9.86E-10	4.54E-09	1.20E-10	2.05E-09	1.39E-09	9.86E-10	4.54E-09	1.83E-11	3.57E-10	2.28E-10	1.60E-10	7.63E-10	9.91E-12	2.25E-10	1.09E-10	7.89E-11	4.22E-10
714	259858.3	4085382	1.172E-10	2.00E-09	1.35E-09	9.63E-10	4.43E-09	1.17E-10	2.00E-09	1.35E-09	9.63E-10	4.43E-09	1.78E-11	3.49E-10	2.22E-10	1.56E-10	7.45E-10	9.68E-12	2.19E-10	1.06E-10	7.70E-11	4.12E-10
715	259883.3	4085382	1.146E-10	1.95E-09	1.32E-09	9.41E-10	4.33E-09	1.15E-10	1.95E-09	1.32E-09	9.41E-10	4.33E-09	1.74E-11	3.41E-10	2.17E-10	1.52E-10	7.28E-10	9.46E-12	2.14E-10	1.04E-10	7.53E-11	4.03E-10
716	259908.3	4085382	1.121E-10	1.91E-09	1.30E-09	9.21E-10	4.24E-09	1.12E-10	1.91E-09	1.30E-09	9.21E-10	4.24E-09	1.70E-11	3.34E-10	2.13E-10	1.49E-10	7.12E-10	9.26E-12	2.10E-10	1.01E-10	7.37E-11	3.94E-10
717	259933.3	4085382	1.098E-10	1.87E-09	1.27E-09	9.02E-10	4.15E-09	1.10E-10	1.87E-09	1.27E-09	9.02E-10	4.15E-09	1.67E-11	3.27E-10	2.08E-10	1.46E-10	6.98E-10	9.07E-12	2.05E-10	9.93E-11	7.22E-11	3.86E-10
718	259958.3	4085382	1.077E-10	1.84E-09	1.24E-09	8.84E-10	4.07E-09	1.08E-10	1.84E-09	1.24E-09	8.84E-10	4.07E-09	1.64E-11	3.21E-10	2.04E-10	1.43E-10	6.84E-10	8.89E-12	2.01E-10	9.74E-11	7.08E-11	3.79E-10
719	259983.3	4085382	1.057E-10	1.80E-09	1.22E-09	8.68E-10	4.00E-09	1.06E-10	1.80E-09	1.22E-09	8.68E-10	4.00E-09	1.61E-11	3.15E-10	2.01E-10	1.41E-10	6.72E-10	8.73E-12	1.98E-10	9.57E-11	6.95E-11	3.72E-10
720	258508.3	4085407	5.852E-10	9.98E-09	6.76E-09	4.81E-09	2.21E-08	5.85E-10	9.98E-09	6.76E-09	4.81E-09	2.21E-08	8.90E-11	1.74E-09	1.11E-09	7.78E-10	3.72E-09	4.83E-11	1.10E-09	5.30E-10	3.85E-10	2.06E-09
721	258533.3	4085407	5.841E-10	9.96E-09	6.75E-09	4.80E-09	2.21E-08	5.84E-10	9.96E-09	6.75E-09	4.80E-09	2.21E-08	8.88E-11	1.74E-09	1.11E-09	7.77E-10	3.71E-09	4.82E-11	1.09E-09	5.29E-10	3.84E-10	2.05E-09
722	258558.3	4085407	5.825E-10	9.93E-09	6.73E-09	4.78E-09	2.20E-08	5.83E-10	9.93E-09	6.73E-09	4.78E-09	2.20E-08	8.86E-11	1.73E-09	1.11E-09	7.75E-10	3.70E-09	4.81E-11	1.09E-09	5.27E-10	3.83E-10	2.05E-09
723	258583.3	4085407	5.804E-10	9.90E-09	6.71E-09	4.77E-09	2.20E-08	5.80E-10	9.90E-09	6.71E-09	4.77E-09	2.20E-08	8.83E-11	1.73E-09	1.10E-09	7.72E-10	3.69E-09	4.79E-11	1.09E-09	5.25E-10	3.82E-10	2.04E-09
724	258608.3	4085407	5.777E-10	9.85E-09	6.68E-09	4.75E-09	2.18E-08	5.78E-10	9.85E-09	6.68E-09	4.75E-09	2.18E-08	8.78E-11	1.72E-09	1.10E-09	7.68E-10	3.67E-09	4.77E-11	1.08E-09	5.23E-10	3.80E-10	2.03E-09
725	258633.3	4085407	5.744E-10	9.79E-09	6.64E-09	4.72E-09	2.17E-08	5.74E-10	9.79E-09	6.64E-09	4.72E-09	2.17E-08	8.73E-11	1.71E-09	1.09E-09	7.64E-10	3.65E-09	4.74E-11	1.07E-09	5.20E-10	3.78E-10	2.02E-09
726	258658.3	4085407	5.689E-10	9.70E-09	6.58E-09	4.67E-09	2.15E-08	5.69E-10	9.70E-09	6.58E-09	4.67E-09	2.15E-08	8.65E-11	1.69E-09	1.08E-09	7.57E-10	3.62E-09	4.70E-11	1.06E-09	5.15E-10	3.74E-10	2.00E-09
727	258683.3	4085407	5.609E-10	9.56E-09	6.48E-09	4.61E-09	2.12E-08	5.61E-10	9.56E-09	6.48E-09	4.61E-09	2.12E-08	8.53E-11	1.67E-09	1.06E-09	7.46E-10	3.57E-09	4.63E-11	1

| | | |

| | | |

| | | |

1168	259208.3	4085582	2.015E-10	3.44E-09	2.33E-09	1.66E-09	7.62E-09
1169	259233.3	4085582	1.939E-10	3.30E-09	2.24E-09	1.59E-09	7.33E-09
1170	259258.3	4085582	1.868E-10	3.18E-09	2.16E-09	1.53E-09	7.06E-09
1171	259283.3	4085582	1.805E-10	3.08E-09	2.09E-09	1.48E-09	6.83E-09
1172	259308.3	4085582	1.75E-10	2.98E-09	2.02E-09	1.44E-09	6.62E-09
1173	259333.3	4085582	1.702E-10	2.90E-09	1.97E-09	1.40E-09	6.44E-09
1174	259358.3	4085582	1.66E-10	2.83E-09	1.92E-09	1.36E-09	6.28E-09
1175	259383.3	4085582	1.623E-10	2.77E-09	1.88E-09	1.33E-09	6.14E-09
1176	259408.3	4085582	1.587E-10	2.71E-09	1.83E-09	1.30E-09	6.00E-09
1177	259433.3	4085582	1.551E-10	2.64E-09	1.79E-09	1.27E-09	5.87E-09
1178	259458.3	4085582	1.514E-10	2.58E-09	1.75E-09	1.24E-09	5.73E-09
1179	259483.3	4085582	1.476E-10	2.52E-09	1.71E-09	1.21E-09	5.58E-09
1180	259508.3	4085582	1.436E-10	2.45E-09	1.66E-09	1.18E-09	5.43E-09
1181	259533.3	4085582	1.395E-10	2.38E-09	1.61E-09	1.15E-09	5.28E-09
1182	259558.3	4085582	1.357E-10	2.31E-09	1.57E-09	1.11E-09	5.13E-09
1183	259583.3	4085582	1.314E-10	2.24E-09	1.52E-09	1.08E-09	4.97E-09
1184	259608.3	4085582	1.269E-10	2.16E-09	1.47E-09	1.04E-09	4.80E-09
1185	259633.3	4085582	1.225E-10	2.09E-09	1.42E-09	1.01E-09	4.63E-09
1186	259658.3	4085582	1.182E-10	2.01E-09	1.37E-09	9.71E-10	4.47E-09
1187	259683.3	4085582	1.138E-10	1.94E-09	1.31E-09	9.34E-10	4.30E-09
1188	259708.3	4085582	1.095E-10	1.87E-09	1.27E-09	9.00E-10	4.14E-09
1189	259733.3	4085582	1.056E-10	1.80E-09	1.22E-09	8.67E-10	3.99E-09
1190	259758.3	4085582	1.018E-10	1.74E-09	1.18E-09	8.36E-10	3.85E-09
1191	259783.3	4085582	9.825E-11	1.68E-09	1.14E-09	8.07E-10	3.72E-09
1192	259808.3	4085582	9.49E-11	1.62E-09	1.10E-09	7.80E-10	3.59E-09
1193	259833.3	4085582	9.176E-11	1.56E-09	1.06E-09	7.54E-10	3.47E-09
1194	259858.3	4085582	8.898E-11	1.52E-09	1.03E-09	7.31E-10	3.37E-09
1195	259883.3	4085582	8.633E-11	1.47E-09	9.98E-10	7.09E-10	3.27E-09
1196	259908.3	4085582	8.382E-11	1.43E-09	9.69E-10	6.89E-10	3.17E-09
1197	259933.3	4085582	8.152E-11	1.39E-09	9.42E-10	6.70E-10	3.08E-09
1198	259958.3	4085582	7.941E-11	1.35E-09	9.18E-10	6.52E-10	3.00E-09
1199	259983.3	4085582	7.749E-11	1.32E-09	8.96E-10	6.36E-10	2.93E-09
1200	258418.6	4084100	2.142E-09	3.65E-08	2.48E-08	1.76E-08	8.10E-08
1201	258443.6	4084100	2.214E-09	3.77E-08	2.56E-08	1.82E-08	8.37E-08
1202	258468.6	4084100	2.289E-09	3.90E-08	2.65E-08	1.88E-08	8.66E-08
1203	258493.6	4084100	2.368E-09	4.04E-08	2.74E-08	1.95E-08	8.96E-08
1204	258518.6	4084100	2.45E-09	4.18E-08	2.83E-08	2.01E-08	9.27E-08
1205	258543.6	4084100	2.536E-09	4.32E-08	2.93E-08	2.08E-08	9.59E-08
1206	258568.6	4084100	2.626E-09	4.48E-08	3.03E-08	2.16E-08	9.93E-08
1207	258593.6	4084100	2.729E-09	4.65E-08	3.15E-08	2.24E-08	1.03E-07
1208	258618.6	4084100	2.836E-09	4.84E-08	3.28E-08	2.33E-08	1.07E-07
1209	258643.6	4084100	2.938E-09	5.01E-08	3.40E-08	2.41E-08	1.11E-07
1210	258668.6	4084100	3.043E-09	5.19E-08	3.52E-08	2.50E-08	1.15E-07
1211	258693.6	4084100	3.149E-09	5.37E-08	3.64E-08	2.59E-08	1.19E-07
1212	258718.6	4084100	3.257E-09	5.55E-08	3.76E-08	2.68E-08	1.23E-07
1213	258743.6	4084100	3.364E-09	5.74E-08	3.89E-08	2.76E-08	1.27E-07
1214	258768.6	4084100	3.478E-09	5.93E-08	4.02E-08	2.86E-08	1.32E-07
1215	258793.6	4084100	3.596E-09	6.13E-08	4.16E-08	2.95E-08	1.36E-07
1216	258818.6	4084100	3.662E-09	6.24E-08	4.23E-08	3.01E-08	1.39E-07
1217	258843.6	4084100	3.691E-09	6.29E-08	4.27E-08	3.03E-08	1.40E-07
1218	258868.6	4084100	3.685E-09	6.28E-08	4.26E-08	3.03E-08	1.39E-07
1219	258893.6	4084100	3.772E-09	6.43E-08	4.36E-08	3.10E-08	1.43E-07
1220	258418.6	4084125	2.218E-09	3.78E-08	2.56E-08	1.82E-08	8.39E-08
1221	258443.6	4084125	2.296E-09	3.91E-08	2.65E-08	1.89E-08	8.68E-08
1222	258468.6	4084125	2.379E-09	4.06E-08	2.75E-08	1.95E-08	9.00E-08
1223	258493.6	4084125	2.465E-09	4.20E-08	2.85E-08	2.03E-08	9.32E-08
1224	258518.6	4084125	2.557E-09	4.36E-08	2.95E-08	2.10E-08	9.67E-08
1225	258543.6	4084125	2.652E-09	4.52E-08	3.07E-08	2.18E-08	1.00E-07
1226	258568.6	4084125	2.752E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07
1227	258593.6	4084125	2.868E-09	4.89E-08	3.31E-08	2.36E-08	1.08E-07
1228	258618.6	4084125	2.99E-09	5.10E-08	3.46E-08	2.46E-08	1.13E-07
1229	258643.6	4084125	3.106E-09	5.30E-08	3.59E-08	2.55E-08	1.17E-07
1230	258668.6	4084125	3.227E-09	5.50E-08	3.73E-08	2.65E-08	1.22E-07
1231	258693.6	4084125	3.352E-09	5.71E-08	3.87E-08	2.75E-08	1.27E-07
1232	258718.6	4084125	3.479E-09	5.93E-08	4.02E-08	2.86E-08	1.32E-07
1233	258743.6	4084125	3.606E-09	6.15E-08	4.17E-08	2.96E-08	1.36E-07
1234	258768.6	4084125	3.743E-09	6.38E-08	4.33E-08	3.07E-08	1.42E-07
1235	258793.6	4084125	3.882E-09	6.62E-08	4.49E-08	3.19E-08	1.47E-07
1236	258818.6	4084125	3.962E-09	6.75E-08	4.58E-08	3.25E-08	1.50E-07
1237	258843.6	4084125	4E-09	6.82E-08	4.62E-08	3.29E-08	1.51E-07
1238	258868.6	4084125	4.009E-09	6.84E-08	4.63E-08	3.29E-08	1.52E-07
1239	258893.6	4084125	4.159E-09	7.09E-08	4.81E-08	3.42E-08	1.57E-07
1240	258418.6	4084150	2.289E-09	3.90E-08	2.65E-08	1.88E-08	8.66E-08
1241	258443.6	4084150	2.374E-09	4.05E-08	2.74E-08	1.95E-08	8.98E-08
1242	258468.6	4084150	2.464E-09	4.20E-08	2.85E-08	2.02E-08	9.32E-08
1243	258493.6	4084150	2.558E-09	4.36E-08	2.96E-08	2.10E-08	9.67E-08
1244	258518.6	4084150	2.657E-09	4.53E-08	3.07E-08	2.18E-08	1.01E-07
1245	258543.6	4084150	2.762E-09	4.71E-08	3.19E-08	2.27E-08	1.04E-07
1246	258568.6	4084150	2.882E-09	4.91E-08	3.33E-08	2.37E-08	1.09E-07
1247	258593.6	4084150	3.008E-09	5.13E-08	3.48E-08	2.47E-08	1.14E-07
1248	258618.6	4084150	3.136E-09	5.35E-08	3.62E-08	2.58E-08	1.19E-07
1249	258643.6	4084150	3.267E-09	5.57E-08	3.78E-08	2.68E-08	1.24E-07
1250	258668.6	4084150	3.404E-09	5.80E-08	3.93E-08	2.80E-08	1.29E-07
1251	258693.6	4084150	3.547E-09	6.05E-08	4.10E-08	2.91E-08	1.34E-07
1252	258718.6	4084150	3.694E-09	6.30E-08	4.27E-08	3.03E-08	1.40E-07
1253	258743.6	4084150	3.842E-09	6.55E-08	4.44E-08	3.16E-08	1.45E-07
1254	258768.6	4084150	4.001E-09	6.82E-08	4.62E-08	3.29E-08	1.51E-07
1255	258793.6	4084150	4.163E-09	7.10E-08	4.81E-08	3.42E-08	1.57E-07
1256	258818.6	4084150	4.259E-09	7.26E-08	4.92E-08	3.50E-08	1.61E-07
1257	258843.6	4084150	4.317E-09	7.36E-08	4.99E-08	3.55E-08	1.63E-07
1258	258868.6	4084150	4.378E-09	7.46E-08	5.06E-08	3.60E-08	1.66E-07
1259	258418.6	4084175	2.356E-09	4.02E-08	2.72E-08	1.94E-08	8.91E-08
1260	258443.6	4084175	2.447E-09	4.17E-08	2.83E-08	2.01E-08	9.25E-08
1261	258468.6	4084175	2.543E-09	4.34E-08	2.94E-08	2.09E-08	9.62E-08
1262	258493.6	4084175	2.645E-09	4.51E-08	3.06E-08	2.17E-08	1.00E-07
1263	258518.6	4084175	2.752E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07
1264	258543.6	4084175	2.874E-09	4.90E-08	3.32E-08	2.36E-08	1.09E-07
1265	258568.6	4084175	3.004E-09	5.12E-08	3.47E-08	2.47E-08	1.14E-07
1266	258593.6	4084175	3.137E-09	5.35E-08	3.63E-08	2.58E-08	1.19E-07
1267	258618.6	4084175	3.274E-09	5.58E-08	3.78E-08	2.69E-08	1.24E-07
1268	258643.6	4084175	3.419E-09	5.83E-08	3.95E-08	2.81E-08	1.29E-07
1269	258668.6	4084175	3.572E-09	6.09E-08	4.13E-08	2.93E-08	1.35E-07
1270	258693.6	4084175	3.732E-09	6.36E-08	4.31E-08	3.07E-08	1.41E-07
1271	258718.6	4084175	3.898E-09	6.65E-08	4.51E-08	3.20E-08	1.47E-07
1272	258743.6	4084175	4.078E-09	6.95E-08	4.71E-08	3.35E-08	1.54E-07
1273	258768.6	4084175	4.265E-09	7.27E-08	4.93E-08	3.50E-08	1.61E-07
1274	258793.6	4084175	4.432E-09	7.56E-08	5.12E-08	3.64E-08	1.68E-07
1275	258818.6	4084175	4.548E-09	7.75E-08	5.26E-08	3.74E-08	1.72E-07
1276	258843.6	4084175	4.625E-09	7.89E-08	5.35E-08	3.80E-08	1.75E-07
1277	258868.6	4084175	4.771E-09	8.13E-08	5.51E-08	3.92E-08	1.80E-07
1278	258418.6	4084200	2.418E-09	4.12E-08	2.79E-08	1.99E-08	9.14E-08
1279	258443.6	4084200	2.514E-09	4.29E-08	2.91E-08	2.07E-08	9.51E-08
1280	258468.6	4084200	2.616E-09	4.46E-08	3.02E-08	2.15E-08	9.90E-08
1281	258493.6	4084200	2.726E-09	4.65E-08	3.15E-08	2.24E-08	1.03E-07
1282	258518.6	4084200	2.846E-09	4.85E-08	3.29E-08	2.34E-08	1.08E-07
1283	258543.6	4084200	2.98E-09	5.08E-08	3.44E-08	2.45E-08	1.13E-07
1284	258568.6	4084200	3.114E-09	5.31E-08	3.60E-08	2.56E-08	1.18E-07
1285	258593.6	4084200	3.254E-09	5.55E-08	3.76E-08	2.67E-08	1.23E-07
1286	258618.6	4084200	3.403E-09	5.80E-08	3.93E-08	2.80E-08	1.29E-07
1287	258643.6	4084200	3.561E-09	6.07E-08	4.12E-08	2.93E-08	1.35E-07
1288	258668.6	4084200	3.728E-09	6.36E-08	4.31E-08	3.06E-08	1.41E-07
1289	258693.6	4084200	3.904E-09	6.66E-08	4.51E-08	3.21E-08	1.48E-07
1290	258718.6	4084200	4.088E-09	6.97E-08	4.73E-08	3.36E-08	1.55E-07
1291	258743.6	4084200	4.299E-09	7.33E-08	4.97E-08	3.53E-08	1.63E-07
1292	258768.6	4084200	4.513E-09	7.69E-08	5.22E-08	3.71E-08	1.71E-07
1293	258793.6	4084200	4.683E-09	7.98E-08	5.41E-08	3.85E-08	1.77E-07
1294	258818.6	4084200	4.817E-09	8.21E-08	5.57E-08	3.96E-08	1.82E-07
1295	258843.6	4084200	4.914E-09	8.38E-08	5.68E-08	4.04E-08	1.86E-07
1296	258868.6	4084200	5.148E-09	8.78E-08	5.95E-08	4.23E-08	1.95E-07
1297	258418.6	4084225	2.473E-09	4.22E-08	2.86E-08	2.03E-08	9.35E-08

2.02E-10	3.44E-09	2.33E-09	1.66E-09	7.62E-09
1.94E-10	3.30E-09	2.24E-09	1.59E-09	7.33E-09
1.87E-10	3.18E-09	2.16E-09	1.53E-09	7.06E-09
1.80E-10	3.08E-09	2.09E-09	1.48E-09	6.83E-09
1.75E-10	2.98E-09	2.02E-09	1.44E-09	6.62E-09
1.70E-10	2.90E-09	1.97E-09	1.40E-09	6.44E-09
1.66E-10	2.83E-09	1.92E-09	1.36E-09	6.28E-09
1.62E-10	2.77E-09	1.88E-09	1.33E-09	6.14E-09
1.59E-10	2.71E-09	1.83E-09	1.30E-09	6.00E-09
1.55E-10	2.64E-09	1.79E-09	1.27E-09	5.87E-09
1.51E-10	2.58E-09	1.75E-09	1.24E-09	5.73E-09
1.48E-10	2.52E-09	1.71E-09	1.21E-09	5.58E-09
1.44E-10	2.45E-09	1.66E-09	1.18E-09	5.43E-09
1.40E-10	2.38E-09	1.61E-09	1.15E-09	5.28E-09
1.36E-10	2.31E-09	1.57E-09	1.11E-09	5.13E-09
1.31E-10	2.24E-09	1.52E-09	1.08E-09	4.97E-09
1.27E-10	2.16E-09	1.47E-09	1.04E-09	4.80E-09
1.23E-10	2.09E-09	1.42E-09	1.01E-09	4.63E-09
1.18E-10	2.01E-09	1.37E-09	9.71E-10	4.47E-09
1.14E-10	1.94E-09	1.31E-09	9.34E-10	4.30E-09
1.10E-10	1.87E-09	1.27E-09	9.00E-10	4.14E-09
1.06E-10	1.80E-09	1.22E-09	8.67E-10	3.99E-09
1.02E-10	1.74E-09	1.18E-09	8.36E-10	3.85E-09
9.82E-11	1.68E-09	1.14E-09	8.07E-10	3.72E-09
9.49E-11	1.62E-09	1.10E-09	7.80E-10	3.59E-09
9.18E-11	1.56E-09	1.06E-09	7.54E-10	3.47E-09
8.90E-11	1.52E-09	1.03E-09	7.31E-10	3.37E-09
8.63E-11	1.47E-09	9.98E-10	7.09E-10	3.27E-09
8.38E-11	1.43E-09	9.69E-10	6.89E-10	3.17E-09
8.15E-11	1.39E-09	9.42E-10	6.70E-10	3.08E-09
7.94E-11	1.35E-09	9.18E-10	6.52E-10	3.00E-09
7.75E-11	1.32E-09	8.96E-10	6.36E-10	2.93E-09
2.14E-09	3.65E-08	2.48E-08	1.76E-08	8.10E-08
2.21E-09	3.77E-08	2.56E-08	1.82E-08	8.37E-08
2.29E-09	3.90E-08	2.65E-08	1.88E-08	8.66E-08
2.37E-09	4.04E-08	2.74E-08	1.95E-08	8.96E-08
2.45E-09	4.18E-08	2.83E-08	2.01E-08	9.27E-08
2.54E-09	4.32E-08	2.93E-08	2.08E-08	9.59E-08
2.63E-09	4.48E-08	3.03E-08	2.16E-08	9.93E-08
2.73E-09	4.65E-08	3.15E-08	2.24E-08	1.03E-07
2.84E-09	4.84E-08	3.28E-08	2.33E-08	1.07E-07
2.94E-09	5.01E-08	3.40E-08	2.41E-08	1.11E-07
3.04E-09	5.19E-08	3.52E-08	2.50E-08	1.15E-07
3.15E-09	5.37E-08	3.64E-08	2.59E-08	1.19E-07
3.26E-09	5.55E-08	3.76E-08	2.68E-08	1.23E-07
3.36E-09	5.74E-08	3.89E-08	2.76E-08	1.27E-07
3.48E-09	5.93E-08	4.02E-08	2.86E-08	1.32E-07
3.60E-09	6.13E-08	4.16E-08	2.95E-08	1.36E-07
3.66E-09	6.24E-08	4.23E-08	3.01E-08	1.39E-07
3.69E-09	6.29E-08	4.27E-08	3.03E-08	1.40E-07
3.69E-09	6.28E-08	4.26E-08	3.03E-08	1.39E-07
3.77E-09	6.43E-08	4.36E-08	3.10E-08	1.43E-07
2.22E-09	3.78E-08	2.56E-08	1.82E-08	8.39E-08
2.30E-09	3.91E-08	2.65E-08	1.89E-08	8.68E-08
2.38E-09	4.06E-08	2.75E-08	1.95E-08	9.00E-08
2.47E-09	4.20E-08	2.85E-08	2.03E-08	9.32E-08
2.56E-09	4.36E-08	2.95E-08	2.10E-08	9.67E-08
2.65E-09	4.52E-08	3.07E-08	2.18E-08	1.00E-07
2.75E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07
2.87E-09	4.89E-08	3.31E-08	2.36E-08	1.08E-07
2.99E-09	5.10E-08	3.46E-08	2.46E-08	1.13E-07
3.11E-09	5.30E-08	3.59E-08	2.55E-08	1.17E-07
3.23E-09	5.50E-08	3.73E-08	2.65E-08	1.22E-07
3.35E-09	5.71E-08	3.87E-08	2.75E-08	1.27E-07
3.48E-09	5.93E-08	4.02E-08	2.86E-08	1.32E-07
3.61E-09	6.15E-08	4.17E-08	2.96E-08	1.36E-07
3.74E-09	6.38E-08	4.33E-08	3.07E-08	1.42E-07
3.88E-09	6.62E-08	4.49E-08	3.19E-08	1.47E-07
3.96E-09	6.75E-08	4.58E-08	3.25E-08	1.50E-07
4.00E-09	6.82E-08	4.62E-08	3.29E-08	1.51E-07
4.01E-09	6.84E-08	4.63E-08	3.29E-08	1.52E-07
4.16E-09	7.09E-08	4.81E-08	3.42E-08	1.57E-07
2.29E-09	3.90E-08	2.65E-08	1.88E-08	8.66E-08
2.37E-09	4.05E-08	2.74E-08	1.95E-08	8.98E-08
2.46E-09	4.20E-08	2.85E-08	2.02E-08	9.32E-08
2.56E-09	4.36E-08	2.96E-08	2.10E-08	9.67E-08
2.66E-09	4.53E-08	3.07E-08	2.18E-08	1.01E-07
2.76E-09	4.71E-08	3.19E-08	2.27E-08	1.04E-07
2.88E-09	4.91E-08	3.33E-08	2.37E-08	1.09E-07
3.01E-09	5.13E-08	3.48E-08	2.47E-08	1.14E-07
3.14E-09	5.35E-08	3.62E-08	2.58E-08	1.19E-07
3.27E-09	5.57E-08	3.78E-08	2.68E-08	1.24E-07
3.40E-09	5.80E-08	3.93E-08	2.80E-08	1.29E-07
3.55E-09	6.05E-08	4.10E-08	2.91E-08	1.34E-07
3.69E-09	6.30E-08	4.27E-08	3.03E-08	1.40E-07
3.84E-09	6.55E-08	4.44E-08	3.16E-08	1.45E-07
4.00E-09	6.82E-08	4.62E-08	3.29E-08	1.51E-07
4.16E-09	7.10E-08	4.81E-08	3.42E-08	1.57E-07
4.26E-09	7.26E-08	4.92E-08	3.50E-08	1.61E-07
4.32E-09	7.36E-08	4.99E-08	3.55E-08	1.63E-07
4.38E-09	7.46E-08	5.06E-08	3.60E-08	1.66E-07
2.36E-09	4.02E-08	2.72E-08	1.94E-08	8.91E-08
2.45E-09	4.17E-08	2.83E-08	2.01E-08	9.25E-08
2.54E-09	4.34E-08	2.94E-08	2.09E-08	9.62E-08
2.64E-09	4.51E-08	3.06E-08	2.17E-08	1.00E-07
2.75E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07
2.87E-09	4.90E-08	3.32E-08	2.36E-08	1.09E-07
3.00E-09	5.12E-08	3.47E-08	2.47E-08	1.14E-07
3.14E-09	5.35E-08	3.63E-08	2.58E-08	1.19E-07
3.27E-09	5.58E-08	3.78E-08	2.69E-08	1.24E-07
3.42E-09	5.83E-08	3.95E-08	2.81E-08	1.29E-07
3.57E-09	6.09E-08	4.13E-08	2.93E-08	1.35E-07
3.73E-09	6.36E-08	4.31E-08	3.07E-08	1.41E-07
3.90E-09	6.65E-08	4.51E-08	3.20E-08	1.47E-07
4.08E-09	6.95E-08	4.71E-08	3.35E-08	1.54E-07
4.26E-09	7.27E-08	4.93E-08	3.50E-08	1.61E-07
4.43E-09	7.56E-08	5.12E-08	3.64E-08	1.68E-07
4.55E-09	7.75E-08	5.26E-08	3.74E-08	1.72E-07
4.63E-09	7.89E-08	5.35E-08	3.80E-08	1.75E-07
4.77E-09	8.13E-08	5.51E-08	3.92E-08	1.80E-07
2.42E-09	4.12E-08	2.79E-08	1.99E-08	9.14E-08
2.51E-09	4.29E-08	2.91E-08	2.07E-08	9.51E-08
2.62E-09	4.46E-08	3.02E-08	2.15E-08	9.90E-08
2.73E-09	4.65E-08	3.15E-08	2.24E-08	1.03E-07
2.85E-09	4.85E-08	3.29E-08	2.34E-08	1.08E-07
2.98E-09	5.08E-08	3.44E-08	2.45E-08	1.13E-07
3.11E-09	5.31E-08	3.60E-08	2.56E-08	1.18E-07
3.25E-09	5.55E-08	3.76E-08	2.67E-08	1.23E-07
3.40E-09	5.80E-08	3.93E-08	2.80E-08	1.29E-07
3.56E-09	6.07E-08	4.12E-08	2.93E-08	1.35E-07
3.73E-09	6.36E-08	4.31E-08	3.06E-08	1.41E-07
3.90E-09	6.66E-08	4.51E-08	3.21E-08	1.48E-07
4.09E-09	6.97E-08	4.73E-08	3.36E-08	1.55E-07
4.30E-09	7.33E-08	4.97E-08	3.53E-08	1.63E-07
4.51E-09	7.69E-08	5.22E-08	3.71E-08	1.71E-07
4.68E-09	7.98E-08	5.41E-08	3.85E-08	1.77E-07
4.82E-09	8.21E-08	5.57E-08	3.96E-08	1.82E-07
4.91E-09	8.38E-08	5.68E-08	4.04E-08	1.86E-07
5.15E-09	8.78E-08	5.95E-08	4.23E-08	1.95E-07
2.47E-09	4.22E-08	2.86E-08	2.03E-08	9.35E-08

3.06E-11	6.00E-10	3.82E-10	2.68E-10	1.28E-09
2.95E-11	5.77E-10	3.68E-10	2.58E-10	1.23E-09
2.84E-11	5.56E-10	3.54E-10	2.48E-10	1.19E-09
2.74E-11	5.37E-10	3.42E-10	2.40E-10	1.15E-09
2.66E-11	5.21E-10	3.32E-10	2.33E-10	1.11E-09
2.59E-11	5.07E-10	3.23E-10	2.26E-10	1.08E-09
2.52E-11	4.94E-10	3.15E-10	2.21E-10	1.06E-09
2.47E-11	4.83E-10	3.08E-10	2.16E-10	1.03E-09
2.41E-11	4.72E-10	3.01E-10	2.11E-10	1.01E-09
2.36E-11	4.62E-10	2.94E-10	2.06E-10	9.86E-10
2.30E-11	4.51E-10	2.87E-10	2.01E-10	9.63E-10
2.24E-11	4.40E-10	2.80E-10	1.96E-10	9.39E-10
2.18E-11	4.28E-10	2.73E-10	1.91E-10	9.13E-10
2.12E-11	4.15E-10	2.65E-10	1.86E-10	8.87E-10
2.06E-11	4.04E-10	2.58E-10	1.81E-10	8.63E-10
2.00E-11	3.91E-10	2.49E-10	1.75E-10	8.35E-10
1.93E-11	3.78E-10	2.41E-10	1.69E-10	8.07E-10
1.86E-11	3.65E-10	2.32E-10	1.63E-10	7.79E-10
1.80E-11	3.52E-10	2.24E-10	1.57E-10	7.51E-10
1.73E-11	3.39E-10	2.16E-10	1.51E-10	7.23E-10
1.67E-11	3.26E-10	2.08E-10	1.46E-10	6.96E-10
1.61E-11	3.14E-10	2.00E-10	1.40E-10	6.71E-10
1.55E-11	3.03E-10	1.93E-10	1.35E-10	6.47E-10
1.49E-11	2.93E-10	1.86E-10	1.31E-10	6.25E-10
1.44E-11	2.83E-10	1.80E-10	1.26E-10	6.03E-10
1.40E-11	2.73E-10	1.74E-10	1.22E-10	5.83E-10
1.35E-11	2.65E-10	1.69E-10	1.18E-10	5.66E-10
1.31E-11	2.57E-10	1.64E-10	1.15E-10

1298	258443.6	4084225	2.575E-09	4.39E-08	2.98E-08	2.12E-08	9.74E-08	2.58E-09	4.39E-08	2.98E-08	2.12E-08	9.74E-08	3.92E-10	7.67E-09	4.89E-09	3.42E-09	1.64E-08	2.13E-10	4.82E-09	2.33E-09	1.69E-09	9.06E-09
1299	258468.6	4084225	2.684E-09	4.58E-08	3.10E-08	2.21E-08	1.02E-07	2.68E-09	4.58E-08	3.10E-08	2.21E-08	1.02E-07	4.08E-10	7.99E-09	5.09E-09	3.57E-09	1.71E-08	2.22E-10	5.02E-09	2.43E-09	1.76E-09	9.44E-09
1300	258493.6	4084225	2.804E-09	4.78E-08	3.24E-08	2.30E-08	1.06E-07	2.80E-09	4.78E-08	3.24E-08	2.30E-08	1.06E-07	4.26E-10	8.35E-09	5.32E-09	3.73E-09	1.78E-08	2.32E-10	5.25E-09	2.54E-09	1.84E-09	9.86E-09
1301	258518.6	4084225	2.939E-09	5.01E-08	3.40E-08	2.41E-08	1.11E-07	2.94E-09	5.01E-08	3.40E-08	2.41E-08	1.11E-07	4.47E-10	8.75E-09	5.58E-09	3.91E-09	1.87E-08	2.43E-10	5.50E-09	2.66E-09	1.93E-09	1.03E-08
1302	258543.6	4084225	3.071E-09	5.24E-08	3.55E-08	2.52E-08	1.16E-07	3.07E-09	5.24E-08	3.55E-08	2.52E-08	1.16E-07	4.67E-10	9.15E-09	5.83E-09	4.08E-09	1.95E-08	2.54E-10	5.75E-09	2.78E-09	2.02E-09	1.08E-08
1303	258568.6	4084225	3.212E-09	5.48E-08	3.71E-08	2.64E-08	1.21E-07	3.21E-09	5.48E-08	3.71E-08	2.64E-08	1.21E-07	4.88E-10	9.57E-09	6.09E-09	4.27E-09	2.04E-08	2.65E-10	6.01E-09	2.91E-09	2.11E-09	1.13E-08
1304	258593.6	4084225	3.362E-09	5.73E-08	3.89E-08	2.76E-08	1.27E-07	3.36E-09	5.73E-08	3.89E-08	2.76E-08	1.27E-07	5.11E-10	1.00E-08	6.38E-09	4.47E-09	2.14E-08	2.78E-10	6.29E-09	3.04E-09	2.21E-09	1.18E-08
1305	258618.6	4084225	3.522E-09	6.01E-08	4.07E-08	2.89E-08	1.33E-07	3.52E-09	6.01E-08	4.07E-08	2.89E-08	1.33E-07	5.36E-10	1.05E-08	6.68E-09	4.68E-09	2.24E-08	2.91E-10	6.59E-09	3.19E-09	2.32E-09	1.24E-08
1306	258643.6	4084225	3.692E-09	6.29E-08	4.27E-08	3.03E-08	1.40E-07	3.69E-09	6.29E-08	4.27E-08	3.03E-08	1.40E-07	5.61E-10	1.10E-08	7.01E-09	4.91E-09	2.35E-08	3.05E-10	6.91E-09	3.34E-09	2.43E-09	1.30E-08
1307	258668.6	4084225	3.872E-09	6.60E-08	4.48E-08	3.18E-08	1.46E-07	3.87E-09	6.60E-08	4.48E-08	3.18E-08	1.46E-07	5.89E-10	1.15E-08	7.35E-09	5.15E-09	2.46E-08	3.20E-10	7.25E-09	3.50E-09	2.55E-09	1.36E-08
1308	258693.6	4084225	4.062E-09	6.93E-08	4.70E-08	3.34E-08	1.54E-07	4.06E-09	6.93E-08	4.70E-08	3.34E-08	1.54E-07	6.18E-10	1.21E-08	7.71E-09	5.40E-09	2.58E-08	3.35E-10	7.60E-09	3.68E-09	2.67E-09	1.43E-08
1309	258718.6	4084225	4.265E-09	7.27E-08	4.93E-08	3.50E-08	1.61E-07	4.27E-09	7.27E-08	4.93E-08	3.50E-08	1.61E-07	6.49E-10	1.27E-08	8.09E-09	5.67E-09	2.71E-08	3.52E-10	7.98E-09	3.86E-09	2.80E-09	1.50E-08
1310	258743.6	4084225	4.494E-09	7.66E-08	5.19E-08	3.69E-08	1.70E-07	4.49E-09	7.66E-08	5.19E-08	3.69E-08	1.70E-07	6.83E-10	1.34E-08	8.53E-09	5.98E-09	2.86E-08	3.71E-10	8.41E-09	4.07E-09	2.95E-09	1.58E-08
1311	258768.6	4084225	4.72E-09	8.05E-08	5.46E-08	3.88E-08	1.79E-07	4.72E-09	8.05E-08	5.46E-08	3.88E-08	1.79E-07	7.18E-10	1.41E-08	8.96E-09	6.28E-09	3.00E-08	3.90E-10	8.83E-09	4.27E-09	3.10E-09	1.66E-08
1312	258793.6	4084225	4.908E-09	8.37E-08	5.67E-08	4.03E-08	1.86E-07	4.91E-09	8.37E-08	5.67E-08	4.03E-08	1.86E-07	7.46E-10	1.46E-08	9.31E-09	6.53E-09	3.12E-08	4.05E-10	9.18E-09	4.44E-09	3.23E-09	1.73E-08
1313	258818.6	4084225	5.059E-09	8.62E-08	5.85E-08	4.16E-08	1.91E-07	5.06E-09	8.62E-08	5.85E-08	4.16E-08	1.91E-07	7.69E-10	1.51E-08	9.60E-09	6.73E-09	3.22E-08	4.18E-10	9.47E-09	4.58E-09	3.33E-09	1.78E-08
1314	258843.6	4084225	5.174E-09	8.82E-08	5.98E-08	4.25E-08	1.96E-07	5.17E-09	8.82E-08	5.98E-08	4.25E-08	1.96E-07	7.87E-10	1.54E-08	9.82E-09	6.88E-09	3.29E-08	4.27E-10	9.68E-09	4.68E-09	3.40E-09	1.82E-08
1315	258418.6	4084250	2.523E-09	4.30E-08	2.92E-08	2.07E-08	9.54E-08	2.52E-09	4.30E-08	2.92E-08	2.07E-08	9.54E-08	3.84E-10	7.51E-09	4.79E-09	3.36E-09	1.60E-08	2.08E-10	4.72E-09	2.28E-09	1.66E-09	8.87E-09
1316	258443.6	4084250	2.63E-09	4.48E-08	3.04E-08	2.16E-08	9.95E-08	2.63E-09	4.48E-08	3.04E-08	2.16E-08	9.95E-08	4.00E-10	7.83E-09	4.99E-09	3.50E-09	1.67E-08	2.17E-10	4.92E-09	2.38E-09	1.73E-09	9.25E-09
1317	258468.6	4084250	2.749E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07	2.75E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07	4.18E-10	8.19E-09	5.22E-09	3.66E-09	1.75E-08	2.27E-10	5.14E-09	2.49E-09	1.81E-09	9.67E-09
1318	258493.6	4084250	2.882E-09	4.91E-08	3.33E-08	2.37E-08	1.09E-07	2.88E-09	4.91E-08	3.33E-08	2.37E-08	1.09E-07	4.38E-10	8.58E-09	5.47E-09	3.83E-09	1.83E-08	2.38E-10	5.39E-09	2.61E-09	1.89E-09	1.01E-08
1319	258518.6	4084250	3.013E-09	5.14E-08	3.48E-08	2.47E-08	1.14E-07	3.01E-09	5.14E-08	3.48E-08	2.47E-08	1.14E-07	4.58E-10	8.97E-09	5.72E-09	4.01E-09	1.92E-08	2.49E-10	5.64E-09	2.73E-09	1.98E-09	1.06E-08
1320	258543.6	4084250	3.153E-09	5.37E-08	3.64E-08	2.59E-08	1.19E-07	3.15E-09	5.37E-08	3.64E-08	2.59E-08	1.19E-07	4.79E-10	9.39E-09	5.98E-09	4.19E-09	2.00E-08	2.60E-10	5.90E-09	2.85E-09	2.07E-09	1.11E-08
1321	258568.6	4084250	3.302E-09	5.63E-08	3.82E-08	2.71E-08	1.25E-07	3.30E-09	5.63E-08	3.82E-08	2.71E-08	1.25E-07	5.02E-10	9.83E-09	6.26E-09	4.39E-09	2.10E-08	2.73E-10	6.18E-09	2.99E-09	2.17E-09	1.16E-08
1322	258593.6	4084250	3.461E-09	5.90E-08	4.00E-08	2.84E-08	1.31E-07	3.46E-09	5.90E-08	4.00E-08	2.84E-08	1.31E-07	5.26E-10	1.03E-08	6.57E-09	4.60E-09	2.20E-08	2.86E-10	6.48E-09	3.13E-09	2.28E-09	1.22E-08
1323	258618.6	4084250	3.631E-09	6.19E-08	4.20E-08	2.98E-08	1.37E-07	3.63E-09	6.19E-08	4.20E-08	2.98E-08	1.37E-07	5.52E-10	1.08E-08	6.89E-09	4.83E-09	2.31E-08	3.00E-10	6.79E-09	3.29E-09	2.39E-09	1.28E-08
1324	258643.6	4084250	3.811E-09	6.50E-08	4.40E-08	3.13E-08	1.44E-07	3.81E-09	6.50E-08	4.40E-08	3.13E-08	1.44E-07	5.80E-10	1.13E-08	7.23E-09	5.07E-09	2.42E-08	3.15E-10	7.13E-09	3.45E-09	2.51E-09	1.34E-08
1325	258668.6	4084250	4.003E-09	6.82E-08	4.63E-08	3.29E-08	1.51E-07	4.00E-09	6.82E-08	4.63E-08	3.29E-08	1.51E-07	6.09E-10	1.19E-08	7.59E-09	5.32E-09	2.54E-08	3.31E-10	7.49E-09	3.62E-09	2.63E-09	1.41E-08
1326	258693.6	4084250	4.205E-09	7.17E-08	4.86E-08	3.45E-08	1.59E-07	4.20E-09	7.17E-08	4.86E-08	3.45E-08	1.59E-07	6.39E-10	1.25E-08	7.98E-09	5.59E-09	2.67E-08	3.47E-10	7.87E-09	3.81E-09	2.76E-09	1.48E-08
1327	258718.6	4084250	4.444E-09	7.58E-08	5.14E-08	3.65E-08	1.68E-07	4.44E-09	7.58E-08	5.14E-08	3.65E-08	1.68E-07	6.76E-10	1.32E-08	8.43E-09	5.91E-09	2.83E-08	3.67E-10	8.32E-09	4.02E-09	2.92E-09	1.56E-08
1328	258743.6	4084250	4.681E-09	7.98E-08	5.41E-08	3.84E-08	1.77E-07	4.68E-09	7.98E-08	5.41E-08	3.84E-08	1.77E-07	7.12E-10	1.39E-08	8.88E-09	6.22E-09	2.98E-08	3.87E-10	8.76E-09	4.24E-09	3.08E-09	1.65E-08
1329	258768.6	4084250	4.9E-09	8.35E-08	5.66E-08	4.03E-08	1.85E-07	4.90E-09	8.35E-08	5.66E-08	4.03E-08	1.85E-07	7.45E-10	1.46E-08	9.30E-09	6.52E-09	3.12E-08	4.05E-10	9.17E-09	4.43E-09	3.22E-09	1.72E-08
1330	258793.6	4084250	5.102E-09	8.70E-08	5.90E-08	4.19E-08	1.93E-07	5.10E-09	8.70E-08	5.90E-08	4.19E-08	1.93E-07	7.76E-10	1.52E-08	9.68E-09	6.79E-09	3.24E-08	4.21E-10	9.55E-09	4.62E-09	3.35E-09	1.79E-08
1331	258818.6	4084250	5.269E-09	8.98E-08	6.09E-08	4.33E-08	1.99E-07	5.27E-09	8.98E-08	6.09E-08	4.33E-08	1.99E-07	8.01E-10	1.57E-08	1.00E-08	7.01E-09	3.35E-08	4.35E-10	9.86E-09	4.77E-09	3.46E-09	1.85E-08
1332	258843.6	4084250	5.398E-09	9.20E-08	6.24E-08	4.43E-08	2.04E-07	5.40E-09	9.20E-08	6.24E-08	4.43E-08	2.04E-07	8.21E-10	1.61E-08	1.02E-08	7.18E-09	3.43E-08	4.46E-10	1.01E-08	4.89E-09	3.55E-09	1.90E-08
1333	258418.6	4084275	2.565E-09	4.37E-08	2.97E-08	2.11E-08	9.70E-08	2.57E-09	4.37E-08	2.97E-08	2.11E-08	9.70E-08	3.90E-10	7.64E-09	4.87E-09	3.41E-09	1.63E-08	2.12E-10	4.80E-09	2.32E-09	1.69E-09	9.02E-09
1334	258443.6	4084275	2.677E-09	4.56E-08	3.09E-08	2.20E-08	1.01E-07	2.68E-09	4.56E-08	3.09E-08	2.20E-08	1.01E-07	4.07E-10	7.97E-09	5.08E-09	3.56E-09	1.70E-08	2.21E-10	5.01E-09	2.42E-09	1.76E-09	9.41E-09
1335	258468.6	4084275	2.802E-09	4.78E-08	3.24E-08	2.30E-08	1.06E-07	2.80E-09	4.78E-08	3.24E-08	2.30E-08	1.06E-07	4.26E-10	8.34E-09	5.32E-09	3.73E-09	1.78E-08	2.31E-10	5.24E-09	2.54E-09	1.84E-09	9.85E-09
1336	258493.6	4084275	2.941E-09	5.01E-08	3.40E-08	2.42E-08	1.11E-07	2.94E-09	5.01E-08	3.40E-08	2.42E-08	1.11E-07	4.47E-10	8.76E-09	5.58E-09	3.91E-09	1.87E-08	2.43E-10	5.50E-09	2.66E-09	1.93E-09	1.03E-08
1337	258518.6	4084275	3.078E-09	5.25E-08	3.56E-08	2.53E-08	1.16E-07	3.08E-09	5.25E-08	3.56E-08	2.53E-08	1.16E-07	4.68E-10	9.16E-09	5.84E-09	4.09E-09	1.96E-08	2.54E-10	5.76E-09	2.79E-09	2.02E-09	1.08E-08
1338	258543.6	4084275	3.224E-09	5.50E-08	3.73E-08	2.65E-08	1.22E-07	3.22E-09	5.50E-08	3.73E-08	2.65E-08	1.22E-07	4.90E-10	9.60E-09	6.12E-09	4.29E-09	2.05E-08	2.66E-10	6.03E-09	2.92E-09	2.12E-09	1.13E-08
1339	258568.6	4084275	3.381E-09	5.76E-08	3.91E-08	2.78E-08	1.28E-07	3.38E-09	5.76E-08	3.91E-08	2.78E-08	1.28E-07	5.14E-10	1.01E-08	6.41E-09	4.50E-09	2.15E-08	2.79E-10	6.33E-09	3.06E-09	2.22E-09	1.19E-08
1340	258593.6	4084275	3.548E-09	6.05E-08	4.10E-08	2.91E-08	1.34E-07	3.55E-09	6.05E-08	4.10E-08	2.91E-08	1.34E-07	5.39E-10	1.06E-08	6.73E-09	4.72E-09	2.26E-08	2.93E-10	6.64E-09	3.21E-09	2.33E-09	1.25E-08
1341	258618.6	4084275	3.726E-09	6.35E-08	4.31E-08	3.06E-08	1.41E-07	3.73E-09	6.35E-08	4.31E-08	3.06E-08	1.41E-07	5.67E-10	1.11E-08	7.07E-09	4.96E-09	2.37E-08	3.08E-10	6.97E-09	3.37E-09	2.45E-09	1.31E-08
1342	258643.6	4084275	3.916E-09	6.68E-08	4.53E-08	3.22E-08	1.48E-07	3.92E-09	6.68E-08	4.53E-08	3.22E-08	1.48E-07	5.95E-10	1.17E-08	7.43E-09	5.21E-09	2.49E-08	3.23E-10	7.33E-09	3.54E-09	2.57E-09	1.38E-08
1343	258668.6	4084275	4.117E-09	7.02E-08	4.76E-08	3.38E-08	1.56E-07	4.12E-09	7.02E-08	4.76E-08	3.38E-08	1.56E-07	6.26E-10	1.23E-08	7.81E-09	5.48E-09	2.62E-08	3.40E-10	7.71E-09	3.73E-09	2.71E-09	1.45E-08
1344	258693.6	4084275	4.329E-09	7.38E-08	5.00E-08	3.56E-08	1.64E-07	4.33E-09	7.38E-08	5.00E-08	3.56E-08	1.64E-07	6.58E-10	1.29E-08	8.21E-09	5.76E-09	2.75E-08	3.58E-10	8.10E-09	3.92E-09	2.85E-09	1.52E-08
1345	258718.6	4084275	4.579E-09	7.81E-08	5.29E-08	3.76E-08	1.73E-07	4.58E-09	7.81E-08	5.29E-08	3.76E-08	1.73E-07	6.96E-10	1.36E-08	8.69E-09	6.09E-09	2.91E-08	3.78E-10	8.57E-09	4.14E-09	3.01E-09	1.61E-08
1346	258743.6	4084275	4.824E-09	8.22E-08	5.58E-08	3.96E-08	1.82E-07	4.82E-09	8.22E-08	5.58E-08	3.96E-08	1.82E-07	7.34E-10	1.44E-08	9.15E-09	6.42E-09	3.07E-08	3.98E-10	9.03E-09	4.37E-09	3.17E-09	1.70E-08
1347	258768.6	4084275	5.052E-09	8.61E-08	5.84E-08	4.15E-08	1.91E-07	5.05E-09	8.61E-08	5.84E-08	4.15E-08	1.91E-07	7.68E-10	1.50E-08	9.59E-09	6.72E-09	3.21E-08	4.17E-10	9.46E-09	4.57E-09	3.32E-09	1.78E-08
1348	258793.6	4084275	5.263E-09	8.97E-08	6.08E-08	4.32E-08	1.99E-07	5.26E-09	8.97E-08	6.08E-08	4.32E-08	1.99E-07	8.00E-10	1.57E-08	9.99E-09	7.00E-09	3.35E-08	4.35E-10	9.85E-09	4.76E-09	3.46E-09	1.85E-08
1349	258818.6	4084275	5.438E-09	9.27E-08	6.29E-08	4.47E-08	2.06E-07	5.44E-09	9.27E-08	6.29E-08	4.47E-08	2.06E-07	8.27E-10	1.62E-08	1.03E-08	7.23E-09	3.46E-08	4.49E-10	1.02E-08	4.92E-09	3.58E-09	1.91E-08
1350	258843.6	4084275	5.574E-09	9.50E-08	6.44E-08	4.58E-08	2.11E-07	5.57E-09	9.50E-08	6.44E-08	4.58E-08	2.11E-07	8.48E-10	1.66E-08	1.06E-08	7.41E-09	3.54E-08	4.60E-10	1.04E-08	5.04E-09	3.66E-09	1.96E-08
1351	258418.6	4084300	2.601E-09	4.43E-08	3.01E-08	2.14E-08	9.84E-08	2.60E-09	4.43E-08	3.01E-08	2.14E-08	9.84E-08	3.95E-10	7.74E-09	4.93E-09	3.46E-09	1.65E-08	2.15E-10	4.87E-09	2.35E-09	1.71E-09	9.15E-09
1352	258443.6	4084300	2.722E-09	4.64E-08	3.15E-08	2.24E-08	1.03E-07	2.72E-09	4.64E-08	3.15E-08	2.24E-08	1.03E-07	4.14E-10	8.11E-09	5.16E-09	3.62E-09	1.73E-08	2.25E-10	5.09E-09	2.46E-09	1.79E-09	9.57E-09
1353	258468.6	4084300	2.853E-09	4.86E-08	3.30E-08	2.34E-08	1.08E-07	2.85E-09	4.86E-08	3.30E-08	2.34E-08	1.08E-07	4.34E-10	8.50E-09	5.41E-09	3.79E-09	1.81E-08	2.36E-10	5.34E-09	2.58E-09	1.88E-09	1.00E-08
1354	258493.6	4084300	2.99E-09	5.10E-08	3.46E-08	2.46E-08	1.13E-07	2.99E-09	5.10E-08	3.46E-08	2.46E-08	1.13E-07	4.55E-10	8.90E-09	5.67E-09	3.98E-09	1.90E-08	2.47E-10	5.60E-09	2.71E-09	1.97E-09	1.05E-08
1355	258518.6	4084300	3.133E-09	5.34E-08	3.62E-08	2.57E-08	1.18E-07	3.13E-09	5.34E-08	3.62E-08	2.57E-08	1.18E-07	4.76E-10	9.33E-09	5.94E-09	4.17E-09	1.99E-08	2.59E-10	5.86E-09	2.83E-09	2.06E-09	1.10E-08
1356	258543.6	4084300	3.285E-09	5.60E-08	3.80E-08	2.70E-08	1.24E-07	3.29E-09	5.60E-08	3.80E-08	2.70E-08	1.24E-07	5.00E-10	9.78E-09	6.23E-09	4.37E-09	2.09E-08	2.71E-10	6.15E-09	2.97E-09	2.16E-09	1.16E-08
1357	258568.6	4084300	3.448E-09	5.88E-08	3.99E-08	2.83E-08	1.30E-07	3.45E-09	5.88E-08	3.99E-08	2.83E-08	1.30E-07	5.24E-10	1.03E-08	6.54E-09	4.59E-09	2.19E-08	2.85E-10	6.45E-09	3.12E-09	2.27E-09	1.21E-08
1358	258593.6	4084300	3.622E-09	6.18E-08	4.19E-08	2.98E-08	1.37E-07	3.62E-09	6.18E-08	4.19E-08	2.98E-08	1.37E-07	5.51E-10	1.08E-08	6.87E-09	4.82E-09	2.30E-08	2.99E-10	6.78E-09	3.28E-09	2.38E-09	1.27E-08
1359	258618.6	4084300	3.808E-09	6.49E-08	4.40E-08	3.13E-08	1.44E-07	3.81E-09	6.49E-08	4.40E-08	3.13E-08	1.44E-07	5.79E-10	1.13E-08	7.23E-09	5.06E-09	2.42E-08	3.14E-10	7.13E-09	3.45E-09	2.50E-09	1.34E-08
1360	258643.6	4084300	4.006E-09	6.83E-08	4.63E-08	3.29E-08	1.51E-07	4.01E-09	6.83E-08	4.63E-08	3.29E-08	1.51E-07	6.09E-10	1.19E-08	7.60E-09	5.33E-09	2.55E-08	3.31E-10	7.50E-09	3.62E-09	2.63E-09	1.41E-08
1361	258668.6	4084300	4.214E-09	7.19E-08	4.87E-08	3.46E-08	1.59E-07	4.21E-09	7.19E-08	4.87E-08	3.46E-08	1.59E-07	6.41E-10	1.25E-08	8.00E-09	5.60E-09	2.68E-08	3.48E-10	7.89E-09	3.81E-09	2.77E-09	1.48E-08
1362	258693.6	4084300	4.457E-09	7.60E-08	5.15E-08	3.66E-08	1.69E-07	4.46E-09	7.60E-08	5.15E-08	3.66E-08	1.69E-07	6.78E-10	1.33E-08	8.46E-09	5.93E-09	2.83E-08	3.68E-10	8.34E-09	4.03E-09	2.93E-09	1.57E-08
1363	258718.6	4084300	4.702E-09	8.02E-08	5.43E-08	3.86E-08	1.78E-07	4.70E-09	8.02E-08	5.43E-08	3.86E-08	1.78E-07	7.15E-10	1.40E-08	8.92E-09	6.25E-09	2.99E-08	3.88E-10	8.80E-09	4.26E-09	3.09E-09	1.65E-08
1364	258743.6	4084300	4.943E-09	8.43E-08	5.71E-08	4.06E-08	1.87E-07	4.94E-09	8.43E-08	5.71E-08	4.06E-08	1.87E-07	7.52E-10	1.47E-08	9.38E-09	6.57E-09	3.14E-08	4.08E-10	9.25E-09	4.47E-09	3.25E-09	1.74E-08
1365	258768.6	4084300	5.176E-09	8.82E-08	5.98E-08	4.25E-08	1.96E-07	5.18E-09	8.82E-08	5.98E-08	4.25E-08	1.96E-07	7.87E-10	1.54E-08	9.82E-09	6.88E-09	3.29E-08	4.27E-10	9.69E-09	4.68E-09	3.40E-09	1.82E-08
1366	258793.6	4084300	5.398E-09	9.20E-08	6.24E-08	4.43E-08	2.04E-07	5.40E-09	9.20E-08	6.24E-08	4.43E-08	2.04E-07	8.21E-10	1.61E-08	1.02E-08	7.18E-09	3.43E-08	4.46E-10	1.01E-08	4.89E-09	3.55E-09	1.90E-08
1367	258818.6	4084300	5.614E-09	9.57E-08	6.49E-08	4.61E-08	2.12E-07	5.61E-09	9.57E-08	6.49E-08	4.61E-08	2.12E-07	8.54E-10	1.67E-08	1.07E-08	7.47E-09	3.57E-08	4.64E-10	1.05E-08	5.08E-09	3.69E-09	1.97E-08
1368	258843.6	4084300	5.883E-09	1.00E-07	6.80E-08	4.83E-08	2.22E-07	5.88E-09	1.00E-07	6.80E-08	4.83E-08	2.22E-07	8.95E-10	1.75E-08	1.12E-08	7.82E-09	3.74E-08	4.86E-10	1.10E-08	5.32E-09	3.87E-09	2.07E-08
1369	258418.6	4084325	2.628E-09	4.48E-08	3.04E-08	2.16E-08	9.94E-08	2.63E-09	4.48E-08	3.04E-08	2.16E-08	9.94E-08	4.00E-10	7.83E-09	4.99E-09	3.50E-09	1.67E-08	2.17E-10	4.92E-09	2.38E-09	1.73E-09	9.24E-09
1370	258443.6	4084325	2.755E-09	4.70E-08	3.18E-08	2.26E-08	1.04E-07	2.76E-09	4.70E-08	3.18E-08	2.26E-08	1.04E-07	4.19E-10	8.20E-09	5.23E-09	3.66E-09	1.75E-08	2.28E-10	5.16E-09	2.49E-09	1.81E-09	9.69E-09
1371	258468.6	4084325	2.892E-09	4.93E-08	3.34E-08	2.38E-08	1.09E-07	2.89E-09	4.93E-08	3.34E-08	2.38E-08	1.09E-07	4.40E-10	8.61E-09	5.49E-09	3.85E-09	1.84E-08	2.39E-10	5.41E-09	2.62E-09	1.90E-09	1.02E-08
1372	258493.6	4084325	3.029E-09	5.16E-08	3.50E-08	2.49E-08	1.15E-07	3.03E-09	5.16E-08	3.50E-08	2.49E-08	1.15E-07	4.61E-10	9.02E-09	5.75E-09	4.03E-09	1.93E-08	2.50E-10	5.67E-09	2.74E-09	1.99E-09	1.07E-08
1373	258518.6	4084325	3.176E-09	5.42E-08	3.67E-08	2.61E-08	1.20E-07	3.18E-09	5.42E-08	3.67E-08	2.61E-08	1.20E-07	4.83E-10	9.46E-09	6.03E-09	4.22E-09	2.02E-08	2.62E-10	5.94E-09	2.87E-09	2.09E-09	1.12E-08
1374	258543.6	4084325	3.334E-09	5.68E-08	3.85E-08	2.74E-08	1.26E-07	3.33E-09	5.68E-08	3.85E-08	2.74E-08	1.26E-07	5.07E-10	9.93E-09	6.33E-09	4.43E-09	2.12E-08	2.75E-10	6.24E-09	3.02E-09	2.19E-09	1.17E-08
1375	258568.6	4084325	3.502E-09	5.97E-08	4.05E-08	2.88E-08	1.32E-07	3.50E-09	5.97E-08	4.05E-08	2.88E-08	1.32E-07	5.33E-10	1.04E-08	6.65E-09	4.66E-09	2.23E-08	2.89E-10	6.55E-09	3.17E-09	2.30E-09	1.23E-08
1376	258593.6	4084325	3.682E-09	6.28E-08	4.26E-08	3.02E-08	1.39E-07	3.68E-09	6.28E-08	4.26E-08	3.02E-08	1.39E-07	5.60E-10	1.10E-08	6.99E-09	4.90E-09	2.34E-08	3.04E-10	6.89E-09	3.33E-09	2.42E-09	1.29E-08
1377	258618.6	4084325	3.878E-09	6.61E-08	4.48E-08	3.

1428	258543.6	4084400	3.396E-09	5.79E-08	3.93E-08	2.79E-08	1.28E-07	3.40E-09	5.79E-08	3.93E-08	2.79E-08	1.28E-07	5.16E-10	1.01E-08	6.44E-09	4.52E-09	2.16E-08	2.80E-10	6.36E-09	3.07E-09	2.23E-09	1.19E-08
1429	258568.6	4084400	3.572E-09	6.09E-08	4.13E-08	2.93E-08	1.35E-07	3.57E-09	6.09E-08	4.13E-08	2.93E-08	1.35E-07	5.43E-10	1.06E-08	6.78E-09	4.75E-09	2.27E-08	2.95E-10	6.69E-09	3.23E-09	2.35E-09	1.26E-08
1430	258593.6	4084400	3.773E-09	6.43E-08	4.36E-08	3.10E-08	1.43E-07	3.77E-09	6.43E-08	4.36E-08	3.10E-08	1.43E-07	5.74E-10	1.12E-08	7.16E-09	5.02E-09	2.40E-08	3.12E-10	7.06E-09	3.41E-09	2.48E-09	1.33E-08
1431	258618.6	4084400	3.989E-09	6.80E-08	4.61E-08	3.28E-08	1.51E-07	3.99E-09	6.80E-08	4.61E-08	3.28E-08	1.51E-07	6.06E-10	1.19E-08	7.57E-09	5.30E-09	2.54E-08	3.29E-10	7.46E-09	3.61E-09	2.62E-09	1.40E-08
1432	258643.6	4084400	4.203E-09	7.17E-08	4.86E-08	3.45E-08	1.59E-07	4.20E-09	7.17E-08	4.86E-08	3.45E-08	1.59E-07	6.39E-10	1.25E-08	7.98E-09	5.59E-09	2.67E-08	3.47E-10	7.87E-09	3.80E-09	2.76E-09	1.48E-08
1433	258668.6	4084400	4.43E-09	7.55E-08	5.12E-08	3.64E-08	1.68E-07	4.43E-09	7.55E-08	5.12E-08	3.64E-08	1.68E-07	6.74E-10	1.32E-08	8.41E-09	5.89E-09	2.82E-08	3.66E-10	8.29E-09	4.01E-09	2.91E-09	1.56E-08
1434	258693.6	4084400	4.667E-09	7.96E-08	5.39E-08	3.83E-08	1.77E-07	4.67E-09	7.96E-08	5.39E-08	3.83E-08	1.77E-07	7.10E-10	1.39E-08	8.86E-09	6.21E-09	2.97E-08	3.85E-10	8.73E-09	4.22E-09	3.07E-09	1.64E-08
1435	258718.6	4084400	4.913E-09	8.38E-08	5.68E-08	4.04E-08	1.86E-07	4.91E-09	8.38E-08	5.68E-08	4.04E-08	1.86E-07	7.47E-10	1.46E-08	9.32E-09	6.53E-09	3.12E-08	4.06E-10	9.20E-09	4.45E-09	3.23E-09	1.73E-08
1436	258743.6	4084400	5.193E-09	8.85E-08	6.00E-08	4.27E-08	1.96E-07	5.19E-09	8.85E-08	6.00E-08	4.27E-08	1.96E-07	7.90E-10	1.55E-08	9.85E-09	6.91E-09	3.30E-08	4.29E-10	9.72E-09	4.70E-09	3.41E-09	1.83E-08
1437	258768.6	4084400	5.495E-09	9.37E-08	6.35E-08	4.51E-08	2.08E-07	5.50E-09	9.37E-08	6.35E-08	4.51E-08	2.08E-07	8.36E-10	1.64E-08	1.04E-08	7.31E-09	3.49E-08	4.54E-10	1.03E-08	4.97E-09	3.61E-09	1.93E-08
1438	258793.6	4084400	5.8E-09	9.89E-08	6.70E-08	4.76E-08	2.19E-07	5.80E-09	9.89E-08	6.70E-08	4.76E-08	2.19E-07	8.82E-10	1.73E-08	1.10E-08	7.71E-09	3.69E-08	4.79E-10	1.09E-08	5.25E-09	3.81E-09	2.04E-08
1439	258818.6	4084400	6.13E-09	1.05E-07	7.08E-08	5.03E-08	2.32E-07	6.13E-09	1.05E-07	7.08E-08	5.03E-08	2.32E-07	9.32E-10	1.83E-08	1.16E-08	8.15E-09	3.90E-08	5.06E-10	1.15E-08	5.55E-09	4.03E-09	2.16E-08
1440	258843.6	4084400	6.297E-09	1.07E-07	7.28E-08	5.17E-08	2.38E-07	6.30E-09	1.07E-07	7.28E-08	5.17E-08	2.38E-07	9.57E-10	1.88E-08	1.19E-08	8.37E-09	4.00E-08	5.20E-10	1.18E-08	5.70E-09	4.14E-09	2.21E-08
1441	258418.6	4084425	2.665E-09	4.54E-08	3.08E-08	2.19E-08	1.01E-07	2.66E-09	4.54E-08	3.08E-08	2.19E-08	1.01E-07	4.05E-10	7.94E-09	5.06E-09	3.54E-09	1.69E-08	2.20E-10	4.99E-09	2.41E-09	1.75E-09	9.37E-09
1442	258443.6	4084425	2.791E-09	4.76E-08	3.23E-08	2.29E-08	1.06E-07	2.79E-09	4.76E-08	3.23E-08	2.29E-08	1.06E-07	4.24E-10	8.31E-09	5.29E-09	3.71E-09	1.77E-08	2.30E-10	5.22E-09	2.53E-09	1.83E-09	9.81E-09
1443	258468.6	4084425	2.925E-09	4.99E-08	3.38E-08	2.40E-08	1.11E-07	2.93E-09	4.99E-08	3.38E-08	2.40E-08	1.11E-07	4.45E-10	8.71E-09	5.55E-09	3.89E-09	1.86E-08	2.42E-10	5.47E-09	2.65E-09	1.92E-09	1.03E-08
1444	258493.6	4084425	3.069E-09	5.23E-08	3.55E-08	2.52E-08	1.16E-07	3.07E-09	5.23E-08	3.55E-08	2.52E-08	1.16E-07	4.67E-10	9.14E-09	5.82E-09	4.08E-09	1.95E-08	2.53E-10	5.74E-09	2.78E-09	2.02E-09	1.08E-08
1445	258518.6	4084425	3.223E-09	5.49E-08	3.72E-08	2.65E-08	1.22E-07	3.22E-09	5.49E-08	3.72E-08	2.65E-08	1.22E-07	4.90E-10	9.60E-09	6.11E-09	4.29E-09	2.05E-08	2.66E-10	6.03E-09	2.92E-09	2.12E-09	1.13E-08
1446	258543.6	4084425	3.387E-09	5.77E-08	3.91E-08	2.78E-08	1.28E-07	3.39E-09	5.77E-08	3.91E-08	2.78E-08	1.28E-07	5.15E-10	1.01E-08	6.43E-09	4.50E-09	2.15E-08	2.80E-10	6.34E-09	3.07E-09	2.23E-09	1.19E-08
1447	258568.6	4084425	3.563E-09	6.07E-08	4.12E-08	2.93E-08	1.35E-07	3.56E-09	6.07E-08	4.12E-08	2.93E-08	1.35E-07	5.42E-10	1.06E-08	6.76E-09	4.74E-09	2.26E-08	2.94E-10	6.67E-09	3.22E-09	2.34E-09	1.25E-08
1448	258593.6	4084425	3.763E-09	6.42E-08	4.35E-08	3.09E-08	1.42E-07	3.76E-09	6.42E-08	4.35E-08	3.09E-08	1.42E-07	5.72E-10	1.12E-08	7.14E-09	5.00E-09	2.39E-08	3.11E-10	7.04E-09	3.41E-09	2.47E-09	1.32E-08
1449	258618.6	4084425	3.978E-09	6.78E-08	4.60E-08	3.27E-08	1.50E-07	3.98E-09	6.78E-08	4.60E-08	3.27E-08	1.50E-07	6.05E-10	1.18E-08	7.55E-09	5.29E-09	2.53E-08	3.29E-10	7.45E-09	3.60E-09	2.62E-09	1.40E-08
1450	258643.6	4084425	4.213E-09	7.18E-08	4.87E-08	3.46E-08	1.59E-07	4.21E-09	7.18E-08	4.87E-08	3.46E-08	1.59E-07	6.41E-10	1.25E-08	7.99E-09	5.60E-09	2.68E-08	3.48E-10	7.88E-09	3.81E-09	2.77E-09	1.48E-08
1451	258668.6	4084425	4.443E-09	7.57E-08	5.14E-08	3.65E-08	1.68E-07	4.44E-09	7.57E-08	5.14E-08	3.65E-08	1.68E-07	6.76E-10	1.32E-08	8.43E-09	5.91E-09	2.82E-08	3.67E-10	8.31E-09	4.02E-09	2.92E-09	1.56E-08
1452	258693.6	4084425	4.685E-09	7.99E-08	5.41E-08	3.85E-08	1.77E-07	4.68E-09	7.99E-08	5.41E-08	3.85E-08	1.77E-07	7.12E-10	1.40E-08	8.89E-09	6.23E-09	2.98E-08	3.87E-10	8.77E-09	4.24E-09	3.08E-09	1.65E-08
1453	258718.6	4084425	4.937E-09	8.42E-08	5.71E-08	4.06E-08	1.87E-07	4.94E-09	8.42E-08	5.71E-08	4.06E-08	1.87E-07	7.51E-10	1.47E-08	9.37E-09	6.57E-09	3.14E-08	4.08E-10	9.24E-09	4.47E-09	3.25E-09	1.74E-08
1454	258743.6	4084425	5.286E-09	9.01E-08	6.11E-08	4.34E-08	2.00E-07	5.29E-09	9.01E-08	6.11E-08	4.34E-08	2.00E-07	8.04E-10	1.57E-08	1.00E-08	7.03E-09	3.36E-08	4.37E-10	9.89E-09	4.78E-09	3.48E-09	1.86E-08
1455	258768.6	4084425	5.662E-09	9.65E-08	6.54E-08	4.65E-08	2.14E-07	5.66E-09	9.65E-08	6.54E-08	4.65E-08	2.14E-07	8.61E-10	1.69E-08	1.07E-08	7.53E-09	3.60E-08	4.68E-10	1.06E-08	5.12E-09	3.72E-09	1.99E-08
1456	258793.6	4084425	5.925E-09	1.01E-07	6.85E-08	4.87E-08	2.24E-07	5.93E-09	1.01E-07	6.85E-08	4.87E-08	2.24E-07	9.01E-10	1.76E-08	1.12E-08	7.88E-09	3.77E-08	4.89E-10	1.11E-08	5.36E-09	3.90E-09	2.08E-08
1457	258818.6	4084425	6.144E-09	1.05E-07	7.10E-08	5.05E-08	2.32E-07	6.14E-09	1.05E-07	7.10E-08	5.05E-08	2.32E-07	9.34E-10	1.83E-08	1.17E-08	8.17E-09	3.91E-08	5.07E-10	1.15E-08	5.56E-09	4.04E-09	2.16E-08
1458	258843.6	4084425	6.316E-09	1.08E-07	7.30E-08	5.19E-08	2.39E-07	6.32E-09	1.08E-07	7.30E-08	5.19E-08	2.39E-07	9.60E-10	1.88E-08	1.20E-08	8.40E-09	4.02E-08	5.22E-10	1.18E-08	5.72E-09	4.15E-09	2.22E-08
1459	258418.6	4084450	2.626E-09	4.48E-08	3.03E-08	2.16E-08	9.93E-08	2.63E-09	4.48E-08	3.03E-08	2.16E-08	9.93E-08	3.99E-10	7.82E-09	4.98E-09	3.49E-09	1.67E-08	2.17E-10	4.91E-09	2.38E-09	1.73E-09	9.23E-09
1460	258443.6	4084450	2.772E-09	4.73E-08	3.20E-08	2.28E-08	1.05E-07	2.77E-09	4.73E-08	3.20E-08	2.28E-08	1.05E-07	4.21E-10	8.25E-09	5.26E-09	3.69E-09	1.76E-08	2.29E-10	5.19E-09	2.51E-09	1.82E-09	9.75E-09
1461	258468.6	4084450	2.93E-09	5.00E-08	3.39E-08	2.41E-08	1.11E-07	2.93E-09	5.00E-08	3.39E-08	2.41E-08	1.11E-07	4.46E-10	8.73E-09	5.56E-09	3.90E-09	1.86E-08	2.42E-10	5.48E-09	2.65E-09	1.93E-09	1.03E-08
1462	258493.6	4084450	3.075E-09	5.24E-08	3.55E-08	2.53E-08	1.16E-07	3.08E-09	5.24E-08	3.55E-08	2.53E-08	1.16E-07	4.68E-10	9.16E-09	5.83E-09	4.09E-09	1.95E-08	2.54E-10	5.76E-09	2.78E-09	2.02E-09	1.08E-08
1463	258518.6	4084450	3.23E-09	5.51E-08	3.73E-08	2.65E-08	1.22E-07	3.23E-09	5.51E-08	3.73E-08	2.65E-08	1.22E-07	4.91E-10	9.62E-09	6.13E-09	4.30E-09	2.05E-08	2.67E-10	6.05E-09	2.92E-09	2.12E-09	1.14E-08
1464	258543.6	4084450	3.396E-09	5.79E-08	3.93E-08	2.79E-08	1.28E-07	3.40E-09	5.79E-08	3.93E-08	2.79E-08	1.28E-07	5.16E-10	1.01E-08	6.44E-09	4.52E-09	2.16E-08	2.80E-10	6.36E-09	3.07E-09	2.23E-09	1.19E-08
1465	258568.6	4084450	3.574E-09	6.09E-08	4.13E-08	2.94E-08	1.35E-07	3.57E-09	6.09E-08	4.13E-08	2.94E-08	1.35E-07	5.43E-10	1.06E-08	6.78E-09	4.75E-09	2.27E-08	2.95E-10	6.69E-09	3.23E-09	2.35E-09	1.26E-08
1466	258593.6	4084450	3.764E-09	6.42E-08	4.35E-08	3.09E-08	1.42E-07	3.76E-09	6.42E-08	4.35E-08	3.09E-08	1.42E-07	5.72E-10	1.12E-08	7.14E-09	5.01E-09	2.39E-08	3.11E-10	7.04E-09	3.41E-09	2.47E-09	1.32E-08
1467	258618.6	4084450	3.966E-09	6.76E-08	4.58E-08	3.26E-08	1.50E-07	3.97E-09	6.76E-08	4.58E-08	3.26E-08	1.50E-07	6.03E-10	1.18E-08	7.53E-09	5.27E-09	2.52E-08	3.28E-10	7.42E-09	3.59E-09	2.61E-09	1.39E-08
1468	258643.6	4084450	4.182E-09	7.13E-08	4.83E-08	3.44E-08	1.58E-07	4.18E-09	7.13E-08	4.83E-08	3.44E-08	1.58E-07	6.36E-10	1.25E-08	7.94E-09	5.56E-09	2.66E-08	3.45E-10	7.83E-09	3.79E-09	2.75E-09	1.47E-08
1469	258668.6	4084450	4.412E-09	7.52E-08	5.10E-08	3.62E-08	1.67E-07	4.41E-09	7.52E-08	5.10E-08	3.62E-08	1.67E-07	6.71E-10	1.31E-08	8.37E-09	5.87E-09	2.80E-08	3.64E-10	8.26E-09	3.99E-09	2.90E-09	1.55E-08
1470	258693.6	4084450	4.654E-09	7.93E-08	5.38E-08	3.82E-08	1.76E-07	4.65E-09	7.93E-08	5.38E-08	3.82E-08	1.76E-07	7.08E-10	1.39E-08	8.83E-09	6.19E-09	2.96E-08	3.84E-10	8.71E-09	4.21E-09	3.06E-09	1.64E-08
1471	258718.6	4084450	4.977E-09	8.48E-08	5.75E-08	4.09E-08	1.88E-07	4.98E-09	8.48E-08	5.75E-08	4.09E-08	1.88E-07	7.57E-10	1.48E-08	9.44E-09	6.62E-09	3.16E-08	4.11E-10	9.31E-09	4.50E-09	3.27E-09	1.75E-08
1472	258743.6	4084450	5.319E-09	9.07E-08	6.15E-08	4.37E-08	2.01E-07	5.32E-09	9.07E-08	6.15E-08	4.37E-08	2.01E-07	8.09E-10	1.58E-08	1.01E-08	7.07E-09	3.38E-08	4.39E-10	9.95E-09	4.81E-09	3.50E-09	1.87E-08
1473	258768.6	4084450	5.636E-09	9.61E-08	6.51E-08	4.63E-08	2.13E-07	5.64E-09	9.61E-08	6.51E-08	4.63E-08	2.13E-07	8.57E-10	1.68E-08	1.07E-08	7.50E-09	3.58E-08	4.65E-10	1.05E-08	5.10E-09	3.71E-09	1.98E-08
1474	258793.6	4084450	5.904E-09	1.01E-07	6.82E-08	4.85E-08	2.23E-07	5.90E-09	1.01E-07	6.82E-08	4.85E-08	2.23E-07	8.98E-10	1.76E-08	1.12E-08	7.85E-09	3.75E-08	4.88E-10	1.10E-08	5.34E-09	3.88E-09	2.08E-08
1475	258818.6	4084450	6.128E-09	1.04E-07	7.08E-08	5.03E-08	2.32E-07	6.13E-09	1.04E-07	7.08E-08	5.03E-08	2.32E-07	9.32E-10	1.82E-08	1.16E-08	8.15E-09	3.90E-08	5.06E-10	1.15E-08	5.55E-09	4.03E-09	2.15E-08
1476	258843.6	4084450	6.306E-09	1.08E-07	7.29E-08	5.18E-08	2.39E-07	6.31E-09	1.08E-07	7.29E-08	5.18E-08	2.39E-07	9.59E-10	1.88E-08	1.20E-08	8.39E-09	4.01E-08	5.21E-10	1.18E-08	5.71E-09	4.15E-09	2.22E-08
1477	258418.6	4084475	2.616E-09	4.46E-08	3.02E-08	2.15E-08	9.89E-08	2.62E-09	4.46E-08	3.02E-08	2.15E-08	9.89E-08	3.98E-10	7.79E-09	4.96E-09	3.48E-09	1.66E-08	2.16E-10	4.89E-09	2.37E-09	1.72E-09	9.20E-09
1478	258443.6	4084475	2.756E-09	4.70E-08	3.19E-08	2.26E-08	1.04E-07	2.76E-09	4.70E-08	3.19E-08	2.26E-08	1.04E-07	4.19E-10	8.21E-09	5.23E-09	3.67E-09	1.75E-08	2.28E-10	5.16E-09	2.49E-09	1.81E-09	9.69E-09
1479	258468.6	4084475	2.901E-09	4.95E-08	3.35E-08	2.38E-08	1.10E-07	2.90E-09	4.95E-08	3.35E-08	2.38E-08	1.10E-07	4.41E-10	8.64E-09	5.50E-09	3.86E-09	1.84E-08	2.40E-10	5.43E-09	2.62E-09	1.91E-09	1.02E-08
1480	258493.6	4084475	3.043E-09	5.19E-08	3.52E-08	2.50E-08	1.15E-07	3.04E-09	5.19E-08	3.52E-08	2.50E-08	1.15E-07	4.63E-10	9.06E-09	5.77E-09	4.05E-09	1.93E-08	2.51E-10	5.69E-09	2.75E-09	2.00E-09	1.07E-08
1481	258518.6	4084475	3.195E-09	5.45E-08	3.69E-08	2.62E-08	1.21E-07	3.19E-09	5.45E-08	3.69E-08	2.62E-08	1.21E-07	4.86E-10	9.51E-09	6.06E-09	4.25E-09	2.03E-08	2.64E-10	5.98E-09	2.89E-09	2.10E-09	1.12E-08
1482	258543.6	4084475	3.357E-09	5.72E-08	3.88E-08	2.76E-08	1.27E-07	3.36E-09	5.72E-08	3.88E-08	2.76E-08	1.27E-07	5.11E-10	1.00E-08	6.37E-09	4.47E-09	2.13E-08	2.77E-10	6.28E-09	3.04E-09	2.21E-09	1.18E-08
1483	258568.6	4084475	3.532E-09	6.02E-08	4.08E-08	2.90E-08	1.34E-07	3.53E-09	6.02E-08	4.08E-08	2.90E-08	1.34E-07	5.37E-10	1.05E-08	6.70E-09	4.70E-09	2.25E-08	2.92E-10	6.61E-09	3.20E-09	2.32E-09	1.24E-08
1484	258593.6	4084475	3.718E-09	6.34E-08	4.30E-08	3.05E-08	1.41E-07	3.72E-09	6.34E-08	4.30E-08	3.05E-08	1.41E-07	5.65E-10	1.11E-08	7.06E-09	4.95E-09	2.36E-08	3.07E-10	6.96E-09	3.37E-09	2.44E-09	1.31E-08
1485	258618.6	4084475	3.918E-09	6.68E-08	4.53E-08	3.22E-08	1.48E-07	3.92E-09	6.68E-08	4.53E-08	3.22E-08	1.48E-07	5.96E-10	1.17E-08	7.43E-09	5.21E-09	2.49E-08	3.24E-10	7.33E-09	3.55E-09	2.58E-09	1.38E-08
1486	258643.6	4084475	4.131E-09	7.04E-08	4.78E-08	3.39E-08	1.56E-07	4.13E-09	7.04E-08	4.78E-08	3.39E-08	1.56E-07	6.28E-10	1.23E-08	7.84E-09	5.49E-09	2.63E-08	3.41E-10	7.73E-09	3.74E-09	2.72E-09	1.45E-08
1487	258668.6	4084475	4.359E-09	7.43E-08	5.04E-08	3.58E-08	1.65E-07	4.36E-09	7.43E-08	5.04E-08	3.58E-08	1.65E-07	6.63E-10	1.30E-08	8.27E-09	5.80E-09	2.77E-08	3.60E-10	8.16E-09	3.94E-09	2.87E-09	1.53E-08
1488	258693.6	4084475	4.599E-09	7.84E-08	5.32E-08	3.78E-08	1.74E-07	4.60E-09	7.84E-08	5.32E-08	3.78E-08	1.74E-07	6.99E-10	1.37E-08	8.73E-09	6.12E-09	2.92E-08	3.80E-10	8.61E-09	4.16E-09	3.02E-09	1.62E-08
1489	258718.6	4084475	4.954E-09	8.45E-08	5.73E-08	4.07E-08	1.87E-07	4.95E-09	8.45E-08	5.73E-08	4.07E-08	1.87E-07	7.53E-10	1.48E-08	9.40E-09	6.59E-09	3.15E-08	4.09E-10	9.27E-09	4.48E-09	3.26E-09	1.74E-08
1490	258743.6	4084475	5.291E-09	9.02E-08	6.11E-08	4.35E-08	2.00E-07	5.29E-09	9.02E-08	6.11E-08	4.35E-08	2.00E-07	8.04E-10	1.58E-08	1.00E-08	7.04E-09	3.36E-08	4.37E-10	9.90E-09	4.79E-09	3.48E-09	1.86E-08
1491	258768.6	4084475	5.578E-09	9.51E-08	6.45E-08	4.58E-08	2.11E-07	5.58E-09	9.51E-08	6.45E-08	4.58E-08	2.11E-07	8.48E-10	1.66E-08	1.06E-08	7.42E-09	3.55E-08	4.61E-10	1.04E-08	5.05E-09	3.67E-09	1.96E-08
1492	258793.6	4084475	5.85E-09	9.97E-08	6.76E-08	4.80E-08	2.21E-07	5.85E-09	9.97E-08	6.76E-08	4.80E-08	2.21E-07	8.89E-10	1.74E-08	1.11E-08	7.78E-09	3.72E-08	4.83E-10	1.09E-08	5.29E-09	3.85E-09	2.06E-08
1493	258818.6	4084475	6.081E-09	1.04E-07	7.03E-08	4.99E-08	2.30E-07	6.08E-09	1.04E-07	7.03E-08	4.99E-08	2.30E-07	9.25E-10	1.81E-08	1.15E-08	8.09E-09	3.87E-08	5.02E-10	1.14E-08	5.50E-09	4.00E-09	2.14E-08
1494	258843.6	4084475	6.267E-09	1.07E-07	7.24E-08	5.15E-08	2.37E-07	6.27E-09	1.07E-07	7.24E-08	5.15E-08	2.37E-07	9.53E-10	1.87E-08	1.19E-08	8.33E-09	3.98E-08	5.18E-10	1.17E-08	5.67E-09	4.12E-09	2.20E-08
1495	258418.6	4084500	2.601E-09	4.44E-08	3.01E-08	2.14E-08	9.84E-08	2.60E-09	4.44E-08	3.01E-08	2.14E-08	9.84E-08	3.96E-10	7.75E-09	4.94E-09	3.46E-09	1.65E-08	2.15E-10	4.87E-09	2.35E-09	1.71E-09	9.15E-09
1496	258443.6	4084500	2.732E-09	4.66E-08	3.16E-08	2.24E-08	1.03E-07	2.73E-09	4.66E-08	3.16E-08	2.24E-08	1.03E-07	4.15E-10	8.13E-09	5.18E-09	3.63E-09	1.74E-08	2.26E-10	5.11E-09	2.47E-09	1.80E-09	9.61E-09
1497	258468.6	4084500	2.861E-09	4.88E-08	3.31E-08	2.35E-08	1.08E-07	2.86E-09	4.88E-08	3.31E-08	2.35E-08	1.08E-07	4.35E-10	8.52E-09	5.43E-09	3.81E-09	1.82E-08	2.36E-10	5.35E-09	2.59E-09	1.88E-09	1.01E-08
1498	258493.6	4084500	2.999E-09	5.11E-08	3.47E-08	2.46E-08	1.13E-07	3.00E-09	5.11E-08	3.47E-08	2.46E-08	1.13E-07	4.56E-10	8.93E-09	5.69E-09	3.99E-09	1.91E-08	2.48E-10	5.61E-09	2.71E-09	1.97E-09	1.05E-08
1499	258518.6	4084500	3.147E-09	5.37E-08	3.64E-08	2.59E-08	1.19E-07	3.15E-09	5.37E-08	3.64E-08	2.59E-08	1.19E-07	4.79E-10	9.37E-09	5.97E-09	4.19E-09	2.00E-08	2.60E-10	5.89E-09	2.85E-09	2.07E-09	1.11E-08
1500	258543.6	4084500	3.306E-09	5.64E-08	3.82E-08	2.72E-08	1.25E-07	3.31E-09	5.64E-08	3.82E-08	2.72E-08	1.25E-07	5.03E-10	9.84E-09	6.27E-09	4.40E-09	2.10E-08	2.73E-10	6.19E-09	2.99E-09	2.17E-09	1.16E-08
1501	258568.6	4084500	3.476E-09	5.93E-08	4.02E-08	2.85E-08	1.31E-07	3.48E-09	5.93E-08	4.02E-08	2.85E-08	1.31E-07	5.28E-10	1.03E-08	6.59E-09	4.62E-09	2.21E-08	2.87E-10	6.50E-09	3.15E-09	2.28E-09	1.22E-08
1502	258593.6	4084500	3.658E-09	6.24E-08	4.23E-08	3.00E-08	1.38E-07	3.66E-09	6.24E-08	4.23E-08	3.00E-08	1.38E-07	5.56E-10	1.09E-08	6.94E-09	4.86E-09	2.33E-08	3.02E-10	6.84E-09	3.31E-09	2.40E-09	1.29E-08
1503	258618.6	4084500	3.853E-09	6.57E-08	4.45E-08	3.16E-08	1.46E-07	3.85E-09	6.57E-08	4.45E-08	3.16E-08	1.46E-07	5.86E-10	1.15E-08	7.31E-09	5.12E-09	2.45E-08	3.18E-10	7.21E-09	3.49E-09	2.53E-09	1.35E-08
1504	258643.6	4084500	4.061E-09	6.92E-08	4.69E-08	3.34E-08	1.54E-07	4.06E-09	6.92E-08	4.69E-08	3.34E-08	1.54E-07	6.18E-10	1.21E-08	7.71E-09	5.40E-09	2.58E-08	3.35E-10	7.60E-09	3.68E-09	2.67E-09	1.43E-08
1505	258668.6	4084500	4.284E-09	7.30E-08	4.95E-08	3.52E-08	1.62E-07	4.28E-09	7.30E-08	4.95E-08	3.52E-08	1.62E-07	6.51E-10	1.28E-08	8.13E-09	5.70E-09	2.72E-08	3.54E-10	8.02E-09	3.88E-09	2.82E-09	1.51E-08
1506	258693.6	4084500	4.52E-09	7.71E-08	5.22E-08	3.71E-08	1.71E-07	4.52E-09	7.71E-08	5.22E-08	3.71E-08	1.71E-07	6.87E-10	1.35E-08	8.58E-09	6.01E-09	2.87E-08	3.73E-10	8.46E-09	4.09E-09	2.97E-09	1.59E-08
1507	258718.6	4084500	4.868E-09	8.30E-08	5.63E-08	4.00E-08

| | | |

1688	258418.6	4084750	2.023E-09	3.45E-08	2.34E-08	1.66E-08	7.65E-08
1689	258443.6	4084750	2.094E-09	3.57E-08	2.42E-08	1.72E-08	7.92E-08
1690	258468.6	4084750	2.168E-09	3.70E-08	2.51E-08	1.78E-08	8.20E-08
1691	258493.6	4084750	2.245E-09	3.83E-08	2.59E-08	1.84E-08	8.49E-08
1692	258518.6	4084750	2.326E-09	3.96E-08	2.69E-08	1.91E-08	8.80E-08
1693	258543.6	4084750	2.41E-09	4.11E-08	2.79E-08	1.98E-08	9.11E-08
1694	258568.6	4084750	2.516E-09	4.29E-08	2.91E-08	2.07E-08	9.52E-08
1695	258593.6	4084750	2.619E-09	4.46E-08	3.03E-08	2.15E-08	9.90E-08
1696	258618.6	4084750	2.722E-09	4.64E-08	3.15E-08	2.24E-08	1.03E-07
1697	258643.6	4084750	2.835E-09	4.83E-08	3.28E-08	2.33E-08	1.07E-07
1698	258668.6	4084750	2.942E-09	5.02E-08	3.40E-08	2.42E-08	1.11E-07
1699	258693.6	4084750	3.052E-09	5.20E-08	3.53E-08	2.51E-08	1.15E-07
1700	258718.6	4084750	3.166E-09	5.40E-08	3.66E-08	2.60E-08	1.20E-07
1701	258743.6	4084750	3.284E-09	5.60E-08	3.80E-08	2.70E-08	1.24E-07
1702	258768.6	4084750	3.404E-09	5.80E-08	3.93E-08	2.80E-08	1.29E-07
1703	258793.6	4084750	3.526E-09	6.01E-08	4.08E-08	2.90E-08	1.33E-07
1704	258818.6	4084750	3.649E-09	6.22E-08	4.22E-08	3.00E-08	1.38E-07
1705	258843.6	4084750	3.771E-09	6.43E-08	4.36E-08	3.10E-08	1.43E-07
1706	258868.6	4084750	3.887E-09	6.63E-08	4.49E-08	3.19E-08	1.47E-07
1707	258893.6	4084750	3.995E-09	6.81E-08	4.62E-08	3.28E-08	1.51E-07
1708	258418.6	4084775	1.952E-09	3.33E-08	2.26E-08	1.60E-08	7.38E-08
1709	258443.6	4084775	2.017E-09	3.44E-08	2.33E-08	1.66E-08	7.63E-08
1710	258468.6	4084775	2.085E-09	3.56E-08	2.41E-08	1.71E-08	7.89E-08
1711	258493.6	4084775	2.157E-09	3.68E-08	2.49E-08	1.77E-08	8.16E-08
1712	258518.6	4084775	2.231E-09	3.80E-08	2.58E-08	1.83E-08	8.44E-08
1713	258543.6	4084775	2.323E-09	3.96E-08	2.68E-08	1.91E-08	8.78E-08
1714	258568.6	4084775	2.42E-09	4.13E-08	2.80E-08	1.99E-08	9.15E-08
1715	258593.6	4084775	2.512E-09	4.28E-08	2.90E-08	2.06E-08	9.50E-08
1716	258618.6	4084775	2.601E-09	4.43E-08	3.01E-08	2.14E-08	9.84E-08
1717	258643.6	4084775	2.694E-09	4.59E-08	3.11E-08	2.21E-08	1.02E-07
1718	258668.6	4084775	2.789E-09	4.76E-08	3.22E-08	2.29E-08	1.05E-07
1719	258693.6	4084775	2.888E-09	4.92E-08	3.34E-08	2.37E-08	1.09E-07
1720	258718.6	4084775	2.989E-09	5.10E-08	3.45E-08	2.45E-08	1.13E-07
1721	258743.6	4084775	3.092E-09	5.27E-08	3.57E-08	2.54E-08	1.17E-07
1722	258768.6	4084775	3.197E-09	5.45E-08	3.70E-08	2.63E-08	1.21E-07
1723	258793.6	4084775	3.303E-09	5.63E-08	3.82E-08	2.71E-08	1.25E-07
1724	258818.6	4084775	3.409E-09	5.81E-08	3.94E-08	2.80E-08	1.29E-07
1725	258843.6	4084775	3.513E-09	5.99E-08	4.06E-08	2.89E-08	1.33E-07
1726	258868.6	4084775	3.611E-09	6.16E-08	4.17E-08	2.97E-08	1.37E-07
1727	258893.6	4084775	3.704E-09	6.31E-08	4.28E-08	3.04E-08	1.40E-07
1728	258418.6	4084800	1.88E-09	3.20E-08	2.17E-08	1.54E-08	7.11E-08
1729	258443.6	4084800	1.94E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08
1730	258468.6	4084800	2.003E-09	3.41E-08	2.32E-08	1.65E-08	7.58E-08
1731	258493.6	4084800	2.07E-09	3.53E-08	2.39E-08	1.70E-08	7.83E-08
1732	258518.6	4084800	2.146E-09	3.66E-08	2.48E-08	1.76E-08	8.12E-08
1733	258543.6	4084800	2.235E-09	3.81E-08	2.58E-08	1.84E-08	8.45E-08
1734	258568.6	4084800	2.314E-09	3.95E-08	2.67E-08	1.90E-08	8.75E-08
1735	258593.6	4084800	2.392E-09	4.08E-08	2.76E-08	1.96E-08	9.05E-08
1736	258618.6	4084800	2.472E-09	4.21E-08	2.86E-08	2.03E-08	9.35E-08
1737	258643.6	4084800	2.555E-09	4.36E-08	2.95E-08	2.10E-08	9.66E-08
1738	258668.6	4084800	2.64E-09	4.50E-08	3.05E-08	2.17E-08	9.99E-08
1739	258693.6	4084800	2.728E-09	4.65E-08	3.15E-08	2.24E-08	1.03E-07
1740	258718.6	4084800	2.817E-09	4.80E-08	3.26E-08	2.31E-08	1.07E-07
1741	258743.6	4084800	2.909E-09	4.96E-08	3.36E-08	2.39E-08	1.10E-07
1742	258768.6	4084800	3.001E-09	5.12E-08	3.47E-08	2.46E-08	1.13E-07
1743	258793.6	4084800	3.093E-09	5.27E-08	3.57E-08	2.54E-08	1.17E-07
1744	258818.6	4084800	3.185E-09	5.43E-08	3.68E-08	2.62E-08	1.20E-07
1745	258843.6	4084800	3.275E-09	5.58E-08	3.78E-08	2.69E-08	1.24E-07
1746	258868.6	4084800	3.362E-09	5.73E-08	3.89E-08	2.76E-08	1.27E-07
1747	258893.6	4084800	3.446E-09	5.88E-08	3.98E-08	2.83E-08	1.30E-07
1748	258418.6	4084825	1.808E-09	3.08E-08	2.09E-08	1.48E-08	6.84E-08
1749	258443.6	4084825	1.863E-09	3.18E-08	2.15E-08	1.53E-08	7.05E-08
1750	258468.6	4084825	1.922E-09	3.28E-08	2.22E-08	1.58E-08	7.27E-08
1751	258493.6	4084825	1.988E-09	3.39E-08	2.30E-08	1.63E-08	7.52E-08
1752	258518.6	4084825	2.07E-09	3.53E-08	2.39E-08	1.70E-08	7.83E-08
1753	258543.6	4084825	2.136E-09	3.64E-08	2.47E-08	1.75E-08	8.08E-08
1754	258568.6	4084825	2.203E-09	3.76E-08	2.55E-08	1.81E-08	8.33E-08
1755	258593.6	4084825	2.273E-09	3.88E-08	2.63E-08	1.87E-08	8.60E-08
1756	258618.6	4084825	2.345E-09	4.00E-08	2.71E-08	1.93E-08	8.87E-08
1757	258643.6	4084825	2.42E-09	4.12E-08	2.80E-08	1.99E-08	9.15E-08
1758	258668.6	4084825	2.496E-09	4.25E-08	2.88E-08	2.05E-08	9.44E-08
1759	258693.6	4084825	2.573E-09	4.39E-08	2.97E-08	2.11E-08	9.73E-08
1760	258718.6	4084825	2.653E-09	4.52E-08	3.07E-08	2.18E-08	1.00E-07
1761	258743.6	4084825	2.733E-09	4.66E-08	3.16E-08	2.25E-08	1.03E-07
1762	258768.6	4084825	2.815E-09	4.80E-08	3.25E-08	2.31E-08	1.06E-07
1763	258793.6	4084825	2.896E-09	4.94E-08	3.35E-08	2.38E-08	1.10E-07
1764	258818.6	4084825	2.978E-09	5.08E-08	3.44E-08	2.45E-08	1.13E-07
1765	258843.6	4084825	3.06E-09	5.22E-08	3.54E-08	2.51E-08	1.16E-07
1766	258868.6	4084825	3.141E-09	5.35E-08	3.63E-08	2.58E-08	1.19E-07
1767	258893.6	4084825	3.222E-09	5.49E-08	3.72E-08	2.65E-08	1.22E-07
1768	258418.6	4084850	1.736E-09	2.96E-08	2.01E-08	1.43E-08	6.56E-08
1769	258443.6	4084850	1.786E-09	3.05E-08	2.06E-08	1.47E-08	6.76E-08
1770	258468.6	4084850	1.846E-09	3.15E-08	2.13E-08	1.52E-08	6.98E-08
1771	258493.6	4084850	1.917E-09	3.27E-08	2.22E-08	1.57E-08	7.25E-08
1772	258518.6	4084850	1.975E-09	3.37E-08	2.28E-08	1.62E-08	7.47E-08
1773	258543.6	4084850	2.034E-09	3.47E-08	2.35E-08	1.67E-08	7.69E-08
1774	258568.6	4084850	2.095E-09	3.57E-08	2.42E-08	1.72E-08	7.92E-08
1775	258593.6	4084850	2.157E-09	3.68E-08	2.49E-08	1.77E-08	8.16E-08
1776	258618.6	4084850	2.222E-09	3.79E-08	2.57E-08	1.82E-08	8.40E-08
1777	258643.6	4084850	2.288E-09	3.90E-08	2.64E-08	1.88E-08	8.65E-08
1778	258668.6	4084850	2.355E-09	4.02E-08	2.72E-08	1.93E-08	8.91E-08
1779	258693.6	4084850	2.424E-09	4.13E-08	2.80E-08	1.99E-08	9.17E-08
1780	258718.6	4084850	2.495E-09	4.25E-08	2.88E-08	2.05E-08	9.44E-08
1781	258743.6	4084850	2.567E-09	4.38E-08	2.97E-08	2.11E-08	9.71E-08
1782	258768.6	4084850	2.64E-09	4.50E-08	3.05E-08	2.17E-08	9.98E-08
1783	258793.6	4084850	2.714E-09	4.63E-08	3.14E-08	2.23E-08	1.03E-07
1784	258818.6	4084850	2.789E-09	4.75E-08	3.22E-08	2.29E-08	1.05E-07
1785	258843.6	4084850	2.866E-09	4.89E-08	3.31E-08	2.35E-08	1.08E-07
1786	258868.6	4084850	2.944E-09	5.02E-08	3.40E-08	2.42E-08	1.11E-07
1787	258893.6	4084850	3.024E-09	5.16E-08	3.50E-08	2.48E-08	1.14E-07
1788	258418.6	4084875	1.664E-09	2.84E-08	1.92E-08	1.37E-08	6.29E-08
1789	258443.6	4084875	1.71E-09	2.91E-08	1.98E-08	1.40E-08	6.47E-08
1790	258468.6	4084875	1.764E-09	3.01E-08	2.04E-08	1.45E-08	6.67E-08
1791	258493.6	4084875	1.829E-09	3.12E-08	2.11E-08	1.50E-08	6.92E-08
1792	258518.6	4084875	1.881E-09	3.21E-08	2.17E-08	1.54E-08	7.11E-08
1793	258543.6	4084875	1.933E-09	3.30E-08	2.23E-08	1.59E-08	7.31E-08
1794	258568.6	4084875	1.988E-09	3.39E-08	2.30E-08	1.63E-08	7.52E-08
1795	258593.6	4084875	2.044E-09	3.48E-08	2.36E-08	1.68E-08	7.73E-08
1796	258618.6	4084875	2.101E-09	3.58E-08	2.43E-08	1.73E-08	7.95E-08
1797	258643.6	4084875	2.16E-09	3.68E-08	2.50E-08	1.77E-08	8.17E-08
1798	258668.6	4084875	2.22E-09	3.78E-08	2.57E-08	1.82E-08	8.40E-08
1799	258693.6	4084875	2.282E-09	3.89E-08	2.64E-08	1.87E-08	8.63E-08
1800	258718.6	4084875	2.345E-09	4.00E-08	2.71E-08	1.93E-08	8.87E-08
1801	258743.6	4084875	2.409E-09	4.11E-08	2.78E-08	1.98E-08	9.11E-08
1802	258768.6	4084875	2.476E-09	4.22E-08	2.86E-08	2.03E-08	9.36E-08
1803	258793.6	4084875	2.544E-09	4.34E-08	2.94E-08	2.09E-08	9.62E-08
1804	258818.6	4084875	2.615E-09	4.46E-08	3.02E-08	2.15E-08	9.89E-08
1805	258843.6	4084875	2.689E-09	4.58E-08	3.11E-08	2.21E-08	1.02E-07
1806	258868.6	4084875	2.766E-09	4.72E-08	3.20E-08	2.27E-08	1.05E-07
1807	258418.6	4084900	1.593E-09	2.72E-08	1.84E-08	1.31E-08	6.02E-08
1808	258443.6	4084900	1.641E-09	2.80E-08	1.90E-08	1.35E-08	6.20E-08
1809	258468.6	4084900	1.693E-09	2.89E-08	1.96E-08	1.39E-08	6.40E-08
1810	258493.6	4084900	1.742E-09	2.97E-08	2.01E-08	1.43E-08	6.59E-08
1811	258518.6	4084900	1.788E-09	3.05E-08	2.07E-08	1.47E-08	6.76E-08
1812	258543.6	4084900	1.835E-09	3.13E-08	2.12E-08	1.51E-08	6.94E-08
1813	258568.6	4084900	1.884E-09	3.21E-08	2.18E-08	1.55E-08	7.12E-08
1814	258593.6	4084900	1.934E-09	3.30E-08	2.23E-08	1.59E-08	7.31E-08
1815	258618.6	4084900	1.985E-09	3.38E-08	2.29E-08	1.63E-08	7.51E-08
1816	258643.6	4084900	2.037E-09	3.47E-08	2.35E-08	1.67E-08	7.70E-08
1817	258668.6	4084900	2.09E-09	3.56E-08	2.42E-08	1.72E-08	7.91E-08

			2.02E-09	3.45E-08	2.34E-08	1.66E-08	7.65E-08
			2.09E-09	3.57E-08	2.42E-08	1.72E-08	7.92E-08
			2.17E-09	3.70E-08	2.51E-08	1.78E-08	8.20E-08
			2.24E-09	3.83E-08	2.59E-08	1.84E-08	8.49E-08
			2.33E-09	3.96E-08	2.69E-08	1.91E-08	8.80E-08
			2.41E-09	4.11E-08	2.79E-08	1.98E-08	9.11E-08
			2.52E-09	4.29E-08	2.91E-08	2.07E-08	9.52E-08
			2.62E-09	4.46E-08	3.03E-08	2.15E-08	9.90E-08
			2.72E-09	4.64E-08	3.15E-08	2.24E-08	1.03E-07
			2.84E-09	4.83E-08	3.28E-08	2.33E-08	1.07E-07
			2.94E-09	5.02E-08	3.40E-08	2.42E-08	1.11E-07
			3.05E-09	5.20E-08	3.53E-08	2.51E-08	1.15E-07
			3.17E-09	5.40E-08	3.66E-08	2.60E-08	1.20E-07
			3.28E-09	5.60E-08	3.80E-08	2.70E-08	1.24E-07
			3.40E-09	5.80E-08	3.93E-08	2.80E-08	1.29E-07
			3.53E-09	6.01E-08	4.08E-08	2.90E-08	1.33E-07
			3.65E-09	6.22E-08	4.22E-08	3.00E-08	1.38E-07
			3.77E-09	6.43E-08	4.36E-08	3.10E-08	1.43E-07
			3.89E-09	6.63E-08	4.49E-08	3.19E-08	1.47E-07
			4.00E-09	6.81E-08	4.62E-08	3.28E-08	1.51E-07
			1.95E-09	3.33E-08	2.26E-08	1.60E-08	7.38E-08
			2.02E-09	3.44E-08	2.33E-08	1.66E-08	7.63E-08
			2.09E-09	3.56E-08	2.41E-08	1.71E-08	7.89E-08
			2.16E-09	3.68E-08	2.49E-08	1.77E-08	8.16E-08
			2.23E-09	3.80E-08	2.58E-08	1.83E-08	8.44E-08
			2.32E-09	3.96E-08	2.68E-08	1.91E-08	8.78E-08
			2.42E-09	4.13E-08	2.80E-08	1.99E-08	9.15E-08
			2.51E-09	4.28E-08	2.90E-08	2.06E-08	9.50E-08
			2.60E-09	4.43E-08	3.01E-08	2.14E-08	9.84E-08
			2.69E-09	4.59E-08	3.11E-08	2.21E-08	1.02E-07
			2.79E-09	4.76E-08	3.22E-08	2.29E-08	1.05E-07
			2.89E-09	4.92E-08	3.34E-08	2.37E-08	1.09E-07
			2.99E-09	5.10E-08	3.45E-08	2.45E-08	1.13E-07
			3.09E-09	5.27E-08	3.57E-08	2.54E-08	1.17E-07
			3.20E-09	5.45E-08	3.70E-08	2.63E-08	1.21E-07
			3.30E-09	5.63E-08	3.82E-08	2.71E-08	1.25E-07
			3.41E-09	5.81E-08	3.94E-08	2.80E-08	1.29E-07
			3.51E-09	5.99E-08	4.06E-08	2.89E-08	1.33E-07
			3.61E-09	6.16E-08	4.17E-08	2.97E-08	1.37E-07
			3.70E-09	6.31E-08	4.28E-08	3.04E-08	1.40E-07
			1.88E-09	3.20E-08	2.17E-08	1.54E-08	7.11E-08
			1.94E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08
			2.00E-09	3.41E-08	2.32E-08	1.65E-08	7.58E-08
			2.07E-09	3.53E-08	2.39E-08	1.70E-08	7.83E-08
			2.15E-09	3.66E-08	2.48E-08	1.76E-08	8.12E-08
			2.24E-09	3.81E-08	2.58E-08	1.84E-08	8.45E-08
			2.31E-09	3.95E-08	2.67E-08	1.90E-08	8.75E-08
			2.39E-09	4.08E-08	2.76E-08	1.96E-08	9.05E-08
			2.47E-09	4.21E-08	2.86E-08	2.03E-08	9.35E-08
			2.55E-09	4.36E-08	2.95E-08	2.10E-08	9.66E-08
			2.64E-09	4.50E-08	3.05E-08	2.17E-08	9.99E-08
			2.73E-09	4.65E-08	3.15E-08	2.24E-08	1.03E-07
			2.82E-09	4.80E-08	3.26E-08	2.31E-08	1.07E-07
			2.91E-09	4.96E-08	3.36E-08	2.39E-08	1.10E-07
			3.00E-09	5.12E-08	3.47E-08	2.46E-08	1.13E-07
			3.09E-09	5.27E-08	3.57E-08	2.54E-08	1.17E-07
			3.18E-09	5.43E-08	3.68E-08	2.62E-08	1.20E-07
			3.27E-09	5.58E-08	3.78E-08	2.69E-08	1.24E-07
			3.36E-09	5.73E-08	3.89E-08	2.76E-08	1.27E-07
			3.45E-09	5.88E-08	3.98E-08	2.83E-08	1.30E-07
			1.81E-09	3.08E-08	2.09E-08	1.48E-08	6.84E-08
			1.86E-09	3.18E-08	2.15E-08	1.53E-08	7.05E-08
			1.92E-09	3.28E-08	2.22E-08	1.58E-08	7.27E-08
			1.99E-09	3.39E-08	2.30E-08	1.63E-08	7.52E-08
			2.07E-09	3.53E-08	2.39E-08	1.70E-08	7.83E-08
			2.14E-09	3.64E-08	2.47E-08	1.75E-08	8.08E-08
			2.20E-09	3.76E-08	2.55E-08	1.81E-08	8.33E-08
			2.27E-09	3.88E-08	2.63E-08	1.87E-08	8.60E-08
			2.35E-09	4.00E-08	2.71E-08	1.93E-08	8.87E-08
			2.42E-09	4.12E-08	2.80E-08	1.99E-08	9.15E-08
			2.50E-09	4.25E-08	2.88E-08	2.05E-08	9.44E-08
			2.57E-09	4.39E-08	2.97E-08	2.11E-08	9.73E-08
			2.65E-09	4.52E-08	3.07E-08	2.18E-08	1.00E-07
			2.73E-09	4.66E-08	3.16E-08	2.25E-08	1.03E-07
			2.81E-09	4.80E-08	3.25E-08	2.31E-08	1.06E-07
			2.90E-09	4.94E-08	3.35E-08	2.38E-08	1.10E-07
			2.98E-09	5.08E-08	3.44E-08	2.45E-08	1.13E-07
			3.06E-09	5.22E-08	3.54E-08	2.51E-08	1.16E-07
			3.14E-09	5.35E-08	3.63E-08	2.58E-08	1.19E-07
			3.22E-09	5.49E-08	3.72E-08	2.65E-08	1.22E-07
			1.74E-09	2.96E-08	2.01E-08	1.43E-08	6.56E-08
			1.79E-09	3.05E-08	2.06E-08	1.47E-08	6.76E-08
			1.85E-09	3.15E-08	2.13E-08	1.52E-08	6.98E-08
			1.92E-09	3.27E-08	2.22E-08	1.57E-08	7.25E-08
			1.97E-09	3.37E-08	2.28E-08	1.62E-08	7.47E-08
			2.03E-09	3.47E-08	2.35E-08	1.67E-08	7.69E-08
			2.09E-09	3.57E-08	2.42E-08	1.72E-08	7.92E-08
			2.16E-09	3.68E-08	2.49E-08	1.77E-08	8.16E-08
			2.22E-09	3.79E-08	2.57E-08	1.82E-08	8.40E-08
			2.29E-09	3.90E-08	2.64E-08	1.88E-08	8.65E-08
			2.36E-09	4.02E-08	2.72E-08	1.93E-08	8.91E-08
			2.42E-09	4.13E-08	2.80E-08	1.99E-08	9.17E-08
			2.49E-09	4.25E-08	2.88E-08	2.05E-08	9.44E-08
			2.57E-09	4.38E-08	2.97E-08	2.11E-08	9.71E-08
			2.64E-09	4.50E-08	3.05E-08	2.17E-08	9.98E-08
			2.71E-09	4.63E-08	3.14E-08	2.23E-08	1.03E-07
			2.79E-09	4.75E-08	3.22E-08	2.29E-08	1.05E-07
			2.87E-09	4.89E-08	3.31E-08	2.35E-08	1.08E-07
			2.94E-09	5.02E-08	3.40E-08	2.42E-08	1.11E-07
			3.02E-09	5.16E-08	3.50E-08	2.48E-08	1.14E-07
			1.66E-09	2.84E-08	1.92E-08	1.37E-08	6.29E-08
			1.71E-09	2.91E-08	1.98E-08	1.40E-08	6.47E-08
			1.76E-09	3.01E-08	2.04E-08	1.45E-08	6.67E-08
			1.83E-09	3.12E-08	2.11E-08	1.50E-08	6.92E-08
			1.88E-09	3.21E-08	2.17E-08	1.54E-08	7.11E-08
			1.93E-09	3.30E-08	2.23E-08	1.59E-08	7.31E-08
			1.99E-09	3.39E-08	2.30E-08	1.63E-08	7.52E-08
			2.04E-09	3.48E-08	2.36E-08	1.68E-08	7.73E-08
			2.10E-09	3.58E-08	2.43E-08	1.73E-08	7.95E-08
			2.16E-09	3.68E-08	2.50E-08	1.77E-08	8.17E-08
			2.22E-09	3.78E-08	2.57E-08	1.82E-08	8.40E-08
			2.28E-09	3.89E-08	2.64E-08	1.87E-08	8.63E-08
			2.34E-09	4.00E-08	2.71E-08	1.93E-08	8.87E-08
			2.41E-09	4.11E-08	2.78E-08	1.98E-08	9.11E-08
			2.48E-09	4.22E-08	2.86E-08	2.03E-08	9.36E-08
			2.54E-09	4.34E-08	2.94E-08	2.09E-08	9.62E-08
			2.62E-09	4.46E-08	3.02E-08	2.15E-08	9.89E-08
			2.69E-09	4.58E-08	3.11E-08	2.21E-08	1.02E-07
			2.77E-09	4.72E-08	3.20E-08	2.27E-08	1.05E-07
			1.59E-09	2.72E-08	1.84E-08	1.31E-08	6.02E-08
			1.64E-09	2.80E-08	1.90E-08	1.35E-08	6.20E-08
			1.69E-09	2.89E-08	1.96E-08	1.39E-08	6.40E-08
			1.74E-09	2.97E-08	2.01E-08	1.43E-08	6.59E-08
			1.79E-09	3.05E-08	2.07E-08	1.47E-08	6.76E-08
			1.84E-09	3.13E-08	2.12E-08	1.51E-08	6.94E-08
			1.88E-09	3.21E-08	2.18E-08	1.55E-08	7.12E-08
			1.93E-09	3.30E-08	2.23E-08	1.59E-08	7.31E-08
			1.98E-09	3.38E-08	2.29E-08	1.63E-08	7.51E-08
			2.04E-09	3.47E-08	2.35E-08	1.67E-08	7.70E-08
			2.09E-09	3.56E-08	2.42E-08	1.72E-08	7.91E-08

			3.08E-10	6.02E-09	3.84E-09	2.69E-09	1.29E-08
			3.18E-10	6.23E-09	3.97E-09	2.78E-09	1.33E-08
			3.30E-10	6.45E-09	4.11E-09	2.88E-09	1.38E-08
			3.41E-10	6.68E-09	4.26E-09	2.99E-09	1.43E-08
			3.54E-10	6.93E-09	4.41E-09	3.09E-09	1.48E-08
			3.66E-10	7.18E-09	4.57E-09	3.20E-09	1.53E-08
			3.83E-10	7.49E-09	4.77E-09	3.35E-09	1.60E-08
			3.98E-10	7.80E-09	4.97E-09	3.48E-09	1.66E-08
			4.14E-10	8.10E-09	5.16E-09	3.62E-09	1.73E-08
			4.31E-10	8.44E-09	5.38E-09	3.77E-09	1.80E-08
			4.47E-10	8.76E-09	5.58E-09	3.91E-09	1.87E-08
			4.64E-10	9.09E-09	5.79E-09	4.06E-09	1.94E-08
			4.81E-10	9.43E-09	6.01E-09	4.21E-09	2.01E-08
			4.99E-10	9.78E-09	6.23E-09	4.37E-09	2.09E-08
			5.18E-10	1.01E-08	6.46E-09	4.53E-09	2.16E-08
			5.36E-10	1.05E-08	6.69E-09	4.69E-09	2.24E-08
			5.55E-10	1.09E-08	6.92E-09	4.85E-09	2.32E-08
			5.73E-10	1.12E-08	7.15E-09	5.01E-09	2.40E-08
			5.91E-10	1

1818	258693.6	4084900	2.145E-09	3.66E-08	2.48E-08	1.76E-08	8.11E-08
1819	258718.6	4084900	2.202E-09	3.75E-08	2.55E-08	1.81E-08	8.33E-08
1820	258743.6	4084900	2.261E-09	3.85E-08	2.61E-08	1.86E-08	8.55E-08
1821	258768.6	4084900	2.322E-09	3.96E-08	2.68E-08	1.91E-08	8.78E-08
1822	258793.6	4084900	2.386E-09	4.07E-08	2.76E-08	1.96E-08	9.03E-08
1823	258818.6	4084900	2.454E-09	4.18E-08	2.84E-08	2.02E-08	9.28E-08
1824	258843.6	4084900	2.525E-09	4.31E-08	2.92E-08	2.07E-08	9.55E-08
1825	258868.6	4084900	2.601E-09	4.44E-08	3.01E-08	2.14E-08	9.84E-08
1826	258418.6	4084925	1.531E-09	2.61E-08	1.77E-08	1.26E-08	5.79E-08
1827	258443.6	4084925	1.573E-09	2.68E-08	1.82E-08	1.29E-08	5.95E-08
1828	258468.6	4084925	1.617E-09	2.76E-08	1.87E-08	1.33E-08	6.11E-08
1829	258493.6	4084925	1.657E-09	2.82E-08	1.92E-08	1.36E-08	6.27E-08
1830	258518.6	4084925	1.698E-09	2.89E-08	1.96E-08	1.39E-08	6.42E-08
1831	258543.6	4084925	1.74E-09	2.97E-08	2.01E-08	1.43E-08	6.58E-08
1832	258568.6	4084925	1.783E-09	3.04E-08	2.06E-08	1.46E-08	6.74E-08
1833	258593.6	4084925	1.827E-09	3.12E-08	2.11E-08	1.50E-08	6.91E-08
1834	258618.6	4084925	1.872E-09	3.19E-08	2.16E-08	1.54E-08	7.08E-08
1835	258643.6	4084925	1.919E-09	3.27E-08	2.22E-08	1.58E-08	7.26E-08
1836	258668.6	4084925	1.967E-09	3.35E-08	2.27E-08	1.62E-08	7.44E-08
1837	258693.6	4084925	2.016E-09	3.44E-08	2.33E-08	1.66E-08	7.62E-08
1838	258718.6	4084925	2.068E-09	3.52E-08	2.39E-08	1.70E-08	7.82E-08
1839	258743.6	4084925	2.121E-09	3.62E-08	2.45E-08	1.74E-08	8.02E-08
1840	258768.6	4084925	2.178E-09	3.71E-08	2.52E-08	1.79E-08	8.24E-08
1841	258793.6	4084925	2.238E-09	3.82E-08	2.59E-08	1.84E-08	8.47E-08
1842	258818.6	4084925	2.303E-09	3.93E-08	2.66E-08	1.89E-08	8.71E-08
1843	258843.6	4084925	2.372E-09	4.04E-08	2.74E-08	1.95E-08	8.97E-08
1844	258418.6	4084950	1.469E-09	2.51E-08	1.70E-08	1.21E-08	5.56E-08
1845	258443.6	4084950	1.504E-09	2.56E-08	1.74E-08	1.24E-08	5.69E-08
1846	258468.6	4084950	1.538E-09	2.62E-08	1.78E-08	1.26E-08	5.82E-08
1847	258493.6	4084950	1.574E-09	2.68E-08	1.82E-08	1.29E-08	5.95E-08
1848	258518.6	4084950	1.611E-09	2.75E-08	1.86E-08	1.32E-08	6.09E-08
1849	258543.6	4084950	1.648E-09	2.81E-08	1.90E-08	1.35E-08	6.23E-08
1850	258568.6	4084950	1.686E-09	2.87E-08	1.95E-08	1.38E-08	6.38E-08
1851	258593.6	4084950	1.725E-09	2.94E-08	1.99E-08	1.42E-08	6.52E-08
1852	258618.6	4084950	1.765E-09	3.01E-08	2.04E-08	1.45E-08	6.68E-08
1853	258643.6	4084950	1.806E-09	3.08E-08	2.09E-08	1.48E-08	6.83E-08
1854	258668.6	4084950	1.849E-09	3.15E-08	2.14E-08	1.52E-08	6.99E-08
1855	258693.6	4084950	1.894E-09	3.23E-08	2.19E-08	1.56E-08	7.16E-08
1856	258718.6	4084950	1.941E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08
1857	258743.6	4084950	1.99E-09	3.39E-08	2.30E-08	1.63E-08	7.53E-08
1858	258768.6	4084950	2.042E-09	3.48E-08	2.36E-08	1.68E-08	7.72E-08
1859	258793.6	4084950	2.099E-09	3.58E-08	2.43E-08	1.72E-08	7.94E-08
1860	258818.6	4084950	2.159E-09	3.68E-08	2.50E-08	1.77E-08	8.17E-08
1861	258843.6	4084950	2.225E-09	3.79E-08	2.57E-08	1.83E-08	8.41E-08
1862	258418.6	4084975	1.401E-09	2.39E-08	1.62E-08	1.15E-08	5.30E-08
1863	258443.6	4084975	1.431E-09	2.44E-08	1.65E-08	1.18E-08	5.41E-08
1864	258468.6	4084975	1.462E-09	2.49E-08	1.69E-08	1.20E-08	5.53E-08
1865	258493.6	4084975	1.494E-09	2.55E-08	1.73E-08	1.23E-08	5.65E-08
1866	258518.6	4084975	1.526E-09	2.60E-08	1.76E-08	1.25E-08	5.77E-08
1867	258543.6	4084975	1.559E-09	2.66E-08	1.80E-08	1.28E-08	5.90E-08
1868	258568.6	4084975	1.593E-09	2.72E-08	1.84E-08	1.31E-08	6.02E-08
1869	258593.6	4084975	1.628E-09	2.77E-08	1.88E-08	1.34E-08	6.16E-08
1870	258618.6	4084975	1.663E-09	2.84E-08	1.92E-08	1.37E-08	6.29E-08
1871	258643.6	4084975	1.7E-09	2.90E-08	1.96E-08	1.40E-08	6.43E-08
1872	258668.6	4084975	1.738E-09	2.96E-08	2.01E-08	1.43E-08	6.57E-08
1873	258693.6	4084975	1.778E-09	3.03E-08	2.06E-08	1.46E-08	6.73E-08
1874	258718.6	4084975	1.821E-09	3.10E-08	2.10E-08	1.50E-08	6.89E-08
1875	258743.6	4084975	1.866E-09	3.18E-08	2.16E-08	1.53E-08	7.06E-08
1876	258768.6	4084975	1.914E-09	3.26E-08	2.21E-08	1.57E-08	7.24E-08
1877	258793.6	4084975	1.966E-09	3.35E-08	2.27E-08	1.61E-08	7.44E-08
1878	258818.6	4084975	2.022E-09	3.45E-08	2.34E-08	1.66E-08	7.65E-08
1879	258843.6	4084975	2.083E-09	3.55E-08	2.41E-08	1.71E-08	7.88E-08
1880	258418.6	4085000	1.334E-09	2.28E-08	1.54E-08	1.10E-08	5.05E-08
1881	258443.6	4085000	1.361E-09	2.32E-08	1.57E-08	1.12E-08	5.15E-08
1882	258468.6	4085000	1.389E-09	2.37E-08	1.61E-08	1.14E-08	5.25E-08
1883	258493.6	4085000	1.417E-09	2.42E-08	1.64E-08	1.16E-08	5.36E-08
1884	258518.6	4085000	1.445E-09	2.46E-08	1.67E-08	1.19E-08	5.47E-08
1885	258543.6	4085000	1.475E-09	2.51E-08	1.70E-08	1.21E-08	5.58E-08
1886	258568.6	4085000	1.504E-09	2.56E-08	1.74E-08	1.24E-08	5.69E-08
1887	258593.6	4085000	1.535E-09	2.62E-08	1.77E-08	1.26E-08	5.80E-08
1888	258618.6	4085000	1.566E-09	2.67E-08	1.81E-08	1.29E-08	5.92E-08
1889	258643.6	4085000	1.599E-09	2.73E-08	1.85E-08	1.31E-08	6.05E-08
1890	258668.6	4085000	1.633E-09	2.78E-08	1.89E-08	1.34E-08	6.18E-08
1891	258693.6	4085000	1.67E-09	2.85E-08	1.93E-08	1.37E-08	6.31E-08
1892	258718.6	4085000	1.708E-09	2.91E-08	1.97E-08	1.40E-08	6.46E-08
1893	258743.6	4085000	1.749E-09	2.98E-08	2.02E-08	1.44E-08	6.61E-08
1894	258768.6	4085000	1.792E-09	3.06E-08	2.07E-08	1.47E-08	6.78E-08
1895	258793.6	4085000	1.839E-09	3.14E-08	2.13E-08	1.51E-08	6.96E-08
1896	258818.6	4085000	1.89E-09	3.22E-08	2.18E-08	1.55E-08	7.15E-08
1897	258843.6	4085000	1.945E-09	3.32E-08	2.25E-08	1.60E-08	7.36E-08
1898	258418.6	4085025	1.27E-09	2.17E-08	1.47E-08	1.04E-08	4.80E-08
1899	258443.6	4085025	1.294E-09	2.21E-08	1.50E-08	1.06E-08	4.89E-08
1900	258468.6	4085025	1.318E-09	2.25E-08	1.52E-08	1.08E-08	4.99E-08
1901	258493.6	4085025	1.343E-09	2.29E-08	1.55E-08	1.10E-08	5.08E-08
1902	258518.6	4085025	1.368E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08
1903	258543.6	4085025	1.394E-09	2.38E-08	1.61E-08	1.14E-08	5.27E-08
1904	258568.6	4085025	1.42E-09	2.42E-08	1.64E-08	1.17E-08	5.37E-08
1905	258593.6	4085025	1.447E-09	2.47E-08	1.67E-08	1.19E-08	5.47E-08
1906	258618.6	4085025	1.475E-09	2.51E-08	1.70E-08	1.21E-08	5.58E-08
1907	258643.6	4085025	1.504E-09	2.56E-08	1.74E-08	1.24E-08	5.69E-08
1908	258668.6	4085025	1.535E-09	2.62E-08	1.77E-08	1.26E-08	5.80E-08
1909	258693.6	4085025	1.567E-09	2.67E-08	1.81E-08	1.29E-08	5.93E-08
1910	258718.6	4085025	1.601E-09	2.73E-08	1.85E-08	1.32E-08	6.06E-08
1911	258743.6	4085025	1.638E-09	2.79E-08	1.89E-08	1.35E-08	6.19E-08
1912	258768.6	4085025	1.677E-09	2.86E-08	1.94E-08	1.38E-08	6.34E-08
1913	258793.6	4085025	1.719E-09	2.93E-08	1.99E-08	1.41E-08	6.50E-08
1914	258818.6	4085025	1.764E-09	3.01E-08	2.04E-08	1.45E-08	6.67E-08
1915	258843.6	4085025	1.813E-09	3.09E-08	2.10E-08	1.49E-08	6.86E-08
1916	258418.6	4085050	1.208E-09	2.06E-08	1.40E-08	9.93E-09	4.57E-08
1917	258443.6	4085050	1.23E-09	2.10E-08	1.42E-08	1.01E-08	4.65E-08
1918	258468.6	4085050	1.251E-09	2.13E-08	1.45E-08	1.03E-08	4.73E-08
1919	258493.6	4085050	1.273E-09	2.17E-08	1.47E-08	1.05E-08	4.81E-08
1920	258518.6	4085050	1.295E-09	2.21E-08	1.50E-08	1.06E-08	4.90E-08
1921	258543.6	4085050	1.317E-09	2.25E-08	1.52E-08	1.08E-08	4.98E-08
1922	258568.6	4085050	1.341E-09	2.29E-08	1.55E-08	1.10E-08	5.07E-08
1923	258593.6	4085050	1.364E-09	2.33E-08	1.58E-08	1.12E-08	5.16E-08
1924	258618.6	4085050	1.389E-09	2.37E-08	1.61E-08	1.14E-08	5.25E-08
1925	258643.6	4085050	1.415E-09	2.41E-08	1.64E-08	1.16E-08	5.35E-08
1926	258668.6	4085050	1.442E-09	2.46E-08	1.67E-08	1.18E-08	5.45E-08
1927	258693.6	4085050	1.471E-09	2.51E-08	1.70E-08	1.21E-08	5.56E-08
1928	258718.6	4085050	1.501E-09	2.56E-08	1.73E-08	1.23E-08	5.68E-08
1929	258743.6	4085050	1.533E-09	2.61E-08	1.77E-08	1.26E-08	5.80E-08
1930	258768.6	4085050	1.567E-09	2.67E-08	1.81E-08	1.29E-08	5.93E-08
1931	258793.6	4085050	1.604E-09	2.73E-08	1.85E-08	1.32E-08	6.07E-08
1932	258818.6	4085050	1.643E-09	2.80E-08	1.90E-08	1.35E-08	6.22E-08
1933	258418.6	4085075	1.149E-09	1.96E-08	1.33E-08	9.44E-09	4.35E-08
1934	258443.6	4085075	1.168E-09	1.99E-08	1.35E-08	9.59E-09	4.42E-08
1935	258468.6	4085075	1.187E-09	2.02E-08	1.37E-08	9.75E-09	4.49E-08
1936	258493.6	4085075	1.206E-09	2.06E-08	1.39E-08	9.90E-09	4.56E-08
1937	258518.6	4085075	1.225E-09	2.09E-08	1.42E-08	1.01E-08	4.63E-08
1938	258543.6	4085075	1.245E-09	2.12E-08	1.44E-08	1.02E-08	4.71E-08
1939	258568.6	4085075	1.265E-09	2.16E-08	1.46E-08	1.04E-08	4.79E-08
1940	258593.6	4085075	1.286E-09	2.19E-08	1.49E-08	1.06E-08	4.87E-08
1941	258618.6	4085075	1.308E-09	2.23E-08	1.51E-08	1.07E-08	4.95E-08
1942	258643.6	4085075	1.331E-09	2.27E-08	1.54E-08	1.09E-08	5.03E-08
1943	258668.6	4085075	1.355E-09	2.31E-08	1.57E-08	1.11E-08	5.12E-08
1944	258693.6	4085075	1.38E-09	2.35E-08	1.59E-08	1.13E-08	5.22E-08
1945	258718.6	4085075	1.406E-09	2.40E-08	1.63E-08	1.16E-08	5.32E-08
1946	258743.6	4085075	1.434E-09	2.44E-08	1.66E-08	1.18E-08	5.42E-08
1947	258768.6	4085075	1.464E-09	2.50E-08	1.69E-08	1.20E-08	5.54E-08

			2.15E-09	3.66E-08	2.48E-08	1.76E-08	8.11E-08
			2.20E-09	3.75E-08	2.55E-08	1.81E-08	8.33E-08
			2.26E-09	3.85E-08	2.61E-08	1.86E-08	8.55E-08
			2.32E-09	3.96E-08	2.68E-08	1.91E-08	8.78E-08
			2.39E-09	4.07E-08	2.76E-08	1.96E-08	9.03E-08
			2.45E-09	4.18E-08	2.84E-08	2.02E-08	9.28E-08
			2.53E-09	4.31E-08	2.92E-08	2.07E-08	9.55E-08
			2.60E-09	4.44E-08	3.01E-08	2.14E-08	9.84E-08
			1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.79E-08
			1.57E-09	2.68E-08	1.82E-08	1.29E-08	5.95E-08
			1.62E-09	2.76E-08	1.87E-08	1.33E-08	6.11E-08
			1.66E-09	2.82E-08	1.92E-08	1.36E-08	6.27E-08
			1.70E-09	2.89E-08	1.96E-08	1.39E-08	6.42E-08
			1.74E-09	2.97E-08	2.01E-08	1.43E-08	6.58E-08
			1.78E-09	3.04E-08	2.06E-08	1.46E-08	6.74E-08
			1.83E-09	3.12E-08	2.11E-08	1.50E-08	6.91E-08
			1.87E-09	3.19E-08	2.16E-08	1.54E-08	7.08E-08
			1.92E-09	3.27E-08	2.22E-08	1.58E-08	7.26E-08
			1.97E-09	3.35E-08	2.27E-08	1.62E-08	7.44E-08
			2.02E-09	3.44E-08	2.33E-08	1.66E-08	7.62E-08
			2.07E-09	3.52E-08	2.39E-08	1.70E-08	7.82E-08
			2.12E-09	3.62E-08	2.45E-08	1.74E-08	8.02E-08
			2.18E-09	3.71E-08	2.52E-08	1.79E-08	8.24E-08
			2.24E-09	3.82E-08	2.59E-08	1.84E-08	8.47E-08
			2.30E-09	3.93E-08	2.66E-08	1.89E-08	8.71E-08
			2.37E-09	4.04E-08	2.74E-08	1.95E-08	8.97E-08
			1.47E-09	2.51E-08	1.70E-08	1.21E-08	5.56E-08
			1.50E-09	2.56E-08	1.74E-08	1.24E-08	5.69E-08
			1.54E-09	2.62E-08	1.78E-08	1.26E-08	5.82E-08
			1.57E-09	2.68E-08	1.82E-08	1.29E-08	5.95E-08
			1.61E-09	2.75E-08	1.86E-08	1.32E-08	6.09E-08
			1.65E-09	2.81E-08	1.90E-08	1.35E-08	6.23E-08
			1.69E-09	2.87E-08	1.95E-08	1.38E-08	6.38E-08
			1.73E-09	2.94E-08	1.99E-08	1.42E-08	6.52E-08
			1.77E-09	3.01E-08	2.04E-08	1.45E-08	6.68E-08
			1.81E-09	3.08E-08	2.09E-08	1.48E-08	6.83E-08
			1.85E-09	3.15E-08	2.14E-08	1.52E-08	6.99E-08
			1.89E-09	3.23E-08	2.19E-08	1.56E-08	7.16E-08
			1.94E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08
			1.99E-09	3.39E-08	2.30E-08	1.63E-08	7.53E-08
			2.04E-09	3.48E-08	2.36E-08	1.68E-08	7.72E-08
			2.10E-09	3.58E-08	2.43E-08	1.72E-08	7.94E-08
			2.16E-09	3.68E-08	2.50E-08	1.77E-08	8.17E-08
			2.22E-09	3.79E-08	2.57E-08	1.83E-08	8.41E-08
			1.40E-09	2.39E-08	1.62E-08	1.15E-08	5.30E-08
			1.43E-09	2.44E-08	1.65E-08	1.18E-08	5.41E-08
			1.46E-09	2.49E-08	1.69E-08	1.20E-08	5.53E-08
			1.49E-09	2.55E-08	1.73E-08	1.23E-08	5.65E-08
			1.53E-09	2.60E-08	1.76E-08	1.25E-08	5.77E-08
			1.56E-09	2.66E-08	1.80E-08	1.28E-08	5.90E-08
			1.59E-09	2.72E-08	1.84E-08	1.31E-08	6.02E-08
			1.63E-09	2.77E-08	1.88E-08	1.34E-08	6.16E-08
			1.66E-09	2.84E-08	1.92E-08	1.37E-08	6.29E-08
			1.70E-09	2.90E-08	1.96E-08	1.40E-08	6.43E-08
			1.74E-09	2.96E-08	2.01E-08	1.43E-08	6.57E-08
			1.78E-09	3.03E-08	2.06E-08	1.46E-08	6.73E-08
			1.82E-09	3.10E-08	2.10E-08	1.50E-08	6.89E-08
			1.87E-09	3.18E-08	2.16E-08	1.53E-08	7.06E-08
			1.91E-09	3.26E-08	2.21E-08	1.57E-08	7.24E-08
			1.97E-09	3.35E-08	2.27E-08	1.61E-08	7.44E-08
			2.02E-09	3.45E-08	2.34E-08	1.66E-08	7.65E-08
			2.08E-09	3.55E-08	2.41E-08	1.71E-08	7.88E-08
			1.33E-09	2.28E-08	1.54E-08	1.10E-08	5.05E-08
			1.36E-09	2.32E-08	1.57E-08	1.12E-08	5.15E-08
			1.39E-09	2.37E-08	1.61E-08	1.14E-08	5.25E-08
			1.42E-09	2.42E-08	1.64E-08	1.16E-08	5.36E-08
			1.45E-09	2.46E-08	1.67E-08	1.19E-08	5.47E-08
			1.47E-09	2.51E-08	1.70E-08	1.21E-08	5.58E-08
			1.50E-09	2.56E-08	1.74E-08	1.24E-08	5.69E-08
			1.53E-09	2.62E-08	1.77E-08	1.26E-08	5.80E-08
			1.57E-09	2.67E-08	1.81E-08	1.29E-08	5.92E-08
			1.60E-09	2.73E-08	1.85E-08	1.31E-08	6.05E-08
			1.63E-09	2.78E-08	1.89E-08	1.34E-08	6.18E-08
			1.67E-09	2.85E-08	1.93E-08	1.37E-08	6.31E-08
			1.71E-09	2.91E-08	1.97E-08	1.40E-08	6.46E-08
			1.75E-09	2.98E-08	2.02E-08	1.44E-08	6.61E-08
			1.79E-09	3.06E-08	2.07E-08	1.47E-08	6.78E-08
			1.84E-09	3.14E-08	2.13E-08	1.51E-08	6.96E-08
			1.89E-09	3.22E-08	2.18E-08	1.55E-08	7.15E-08
			1.95E-09	3.32E-08	2.25E-08	1.60E-08	7.36E-08
			1.27E-09	2.17E-08	1.47E-08	1.04E-08	4.80E-08
			1.29E-09	2.21E-08	1.50E-08	1.06E-08	4.89E-08
			1.32E-09	2.25E-08	1.52E-08	1.08E-08	4.99E-08
			1.34E-09	2.29E-08	1.55E-08	1.10E-08	5.08E-08
			1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08
			1.39E-09	2.38E-08	1.61E-08	1.14E-08	5.27E-08
			1.42E-09	2.42E-08	1.64E-08	1.17E-08	5.37E-08
			1.45E-09	2.47E-08	1.67E-08	1.19E-08	5.47E-08
			1.48E-09	2.51E-08	1.70E-08	1.21E-08	5.58E-08
			1.50E-09	2.56E-08	1.74E-08	1.24E-08	5.69E-08
			1.53E-09	2.62E-08	1.77E-08	1.26E-08	5.80E-08
			1.57E-09	2.67E-08	1.81E-08	1.29E-08	5.93E-08
			1.60E-09	2.73E-08	1.85E-08	1.32E-08	6.06E-08
			1.64E-09	2.79E-08	1.89E-08	1.35E-08	6.19E-08
			1.68E-09	2.86E-08	1.94E-08	1.38E-08	6.34E-08
			1.72E-09	2.93E-08	1.99E-08	1.41E-08	6.50E-08
			1.76E-09	3.01E-08	2.04E-08	1.45E-08	6.67E-08
			1.81E-09	3.09E-08	2.10E-08	1.49E-08	6.86E-08
			1.21E-09	2.06E-08	1.40E-08	9.93E-09	4.57E-08
			1.23E-09	2.10E-08	1.42E-08	1.01E-08	4.65E-08
			1.25E-09	2.13E-08	1.45E-08	1.03E-08	4.73E-08
			1.27E-09	2.17E-08	1.47E-08	1.05E-08	4.81E-08
			1.29E-09	2.21E-08	1.50E-08	1.06E-08	4.90E-08
			1.32E-09	2.25E-08	1.52E-08	1.08E-08	4.98E-08
			1.34E-09	2.29E-08	1.55E-08	1.10E-08	5.07E-08
			1.36E-09	2.33E-08	1.58E-08	1.12E-08	5.16E-08
			1.39E-09	2.37E-08	1.61E-08	1.14E-08	5.25E-08
			1.41E-09	2.41E-08	1.64E-08	1.16E-08	5.35E-08
			1.44E-09	2.46E-08	1.67E-08	1.18E-08	5.45E-08
			1.47E-09	2.51E-08	1.70E-08	1.21E-08	5.56E-08
			1.50E-09	2.56E-08	1.73E-08	1.23E-08	5.68E-08
			1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.80E-08
			1.57E-09	2.67E-08	1.81E-08	1.29E-08	5.93E-08
			1.60E-09	2.73E-08	1.85E-08	1.32E-08	6.07E-08
			1.64E-09	2.80E-08	1.90E-08	1.35E-08	6.22E-08
			1.15E-09	1.96E-08	1.33E-08	9.44E-09	4.35E-08
			1.17E-09	1.99E-08	1.35E-08	9.59E-09	4.42E-08
			1.19E-09	2.02E-08	1.37E-08	9.75E-09	4.49E-08
			1.21E-09	2.06E-08	1.39E-08	9.90E-09	4.56E-08
			1.23E-09	2.09E-08	1.42E-08	1.01E-08	4.63E-08
			1.25E-09	2.12E-08	1.44E-08	1.02E-08	4.71E-08
			1.27E-09	2.16E-08	1.46E-08	1.04E-08	4.79E-08
			1.29E-09	2.19E-08	1.49E-08	1.06E-08	4.87E-08
			1.31E-09	2.23E-08	1.51E-08	1.07E-08	4.95E-08
			1.33E-09	2.27E-08	1.54E-08	1.09E-08	5.03E-08
			1.35E-09	2.31E-08	1.57E-08	1.11E-08	5.12E-08
			1.38E-09	2.35E-08	1.59E-08	1.13E-08	5.22E-08
			1.41E-09	2.40E-08	1.63E-08	1.16E-08	5.32E-08
			1.43E-09	2.44E-08	1.66E-08	1.18E-08	5.42E-08
			1.46E-09	2.50E-08	1.69E-08	1.20E-08	5.54E-08

			3.26E-10	6.39E-09	4.07E-09	2.85E-09	1.36E-08
			3.35E-10	6.56E-09	4.18E-09	2.93E-09	1.40E-08
			3.44E-10	6.73E-09	4.29E-09	3.01E-09	1.44E-08
			3.53E-10	6.92E-09	4.41E-09	3.09E-09	1.48E-08
			3.63E-10	7.11E-09	4.53E-09	3.17E-09	1.52E-08
			3.73E-10	7.31E-09	4.66E-09	3.26E-09	1.56E-08
			3.84E-10	7.52E-09	4.79E-09	3.36E-09	1.61E-08
			3.96E-10	7.75E-09	4.94E-09	3.46E-09	1.65E-08
			2.33E-10	4.56E-09	2.90E-09	2.04E-09	9.73E-09
			2.39E-10	4.69E-09	2.99E-09	2.09E-09	1.00E-08
			2.46E-10	4.81E-09	3.07E-09	2.15E-09	1.03E-08
			2.52E-10	4.93E-09	3.14E-09	2.20E-09	1.05E-08
			2.58E-10	5.06E-09	3.22E-09	2.26E-09	1.08E-08
			2.65E-10	5.18E-09	3.30E-09	2.31E-09	1.11E-08
			2.71E-10	5.31E-09	3.38E-09	2.37E-09	1.13E-08
			2.78E-10	5.44E-09	3.47E-09	2.43E-09	1.16E-08
			2.85E-10	5.58E-09	3.55E-09	2.49E-09	1.19E-08
			2.92E-10	5.71E-09	3.64E-09	2.55E-09	1.22E-08
			2.99E-10	5

1948	258793.6	4085075	1.495E-09	2.55E-08	1.73E-08	1.23E-08	5.65E-08
1949	258818.6	4085075	1.529E-09	2.61E-08	1.77E-08	1.26E-08	5.78E-08
1950	258439.6	4083713	9.782E-10	1.67E-08	1.13E-08	8.04E-09	3.70E-08
1951	258464.6	4083713	9.837E-10	1.68E-08	1.14E-08	8.08E-09	3.72E-08
1952	258489.6	4083713	9.889E-10	1.69E-08	1.14E-08	8.12E-09	3.74E-08
1953	258514.6	4083713	9.942E-10	1.70E-08	1.15E-08	8.17E-09	3.76E-08
1954	258539.6	4083713	1.001E-09	1.71E-08	1.16E-08	8.23E-09	3.79E-08
1955	258564.6	4083713	1.007E-09	1.72E-08	1.16E-08	8.27E-09	3.81E-08
1956	258589.6	4083713	1.012E-09	1.73E-08	1.17E-08	8.31E-09	3.83E-08
1957	258614.6	4083713	1.017E-09	1.73E-08	1.18E-08	8.36E-09	3.85E-08
1958	258639.6	4083713	1.022E-09	1.74E-08	1.18E-08	8.40E-09	3.87E-08
1959	258664.6	4083713	1.028E-09	1.75E-08	1.19E-08	8.44E-09	3.89E-08
1960	258689.6	4083713	1.034E-09	1.76E-08	1.20E-08	8.50E-09	3.91E-08
1961	258714.6	4083713	1.043E-09	1.78E-08	1.21E-08	8.57E-09	3.94E-08
1962	258364.6	4083738	1.006E-09	1.72E-08	1.16E-08	8.26E-09	3.80E-08
1963	258389.6	4083738	1.014E-09	1.73E-08	1.17E-08	8.33E-09	3.83E-08
1964	258414.6	4083738	1.023E-09	1.74E-08	1.18E-08	8.40E-09	3.87E-08
1965	258439.6	4083738	1.031E-09	1.76E-08	1.19E-08	8.47E-09	3.90E-08
1966	258464.6	4083738	1.038E-09	1.77E-08	1.20E-08	8.52E-09	3.92E-08
1967	258489.6	4083738	1.044E-09	1.78E-08	1.21E-08	8.58E-09	3.95E-08
1968	258514.6	4083738	1.053E-09	1.80E-08	1.22E-08	8.65E-09	3.98E-08
1969	258539.6	4083738	1.059E-09	1.81E-08	1.22E-08	8.70E-09	4.01E-08
1970	258564.6	4083738	1.065E-09	1.82E-08	1.23E-08	8.75E-09	4.03E-08
1971	258589.6	4083738	1.071E-09	1.83E-08	1.24E-08	8.79E-09	4.05E-08
1972	258614.6	4083738	1.076E-09	1.83E-08	1.24E-08	8.84E-09	4.07E-08
1973	258639.6	4083738	1.082E-09	1.84E-08	1.25E-08	8.89E-09	4.09E-08
1974	258664.6	4083738	1.088E-09	1.85E-08	1.26E-08	8.93E-09	4.11E-08
1975	258689.6	4083738	1.097E-09	1.87E-08	1.27E-08	9.01E-09	4.15E-08
1976	258714.6	4083738	1.105E-09	1.88E-08	1.28E-08	9.08E-09	4.18E-08
1977	258364.6	4083763	1.059E-09	1.81E-08	1.22E-08	8.70E-09	4.00E-08
1978	258389.6	4083763	1.07E-09	1.82E-08	1.24E-08	8.79E-09	4.05E-08
1979	258414.6	4083763	1.08E-09	1.84E-08	1.25E-08	8.87E-09	4.08E-08
1980	258439.6	4083763	1.089E-09	1.86E-08	1.26E-08	8.94E-09	4.12E-08
1981	258464.6	4083763	1.096E-09	1.87E-08	1.27E-08	9.00E-09	4.15E-08
1982	258489.6	4083763	1.104E-09	1.88E-08	1.28E-08	9.07E-09	4.17E-08
1983	258514.6	4083763	1.114E-09	1.90E-08	1.29E-08	9.15E-09	4.21E-08
1984	258539.6	4083763	1.122E-09	1.91E-08	1.30E-08	9.21E-09	4.24E-08
1985	258564.6	4083763	1.128E-09	1.92E-08	1.30E-08	9.27E-09	4.27E-08
1986	258589.6	4083763	1.135E-09	1.93E-08	1.31E-08	9.32E-09	4.29E-08
1987	258614.6	4083763	1.141E-09	1.94E-08	1.32E-08	9.37E-09	4.31E-08
1988	258639.6	4083763	1.147E-09	1.96E-08	1.33E-08	9.42E-09	4.34E-08
1989	258664.6	4083763	1.157E-09	1.97E-08	1.34E-08	9.50E-09	4.38E-08
1990	258689.6	4083763	1.165E-09	1.99E-08	1.35E-08	9.57E-09	4.41E-08
1991	258714.6	4083763	1.172E-09	2.00E-08	1.36E-08	9.63E-09	4.43E-08
1992	258364.6	4083788	1.117E-09	1.90E-08	1.29E-08	9.18E-09	4.23E-08
1993	258389.6	4083788	1.13E-09	1.93E-08	1.31E-08	9.28E-09	4.27E-08
1994	258414.6	4083788	1.14E-09	1.94E-08	1.32E-08	9.37E-09	4.31E-08
1995	258439.6	4083788	1.15E-09	1.96E-08	1.33E-08	9.45E-09	4.35E-08
1996	258464.6	4083788	1.16E-09	1.98E-08	1.34E-08	9.53E-09	4.39E-08
1997	258489.6	4083788	1.171E-09	2.00E-08	1.35E-08	9.62E-09	4.43E-08
1998	258514.6	4083788	1.182E-09	2.01E-08	1.37E-08	9.70E-09	4.47E-08
1999	258539.6	4083788	1.19E-09	2.03E-08	1.38E-08	9.77E-09	4.50E-08
2000	258564.6	4083788	1.198E-09	2.04E-08	1.38E-08	9.84E-09	4.53E-08
2001	258589.6	4083788	1.206E-09	2.06E-08	1.39E-08	9.91E-09	4.56E-08
2002	258614.6	4083788	1.216E-09	2.07E-08	1.40E-08	9.98E-09	4.60E-08
2003	258639.6	4083788	1.223E-09	2.09E-08	1.41E-08	1.00E-08	4.63E-08
2004	258664.6	4083788	1.232E-09	2.10E-08	1.42E-08	1.01E-08	4.66E-08
2005	258689.6	4083788	1.24E-09	2.11E-08	1.43E-08	1.02E-08	4.69E-08
2006	258714.6	4083788	1.247E-09	2.13E-08	1.44E-08	1.02E-08	4.72E-08
2007	258364.6	4083813	1.179E-09	2.01E-08	1.36E-08	9.68E-09	4.46E-08
2008	258389.6	4083813	1.192E-09	2.03E-08	1.38E-08	9.79E-09	4.51E-08
2009	258414.6	4083813	1.205E-09	2.05E-08	1.39E-08	9.90E-09	4.56E-08
2010	258439.6	4083813	1.217E-09	2.07E-08	1.41E-08	9.99E-09	4.60E-08
2011	258464.6	4083813	1.229E-09	2.10E-08	1.42E-08	1.01E-08	4.65E-08
2012	258489.6	4083813	1.244E-09	2.12E-08	1.44E-08	1.02E-08	4.70E-08
2013	258514.6	4083813	1.254E-09	2.14E-08	1.45E-08	1.03E-08	4.74E-08
2014	258539.6	4083813	1.264E-09	2.16E-08	1.46E-08	1.04E-08	4.78E-08
2015	258564.6	4083813	1.274E-09	2.17E-08	1.47E-08	1.05E-08	4.82E-08
2016	258589.6	4083813	1.285E-09	2.19E-08	1.48E-08	1.06E-08	4.86E-08
2017	258614.6	4083813	1.297E-09	2.21E-08	1.50E-08	1.07E-08	4.91E-08
2018	258639.6	4083813	1.306E-09	2.23E-08	1.51E-08	1.07E-08	4.94E-08
2019	258664.6	4083813	1.314E-09	2.24E-08	1.52E-08	1.08E-08	4.97E-08
2020	258689.6	4083813	1.322E-09	2.25E-08	1.53E-08	1.09E-08	5.00E-08
2021	258714.6	4083813	1.332E-09	2.27E-08	1.54E-08	1.09E-08	5.04E-08
2022	258364.6	4083838	1.242E-09	2.12E-08	1.44E-08	1.02E-08	4.70E-08
2023	258389.6	4083838	1.258E-09	2.15E-08	1.45E-08	1.03E-08	4.76E-08
2024	258414.6	4083838	1.273E-09	2.17E-08	1.47E-08	1.05E-08	4.82E-08
2025	258439.6	4083838	1.288E-09	2.20E-08	1.49E-08	1.06E-08	4.87E-08
2026	258464.6	4083838	1.304E-09	2.22E-08	1.51E-08	1.07E-08	4.93E-08
2027	258489.6	4083838	1.321E-09	2.25E-08	1.53E-08	1.08E-08	4.99E-08
2028	258514.6	4083838	1.333E-09	2.27E-08	1.54E-08	1.10E-08	5.04E-08
2029	258539.6	4083838	1.346E-09	2.29E-08	1.56E-08	1.11E-08	5.09E-08
2030	258564.6	4083838	1.358E-09	2.32E-08	1.57E-08	1.12E-08	5.14E-08
2031	258589.6	4083838	1.371E-09	2.34E-08	1.59E-08	1.13E-08	5.19E-08
2032	258614.6	4083838	1.385E-09	2.36E-08	1.60E-08	1.14E-08	5.24E-08
2033	258639.6	4083838	1.397E-09	2.38E-08	1.61E-08	1.15E-08	5.28E-08
2034	258664.6	4083838	1.407E-09	2.40E-08	1.63E-08	1.16E-08	5.32E-08
2035	258689.6	4083838	1.416E-09	2.41E-08	1.64E-08	1.16E-08	5.36E-08
2036	258714.6	4083838	1.428E-09	2.43E-08	1.65E-08	1.17E-08	5.40E-08
2037	258364.6	4083863	1.309E-09	2.23E-08	1.51E-08	1.08E-08	4.95E-08
2038	258389.6	4083863	1.328E-09	2.26E-08	1.53E-08	1.09E-08	5.02E-08
2039	258414.6	4083863	1.346E-09	2.29E-08	1.56E-08	1.11E-08	5.09E-08
2040	258439.6	4083863	1.366E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08
2041	258464.6	4083863	1.387E-09	2.36E-08	1.60E-08	1.14E-08	5.24E-08
2042	258489.6	4083863	1.403E-09	2.39E-08	1.62E-08	1.15E-08	5.31E-08
2043	258514.6	4083863	1.419E-09	2.42E-08	1.64E-08	1.17E-08	5.37E-08
2044	258539.6	4083863	1.434E-09	2.44E-08	1.66E-08	1.18E-08	5.42E-08
2045	258564.6	4083863	1.452E-09	2.48E-08	1.68E-08	1.19E-08	5.49E-08
2046	258589.6	4083863	1.469E-09	2.50E-08	1.70E-08	1.21E-08	5.56E-08
2047	258614.6	4083863	1.484E-09	2.53E-08	1.71E-08	1.22E-08	5.61E-08
2048	258639.6	4083863	1.502E-09	2.56E-08	1.74E-08	1.23E-08	5.68E-08
2049	258664.6	4083863	1.514E-09	2.58E-08	1.75E-08	1.24E-08	5.73E-08
2050	258689.6	4083863	1.525E-09	2.60E-08	1.76E-08	1.25E-08	5.77E-08
2051	258714.6	4083863	1.536E-09	2.62E-08	1.78E-08	1.26E-08	5.81E-08
2052	258364.6	4083888	1.378E-09	2.35E-08	1.59E-08	1.13E-08	5.21E-08
2053	258389.6	4083888	1.401E-09	2.39E-08	1.62E-08	1.15E-08	5.30E-08
2054	258414.6	4083888	1.422E-09	2.43E-08	1.64E-08	1.17E-08	5.38E-08
2055	258439.6	4083888	1.446E-09	2.47E-08	1.67E-08	1.19E-08	5.47E-08
2056	258464.6	4083888	1.471E-09	2.51E-08	1.70E-08	1.21E-08	5.56E-08
2057	258489.6	4083888	1.491E-09	2.54E-08	1.72E-08	1.23E-08	5.64E-08
2058	258514.6	4083888	1.511E-09	2.58E-08	1.75E-08	1.24E-08	5.72E-08
2059	258539.6	4083888	1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.79E-08
2060	258564.6	4083888	1.552E-09	2.65E-08	1.79E-08	1.27E-08	5.87E-08
2061	258589.6	4083888	1.573E-09	2.68E-08	1.82E-08	1.29E-08	5.95E-08
2062	258614.6	4083888	1.591E-09	2.71E-08	1.84E-08	1.31E-08	6.02E-08
2063	258639.6	4083888	1.613E-09	2.75E-08	1.86E-08	1.33E-08	6.10E-08
2064	258664.6	4083888	1.628E-09	2.78E-08	1.88E-08	1.34E-08	6.16E-08
2065	258689.6	4083888	1.642E-09	2.80E-08	1.90E-08	1.35E-08	6.21E-08
2066	258714.6	4083888	1.655E-09	2.82E-08	1.91E-08	1.36E-08	6.26E-08
2067	258364.6	4083913	1.45E-09	2.47E-08	1.68E-08	1.19E-08	5.48E-08
2068	258389.6	4083913	1.476E-09	2.52E-08	1.71E-08	1.21E-08	5.58E-08
2069	258414.6	4083913	1.502E-09	2.56E-08	1.74E-08	1.23E-08	5.68E-08
2070	258439.6	4083913	1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.79E-08
2071	258464.6	4083913	1.56E-09	2.66E-08	1.80E-08	1.28E-08	5.90E-08
2072	258489.6	4083913	1.585E-09	2.70E-08	1.83E-08	1.30E-08	5.99E-08
2073	258514.6	4083913	1.609E-09	2.74E-08	1.86E-08	1.32E-08	6.09E-08
2074	258539.6	4083913	1.633E-09	2.78E-08	1.89E-08	1.34E-08	6.18E-08
2075	258564.6	4083913	1.66E-09	2.83E-08	1.92E-08	1.36E-08	6.28E-08
2076	258589.6	4083913	1.686E-09	2.88E-08	1.95E-08	1.39E-08	6.38E-08
2077	258614.6	4083913	1.709E-09	2.91E-08	1.98E-08	1.40E-08	6.46E-08

1.50E-09	2.55E-08	1.73E-08	1.23E-08	5.65E-08
1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.78E-08
9.78E-10	1.67E-08	1.13E-08	8.04E-09	3.70E-08
9.84E-10	1.68E-08	1.14E-08	8.08E-09	3.72E-08
9.89E-10	1.69E-08	1.14E-08	8.12E-09	3.74E-08
9.94E-10	1.70E-08	1.15E-08	8.17E-09	3.76E-08
1.00E-09	1.71E-08	1.16E-08	8.23E-09	3.79E-08
1.01E-09	1.72E-08	1.16E-08	8.27E-09	3.81E-08
1.01E-09	1.73E-08	1.17E-08	8.31E-09	3.83E-08
1.02E-09	1.73E-08	1.18E-08	8.36E-09	3.85E-08
1.02E-09	1.74E-08	1.18E-08	8.40E-09	3.87E-08
1.03E-09	1.75E-08	1.19E-08	8.44E-09	3.89E-08
1.03E-09	1.76E-08	1.20E-08	8.50E-09	3.91E-08
1.04E-09	1.78E-08	1.21E-08	8.57E-09	3.94E-08
1.01E-09	1.72E-08	1.16E-08	8.26E-09	3.80E-08
1.01E-09	1.73E-08	1.17E-08	8.33E-09	3.83E-08
1.02E-09	1.74E-08	1.18E-08	8.40E-09	3.87E-08
1.03E-09	1.76E-08	1.19E-08	8.47E-09	3.90E-08
1.04E-09	1.77E-08	1.20E-08	8.52E-09	3.92E-08
1.04E-09	1.78E-08	1.21E-08	8.58E-09	3.95E-08
1.05E-09	1.80E-08	1.22E-08	8.65E-09	3.98E-08
1.06E-09	1.81E-08	1.22E-08	8.70E-09	4.01E-08
1.07E-09	1.82E-08	1.23E-08	8.75E-09	4.03E-08
1.07E-09	1.83E-08	1.24E-08	8.79E-09	4.05E-08
1.08E-09	1.83E-08	1.24E-08	8.84E-09	4.07E-08
1.08E-09	1.84E-08	1.25E-08	8.89E-09	4.09E-08
1.09E-09	1.85E-08	1.26E-08	8.93E-09	4.11E-08
1.10E-09	1.87E-08	1.27E-08	9.01E-09	4.15E-08
1.11E-09	1.88E-08	1.28E-08	9.08E-09	4.18E-08
1.06E-09	1.81E-08	1.22E-08	8.70E-09	4.00E-08
1.07E-09	1.82E-08	1.24E-08	8.79E-09	4.05E-08
1.08E-09	1.84E-08	1.25E-08	8.87E-09	4.08E-08
1.09E-09	1.86E-08	1.26E-08	8.94E-09	4.12E-08
1.10E-09	1.87E-08	1.27E-08	9.00E-09	4.15E-08
1.10E-09	1.88E-08	1.28E-08	9.07E-09	4.17E-08
1.11E-09	1.90E-08	1.29E-08	9.15E-09	4.21E-08
1.12E-09	1.91E-08	1.30E-08	9.21E-09	4.24E-08
1.13E-09	1.92E-08	1.30E-08	9.27E-09	4.27E-08
1.13E-09	1.93E-08	1.31E-08	9.32E-09	4.29E-08
1.14E-09	1.94E-08	1.32E-08	9.37E-09	4.31E-08
1.15E-09	1.96E-08	1.33E-08	9.42E-09	4.34E-08
1.16E-09	1.97E-08	1.34E-08	9.50E-09	4.38E-08
1.17E-09	1.99E-08	1.35E-08	9.57E-09	4.41E-08
1.17E-09	2.00E-08	1.36E-08	9.63E-09	4.43E-08
1.12E-09	1.90E-08	1.29E-08	9.18E-09	4.23E-08
1.13E-09	1.93E-08	1.31E-08	9.28E-09	4.27E-08
1.14E-09	1.94E-08	1.32E-08	9.37E-09	4.31E-08
1.15E-09	1.96E-08	1.33E-08	9.45E-09	4.35E-08
1.16E-09	1.98E-08	1.34E-08	9.53E-09	4.39E-08
1.17E-09	2.00E-08	1.35E-08	9.62E-09	4.43E-08
1.18E-09	2.01E-08	1.37E-08	9.70E-09	4.47E-08
1.19E-09	2.03E-08	1.38E-08	9.77E-09	4.50E-08
1.20E-09	2.04E-08	1.38E-08	9.84E-09	4.53E-08
1.21E-09	2.06E-08	1.39E-08	9.91E-09	4.56E-08
1.22E-09	2.07E-08	1.40E-08	9.98E-09	4.60E-08
1.22E-09	2.09E-08	1.41E-08	1.00E-08	4.63E-08
1.23E-09	2.10E-08	1.42E-08	1.01E-08	4.66E-08
1.24E-09	2.11E-08	1.43E-08	1.02E-08	4.69E-08
1.25E-09	2.13E-08	1.44E-08	1.02E-08	4.72E-08
1.18E-09	2.01E-08	1.36E-08	9.68E-09	4.46E-08
1.19E-09	2.03E-08	1.38E-08	9.79E-09	4.51E-08
1.20E-09	2.05E-08	1.39E-08	9.90E-09	4.56E-08
1.22E-09	2.07E-08	1.41E-08	9.99E-09	4.60E-08
1.23E-09	2.10E-08	1.42E-08	1.01E-08	4.65E-08
1.24E-09	2.12E-08	1.44E-08	1.02E-08	4.70E-08
1.25E-09	2.14E-08	1.45E-08	1.03E-08	4.74E-08
1.26E-09	2.16E-08	1.46E-08	1.04E-08	4.78E-08
1.27E-09	2.17E-08	1.47E-08	1.05E-08	4.82E-08
1.28E-09	2.19E-08	1.48E-08	1.06E-08	4.86E-08
1.30E-09	2.21E-08	1.50E-08	1.07E-08	4.91E-08
1.31E-09	2.23E-08	1.51E-08	1.07E-08	4.94E-08
1.31E-09	2.24E-08	1.52E-08	1.08E-08	4.97E-08
1.32E-09	2.25E-08	1.53E-08	1.09E-08	5.00E-08
1.33E-09	2.27E-08	1.54E-08	1.09E-08	5.04E-08
1.24E-09	2.12E-08	1.44E-08	1.02E-08	4.70E-08
1.26E-09	2.15E-08	1.45E-08	1.03E-08	4.76E-08
1.27E-09	2.17E-08	1.47E-08	1.05E-08	4.82E-08
1.29E-09	2.20E-08	1.49E-08	1.06E-08	4.87E-08
1.30E-09	2.22E-08	1.51E-08	1.07E-08	4.93E-08
1.32E-09	2.25E-08	1.53E-08	1.08E-08	4.99E-08
1.33E-09	2.27E-08	1.54E-08	1.10E-08	5.04E-08
1.35E-09	2.29E-08	1.56E-08	1.11E-08	5.09E-08
1.36E-09	2.32E-08	1.57E-08	1.12E-08	5.14E-08
1.37E-09	2.34E-08	1.59E-08	1.13E-08	5.19E-08
1.39E-09	2.36E-08	1.60E-08	1.14E-08	5.24E-08
1.40E-09	2.38E-08	1.61E-08	1.15E-08	5.28E-08
1.41E-09	2.40E-08	1.63E-08	1.16E-08	5.32E-08
1.42E-09	2.41E-08	1.64E-08	1.16E-08	5.36E-08
1.43E-09	2.43E-08	1.65E-08	1.17E-08	5.40E-08
1.31E-09	2.23E-08	1.51E-08	1.08E-08	4.95E-08
1.33E-09	2.26E-08	1.53E-08	1.09E-08	5.02E-08
1.35E-09	2.29E-08	1.56E-08	1.11E-08	5.09E-08
1.37E-09	2.33E-08	1.58E-08	1.12E-08	5.17E-08
1.39E-09	2.36E-08	1.60E-08	1.14E-08	5.24E-08
1.40E-09	2.39E-08	1.62E-08	1.15E-08	5.31E-08
1.42E-09	2.42E-08	1.64E-08	1.17E-08	5.37E-08
1.43E-09	2.44E-08	1.66E-08	1.18E-08	5.42E-08
1.45E-09	2.48E-08	1.68E-08	1.19E-08	5.49E-08
1.47E-09	2.50E-08	1.70E-08	1.21E-08	5.56E-08
1.48E-09	2.53E-08	1.71E-08	1.22E-08	5.61E-08
1.50E-09	2.56E-08	1.74E-08	1.23E-08	5.68E-08
1.51E-09	2.58E-08	1.75E-08	1.24E-08	5.73E-08
1.53E-09	2.60E-08	1.76E-08	1.25E-08	5.77E-08
1.54E-09	2.62E-08	1.78E-08	1.26E-08	5.81E-08
1.38E-09	2.35E-08	1.59E-08	1.13E-08	5.21E-08
1.40E-09	2.39E-08	1.62E-08	1.15E-08	5.30E-08
1.42E-09	2.43E-08	1.64E-08	1.17E-08	5.38E-08
1.45E-09	2.47E-08	1.67E-08	1.19E-08	5.47E-08
1.47E-09	2.51E-08	1.70E-08	1.21E-08	5.56E-08
1.49E-09	2.54E-08	1.72E-08	1.23E-08	5.64E-08
1.51E-09	2.58E-08	1.75E-08	1.24E-08	5.72E-08
1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.79E-08
1.55E-09	2.65E-08	1.79E-08	1.27E-08	5.87E-08
1.57E-09	2.68E-08	1.82E-08	1.29E-08	5.95E-08
1.59E-09	2.71E-08	1.84E-08	1.31E-08	6.02E-08
1.61E-09	2.75E-08	1.86E-08	1.33E-08	6.10E-08
1.63E-09	2.78E-08	1.88E-08	1.34E-08	6.16E-08
1.64E-09	2.80E-08	1.90E-08	1.35E-08	6.21E-08
1.66E-09	2.82E-08	1.91E-08	1.36E-08	6.26E-08
1.45E-09	2.47E-08	1.68E-08	1.19E-08	5.48E-08
1.48E-09	2.52E-08	1.71E-08	1.21E-08	5.58E-08
1.50E-09	2.56E-08	1.74E-08	1.23E-08	5.68E-08
1.53E-09	2.61E-08	1.77E-08	1.26E-08	5.79E-08
1.56E-09	2.66E-08	1.80E-08	1.28E-08	5.90E-08
1.59E-09	2.70E-08	1.83E-08	1.30E-08	5.99E-08
1.61E-09	2.74E-08	1.86E-08	1.32E-08	6.09E-08
1.63E-09	2.78E-08	1.89E-08	1.34E-08	6.18E-08
1.66E-09	2.83E-08	1.92E-08	1.36E-08	6.28E-08
1.69E-09	2.88E-08	1.95E-08	1.39E-08	6.38E-08
1.71E-09	2.91E-08	1.98E-08	1.40E-08	6.46E-08

2.27E-10	4.45E-09	2.84E-09	1.99E-09	9.50E-09
2.32E-10	4.55E-09	2.90E-09	2.03E-09	9.72E-09
1.49E-10	2.91E-09	1.86E-09	1.30E-09	6.22E-09
1.50E-10	2.93E-09	1.87E-09	1.31E-09	6.25E-09
1.50E-10	2.94E-09	1.88E-09	1.32E-09	6.29E-09
1.51E-10	2.96E-09	1.89E-09	1.32E-09	6.32E-09
1.52E-10	2.98E-09	1.90E-09	1.33E-09	6.37E-09
1.53E-10	3.00E-09	1.91E-09	1.34E-09	6.40E-09
1.54E-10	3.01E-09	1.92E-09	1.35E-09	6.43E-09
1.55E-10	3.03E-09	1.93E-09	1.35E-09	6.47E-09
1.55E-10	3.04E-09	1.94E-09	1.36E-09	6.50E-09
1.56E-10	3.06E-09	1.95E-09	1.37E-09	6.53E-09
1.57E-10	3.08E-09	1.96E-09	1.38E-09	6.58E-09
1.59E-10	3.11E-09	1.98E-09	1.39E-09	6.63E-09
1.53E-10	3.00E-09	1.91E-09	1.34E-09	6.40E-09
1.54E-10	3.02E-09	1.92E-09	1.35E-09	6.44E-09
1.56E-10	3.05E-09	1.94E-09	1.36E-09	6.50E-09
1.57E-10	3.07E-09	1.96E-09	1.37E-09	6.56E-09
1.58E-10	3.09E-09	1.97E-09	1.38E-09	6.60E-09
1.59E-10	3.11E-09	1.98E-09	1.39E-09	6.64E-09
1.60E-10	3.14E-09	2.00E-09	1.40E-09	6.69E-09
1.61E-10	3.15E-09	2.01E-09	1.41E-09	6.74E-09
1.62E-10	3.17E-09	2.02E-09	1.42E-09	6.77E-09
1.63E-10	3.19E-09	2.03E-09	1.42E-09	6.81E-09
1.64E-10	3.20E-09	2.04E-09	1.43E-09	6.84E-09
1.64E-10	3.22E-09	2.05E-09	1.44E-09	6.88E-09
1.65E-10	3.24E-09	2.06E-09	1.45E-09	6.91E-09
1.67E-10	3.27E-09	2.08E-09	1.46E-09	6.97E-09
1.

2078	258639.6	4083913	1.737E-09	2.96E-08	2.01E-08	1.43E-08	6.57E-08	1.74E-09	2.96E-08	2.01E-08	1.43E-08	6.57E-08	2.64E-10	5.17E-09	3.30E-09	2.31E-09	1.10E-08	1.43E-10	3.25E-09	1.57E-09	1.14E-09	6.11E-09
2079	258664.6	4083913	1.756E-09	2.99E-08	2.03E-08	1.44E-08	6.64E-08	1.76E-09	2.99E-08	2.03E-08	1.44E-08	6.64E-08	2.67E-10	5.23E-09	3.33E-09	2.33E-09	1.12E-08	1.45E-10	3.29E-09	1.59E-09	1.15E-09	6.17E-09
2080	258689.6	4083913	1.773E-09	3.02E-08	2.05E-08	1.46E-08	6.71E-08	1.77E-09	3.02E-08	2.05E-08	1.46E-08	6.71E-08	2.70E-10	5.28E-09	3.36E-09	2.36E-09	1.13E-08	1.46E-10	3.32E-09	1.60E-09	1.17E-09	6.24E-09
2081	258714.6	4083913	1.789E-09	3.05E-08	2.07E-08	1.47E-08	6.77E-08	1.79E-09	3.05E-08	2.07E-08	1.47E-08	6.77E-08	2.72E-10	5.33E-09	3.40E-09	2.38E-09	1.14E-08	1.48E-10	3.35E-09	1.62E-09	1.18E-09	6.29E-09
2082	258739.6	4083913	1.804E-09	3.08E-08	2.09E-08	1.48E-08	6.82E-08	1.80E-09	3.08E-08	2.09E-08	1.48E-08	6.82E-08	2.74E-10	5.37E-09	3.42E-09	2.40E-09	1.15E-08	1.49E-10	3.38E-09	1.63E-09	1.19E-09	6.34E-09
2083	258764.6	4083913	1.818E-09	3.10E-08	2.10E-08	1.49E-08	6.87E-08	1.82E-09	3.10E-08	2.10E-08	1.49E-08	6.87E-08	2.76E-10	5.41E-09	3.45E-09	2.42E-09	1.16E-08	1.50E-10	3.40E-09	1.65E-09	1.19E-09	6.39E-09
2084	258789.6	4083913	1.83E-09	3.12E-08	2.12E-08	1.50E-08	6.92E-08	1.83E-09	3.12E-08	2.12E-08	1.50E-08	6.92E-08	2.78E-10	5.45E-09	3.47E-09	2.43E-09	1.16E-08	1.51E-10	3.42E-09	1.66E-09	1.20E-09	6.43E-09
2085	258814.6	4083913	1.841E-09	3.14E-08	2.13E-08	1.51E-08	6.96E-08	1.84E-09	3.14E-08	2.13E-08	1.51E-08	6.96E-08	2.80E-10	5.48E-09	3.49E-09	2.45E-09	1.17E-08	1.52E-10	3.45E-09	1.67E-09	1.21E-09	6.47E-09
2086	258839.6	4083913	1.863E-09	3.18E-08	2.15E-08	1.53E-08	7.04E-08	1.86E-09	3.18E-08	2.15E-08	1.53E-08	7.04E-08	2.83E-10	5.55E-09	3.53E-09	2.48E-09	1.18E-08	1.54E-10	3.49E-09	1.69E-09	1.22E-09	6.55E-09
2087	258864.6	4083913	1.88E-09	3.21E-08	2.17E-08	1.54E-08	7.11E-08	1.88E-09	3.21E-08	2.17E-08	1.54E-08	7.11E-08	2.86E-10	5.60E-09	3.57E-09	2.50E-09	1.20E-08	1.55E-10	3.52E-09	1.70E-09	1.24E-09	6.61E-09
2088	258889.6	4083913	1.897E-09	3.23E-08	2.19E-08	1.56E-08	7.18E-08	1.90E-09	3.23E-08	2.19E-08	1.56E-08	7.18E-08	2.88E-10	5.65E-09	3.60E-09	2.52E-09	1.21E-08	1.57E-10	3.55E-09	1.72E-09	1.25E-09	6.67E-09
2089	258914.6	4083913	1.925E-09	3.28E-08	2.23E-08	1.58E-08	7.28E-08	1.93E-09	3.28E-08	2.23E-08	1.58E-08	7.28E-08	2.93E-10	5.73E-09	3.65E-09	2.56E-09	1.22E-08	1.59E-10	3.60E-09	1.74E-09	1.27E-09	6.77E-09
2090	258939.6	4083913	1.976E-09	3.37E-08	2.28E-08	1.62E-08	7.47E-08	1.98E-09	3.37E-08	2.28E-08	1.62E-08	7.47E-08	3.00E-10	5.88E-09	3.75E-09	2.63E-09	1.26E-08	1.63E-10	3.70E-09	1.79E-09	1.30E-09	6.95E-09
2091	258964.6	4083913	2.033E-09	3.47E-08	2.35E-08	1.67E-08	7.69E-08	2.03E-09	3.47E-08	2.35E-08	1.67E-08	7.69E-08	3.09E-10	6.05E-09	3.86E-09	2.70E-09	1.29E-08	1.68E-10	3.81E-09	1.84E-09	1.34E-09	7.15E-09
2092	258989.6	4083913	2.114E-09	3.60E-08	2.44E-08	1.74E-08	7.99E-08	2.11E-09	3.60E-08	2.44E-08	1.74E-08	7.99E-08	3.21E-10	6.29E-09	4.01E-09	2.81E-09	1.34E-08	1.75E-10	3.96E-09	1.91E-09	1.39E-09	7.43E-09
2093	259014.6	4083913	2.227E-09	3.80E-08	2.57E-08	1.83E-08	8.42E-08	2.23E-09	3.80E-08	2.57E-08	1.83E-08	8.42E-08	3.39E-10	6.63E-09	4.23E-09	2.96E-09	1.42E-08	1.84E-10	4.17E-09	2.02E-09	1.46E-09	7.83E-09
2094	259039.6	4083913	2.366E-09	4.03E-08	2.73E-08	1.94E-08	8.95E-08	2.37E-09	4.03E-08	2.73E-08	1.94E-08	8.95E-08	3.60E-10	7.04E-09	4.49E-09	3.15E-09	1.50E-08	1.95E-10	4.43E-09	2.14E-09	1.55E-09	8.32E-09
2095	259064.6	4083913	2.52E-09	4.30E-08	2.91E-08	2.07E-08	9.53E-08	2.52E-09	4.30E-08	2.91E-08	2.07E-08	9.53E-08	3.83E-10	7.50E-09	4.78E-09	3.35E-09	1.60E-08	2.08E-10	4.72E-09	2.28E-09	1.66E-09	8.86E-09
2096	258364.6	4083938	1.523E-09	2.60E-08	1.76E-08	1.25E-08	5.76E-08	1.52E-09	2.60E-08	1.76E-08	1.25E-08	5.76E-08	2.32E-10	4.53E-09	2.89E-09	2.03E-09	9.68E-09	1.26E-10	2.85E-09	1.38E-09	1.00E-09	5.35E-09
2097	258389.6	4083938	1.554E-09	2.65E-08	1.80E-08	1.28E-08	5.88E-08	1.55E-09	2.65E-08	1.80E-08	1.28E-08	5.88E-08	2.36E-10	4.63E-09	2.95E-09	2.07E-09	9.88E-09	1.28E-10	2.91E-09	1.41E-09	1.02E-09	5.46E-09
2098	258414.6	4083938	1.587E-09	2.71E-08	1.83E-08	1.30E-08	6.00E-08	1.59E-09	2.71E-08	1.83E-08	1.30E-08	6.00E-08	2.41E-10	4.72E-09	3.01E-09	2.11E-09	1.01E-08	1.31E-10	2.97E-09	1.44E-09	1.04E-09	5.58E-09
2099	258439.6	4083938	1.621E-09	2.76E-08	1.87E-08	1.33E-08	6.13E-08	1.62E-09	2.76E-08	1.87E-08	1.33E-08	6.13E-08	2.46E-10	4.83E-09	3.07E-09	2.16E-09	1.03E-08	1.34E-10	3.03E-09	1.47E-09	1.07E-09	5.70E-09
2100	258464.6	4083938	1.653E-09	2.82E-08	1.91E-08	1.36E-08	6.25E-08	1.65E-09	2.82E-08	1.91E-08	1.36E-08	6.25E-08	2.51E-10	4.92E-09	3.14E-09	2.20E-09	1.05E-08	1.37E-10	3.09E-09	1.50E-09	1.09E-09	5.81E-09
2101	258489.6	4083938	1.684E-09	2.87E-08	1.95E-08	1.38E-08	6.37E-08	1.68E-09	2.87E-08	1.95E-08	1.38E-08	6.37E-08	2.56E-10	5.01E-09	3.19E-09	2.24E-09	1.07E-08	1.39E-10	3.15E-09	1.52E-09	1.11E-09	5.92E-09
2102	258514.6	4083938	1.713E-09	2.92E-08	1.98E-08	1.41E-08	6.48E-08	1.71E-09	2.92E-08	1.98E-08	1.41E-08	6.48E-08	2.61E-10	5.10E-09	3.25E-09	2.28E-09	1.09E-08	1.41E-10	3.21E-09	1.55E-09	1.13E-09	6.03E-09
2103	258539.6	4083938	1.743E-09	2.97E-08	2.01E-08	1.43E-08	6.59E-08	1.74E-09	2.97E-08	2.01E-08	1.43E-08	6.59E-08	2.65E-10	5.19E-09	3.31E-09	2.32E-09	1.11E-08	1.44E-10	3.26E-09	1.58E-09	1.15E-09	6.13E-09
2104	258564.6	4083938	1.777E-09	3.03E-08	2.05E-08	1.46E-08	6.72E-08	1.78E-09	3.03E-08	2.05E-08	1.46E-08	6.72E-08	2.70E-10	5.29E-09	3.37E-09	2.36E-09	1.13E-08	1.47E-10	3.32E-09	1.61E-09	1.17E-09	6.25E-09
2105	258589.6	4083938	1.809E-09	3.08E-08	2.09E-08	1.49E-08	6.84E-08	1.81E-09	3.08E-08	2.09E-08	1.49E-08	6.84E-08	2.75E-10	5.39E-09	3.43E-09	2.41E-09	1.15E-08	1.49E-10	3.39E-09	1.64E-09	1.19E-09	6.36E-09
2106	258614.6	4083938	1.836E-09	3.13E-08	2.12E-08	1.51E-08	6.95E-08	1.84E-09	3.13E-08	2.12E-08	1.51E-08	6.95E-08	2.79E-10	5.47E-09	3.48E-09	2.44E-09	1.17E-08	1.52E-10	3.44E-09	1.66E-09	1.21E-09	6.46E-09
2107	258639.6	4083938	1.866E-09	3.18E-08	2.16E-08	1.53E-08	7.06E-08	1.87E-09	3.18E-08	2.16E-08	1.53E-08	7.06E-08	2.84E-10	5.56E-09	3.54E-09	2.48E-09	1.19E-08	1.54E-10	3.49E-09	1.69E-09	1.23E-09	6.56E-09
2108	258664.6	4083938	1.896E-09	3.23E-08	2.19E-08	1.56E-08	7.17E-08	1.90E-09	3.23E-08	2.19E-08	1.56E-08	7.17E-08	2.88E-10	5.65E-09	3.60E-09	2.52E-09	1.21E-08	1.57E-10	3.55E-09	1.72E-09	1.25E-09	6.67E-09
2109	258689.6	4083938	1.92E-09	3.27E-08	2.22E-08	1.58E-08	7.26E-08	1.92E-09	3.27E-08	2.22E-08	1.58E-08	7.26E-08	2.92E-10	5.72E-09	3.64E-09	2.55E-09	1.22E-08	1.59E-10	3.59E-09	1.74E-09	1.26E-09	6.75E-09
2110	258714.6	4083938	1.941E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08	1.94E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08	2.95E-10	5.78E-09	3.68E-09	2.58E-09	1.23E-08	1.60E-10	3.63E-09	1.76E-09	1.28E-09	6.82E-09
2111	258739.6	4083938	1.96E-09	3.34E-08	2.27E-08	1.61E-08	7.41E-08	1.96E-09	3.34E-08	2.27E-08	1.61E-08	7.41E-08	2.98E-10	5.84E-09	3.72E-09	2.61E-09	1.25E-08	1.62E-10	3.67E-09	1.77E-09	1.29E-09	6.89E-09
2112	258764.6	4083938	1.977E-09	3.37E-08	2.28E-08	1.62E-08	7.48E-08	1.98E-09	3.37E-08	2.28E-08	1.62E-08	7.48E-08	3.01E-10	5.89E-09	3.75E-09	2.63E-09	1.26E-08	1.63E-10	3.70E-09	1.79E-09	1.30E-09	6.95E-09
2113	258789.6	4083938	1.991E-09	3.39E-08	2.30E-08	1.64E-08	7.53E-08	1.99E-09	3.39E-08	2.30E-08	1.64E-08	7.53E-08	3.03E-10	5.93E-09	3.78E-09	2.65E-09	1.27E-08	1.64E-10	3.73E-09	1.80E-09	1.31E-09	7.00E-09
2114	258814.6	4083938	2.004E-09	3.42E-08	2.32E-08	1.65E-08	7.58E-08	2.00E-09	3.42E-08	2.32E-08	1.65E-08	7.58E-08	3.05E-10	5.97E-09	3.80E-09	2.67E-09	1.27E-08	1.65E-10	3.75E-09	1.81E-09	1.32E-09	7.05E-09
2115	258839.6	4083938	2.02E-09	3.44E-08	2.33E-08	1.66E-08	7.64E-08	2.02E-09	3.44E-08	2.33E-08	1.66E-08	7.64E-08	3.07E-10	6.01E-09	3.83E-09	2.69E-09	1.28E-08	1.67E-10	3.78E-09	1.83E-09	1.33E-09	7.10E-09
2116	258864.6	4083938	2.04E-09	3.48E-08	2.36E-08	1.68E-08	7.72E-08	2.04E-09	3.48E-08	2.36E-08	1.68E-08	7.72E-08	3.10E-10	6.08E-09	3.87E-09	2.71E-09	1.30E-08	1.68E-10	3.82E-09	1.85E-09	1.34E-09	7.17E-09
2117	258889.6	4083938	2.062E-09	3.52E-08	2.38E-08	1.69E-08	7.80E-08	2.06E-09	3.52E-08	2.38E-08	1.69E-08	7.80E-08	3.14E-10	6.14E-09	3.91E-09	2.74E-09	1.31E-08	1.70E-10	3.86E-09	1.87E-09	1.36E-09	7.25E-09
2118	258914.6	4083938	2.091E-09	3.57E-08	2.42E-08	1.72E-08	7.91E-08	2.09E-09	3.57E-08	2.42E-08	1.72E-08	7.91E-08	3.18E-10	6.23E-09	3.97E-09	2.78E-09	1.33E-08	1.73E-10	3.91E-09	1.89E-09	1.37E-09	7.35E-09
2119	258939.6	4083938	2.149E-09	3.66E-08	2.48E-08	1.76E-08	8.13E-08	2.15E-09	3.66E-08	2.48E-08	1.76E-08	8.13E-08	3.27E-10	6.40E-09	4.08E-09	2.86E-09	1.37E-08	1.77E-10	4.02E-09	1.94E-09	1.41E-09	7.56E-09
2120	258964.6	4083938	2.216E-09	3.78E-08	2.56E-08	1.82E-08	8.38E-08	2.22E-09	3.78E-08	2.56E-08	1.82E-08	8.38E-08	3.37E-10	6.60E-09	4.20E-09	2.95E-09	1.41E-08	1.83E-10	4.15E-09	2.01E-09	1.46E-09	7.79E-09
2121	258989.6	4083938	2.324E-09	3.96E-08	2.69E-08	1.91E-08	8.79E-08	2.32E-09	3.96E-08	2.69E-08	1.91E-08	8.79E-08	3.53E-10	6.92E-09	4.41E-09	3.09E-09	1.48E-08	1.92E-10	4.35E-09	2.10E-09	1.53E-09	8.17E-09
2122	259014.6	4083938	2.465E-09	4.20E-08	2.85E-08	2.02E-08	9.32E-08	2.46E-09	4.20E-08	2.85E-08	2.02E-08	9.32E-08	3.75E-10	7.34E-09	4.68E-09	3.28E-09	1.57E-08	2.04E-10	4.61E-09	2.23E-09	1.62E-09	8.67E-09
2123	259039.6	4083938	2.637E-09	4.50E-08	3.05E-08	2.17E-08	9.97E-08	2.64E-09	4.50E-08	3.05E-08	2.17E-08	9.97E-08	4.01E-10	7.85E-09	5.00E-09	3.51E-09	1.68E-08	2.18E-10	4.93E-09	2.39E-09	1.73E-09	9.27E-09
2124	259064.6	4083938	2.831E-09	4.83E-08	3.27E-08	2.33E-08	1.07E-07	2.83E-09	4.83E-08	3.27E-08	2.33E-08	1.07E-07	4.31E-10	8.43E-09	5.37E-09	3.77E-09	1.80E-08	2.34E-10	5.30E-09	2.56E-09	1.86E-09	9.96E-09
2125	259089.6	4083938	3.039E-09	5.18E-08	3.51E-08	2.50E-08	1.15E-07	3.04E-09	5.18E-08	3.51E-08	2.50E-08	1.15E-07	4.62E-10	9.05E-09	5.77E-09	4.04E-09	1.93E-08	2.51E-10	5.69E-09	2.75E-09	2.00E-09	1.07E-08
2126	259114.6	4083938	3.246E-09	5.53E-08	3.75E-08	2.67E-08	1.23E-07	3.25E-09	5.53E-08	3.75E-08	2.67E-08	1.23E-07	4.94E-10	9.67E-09	6.16E-09	4.32E-09	2.06E-08	2.68E-10	6.07E-09	2.94E-09	2.13E-09	1.14E-08
2127	258364.6	4083963	1.597E-09	2.72E-08	1.85E-08	1.31E-08	6.04E-08	1.60E-09	2.72E-08	1.85E-08	1.31E-08	6.04E-08	2.43E-10	4.76E-09	3.03E-09	2.12E-09	1.02E-08	1.32E-10	2.99E-09	1.45E-09	1.05E-09	5.62E-09
2128	258389.6	4083963	1.635E-09	2.79E-08	1.89E-08	1.34E-08	6.18E-08	1.63E-09	2.79E-08	1.89E-08	1.34E-08	6.18E-08	2.49E-10	4.87E-09	3.10E-09	2.17E-09	1.04E-08	1.35E-10	3.06E-09	1.48E-09	1.07E-09	5.75E-09
2129	258414.6	4083963	1.674E-09	2.85E-08	1.94E-08	1.38E-08	6.33E-08	1.67E-09	2.85E-08	1.94E-08	1.38E-08	6.33E-08	2.55E-10	4.99E-09	3.18E-09	2.23E-09	1.06E-08	1.38E-10	3.13E-09	1.52E-09	1.10E-09	5.89E-09
2130	258439.6	4083963	1.712E-09	2.92E-08	1.98E-08	1.41E-08	6.48E-08	1.71E-09	2.92E-08	1.98E-08	1.41E-08	6.48E-08	2.60E-10	5.10E-09	3.25E-09	2.28E-09	1.09E-08	1.41E-10	3.20E-09	1.55E-09	1.13E-09	6.02E-09
2131	258464.6	4083963	1.749E-09	2.98E-08	2.02E-08	1.44E-08	6.62E-08	1.75E-09	2.98E-08	2.02E-08	1.44E-08	6.62E-08	2.66E-10	5.21E-09	3.32E-09	2.33E-09	1.11E-08	1.44E-10	3.27E-09	1.58E-09	1.15E-09	6.15E-09
2132	258489.6	4083963	1.786E-09	3.04E-08	2.06E-08	1.47E-08	6.75E-08	1.79E-09	3.04E-08	2.06E-08	1.47E-08	6.75E-08	2.72E-10	5.32E-09	3.39E-09	2.37E-09	1.14E-08	1.47E-10	3.34E-09	1.62E-09	1.17E-09	6.28E-09
2133	258514.6	4083963	1.822E-09	3.11E-08	2.11E-08	1.50E-08	6.89E-08	1.82E-09	3.11E-08	2.11E-08	1.50E-08	6.89E-08	2.77E-10	5.43E-09	3.46E-09	2.42E-09	1.16E-08	1.50E-10	3.41E-09	1.65E-09	1.20E-09	6.41E-09
2134	258539.6	4083963	1.858E-09	3.17E-08	2.15E-08	1.53E-08	7.03E-08	1.86E-09	3.17E-08	2.15E-08	1.53E-08	7.03E-08	2.83E-10	5.53E-09	3.53E-09	2.47E-09	1.18E-08	1.53E-10	3.48E-09	1.68E-09	1.22E-09	6.53E-09
2135	258564.6	4083963	1.9E-09	3.24E-08	2.20E-08	1.56E-08	7.18E-08	1.90E-09	3.24E-08	2.20E-08	1.56E-08	7.18E-08	2.89E-10	5.66E-09	3.60E-09	2.53E-09	1.21E-08	1.57E-10	3.55E-09	1.72E-09	1.25E-09	6.68E-09
2136	258589.6	4083963	1.94E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08	1.94E-09	3.31E-08	2.24E-08	1.59E-08	7.34E-08	2.95E-10	5.78E-09	3.68E-09	2.58E-09	1.23E-08	1.60E-10	3.63E-09	1.76E-09	1.28E-09	6.82E-09
2137	258614.6	4083963	1.974E-09	3.37E-08	2.28E-08	1.62E-08	7.47E-08	1.97E-09	3.37E-08	2.28E-08	1.62E-08	7.47E-08	3.00E-10	5.88E-09	3.75E-09	2.63E-09	1.26E-08	1.63E-10	3.69E-09	1.79E-09	1.30E-09	6.94E-09
2138	258639.6	4083963	2.007E-09	3.42E-08	2.32E-08	1.65E-08	7.59E-08	2.01E-09	3.42E-08	2.32E-08	1.65E-08	7.59E-08	3.05E-10	5.98E-09	3.81E-09	2.67E-09	1.28E-08	1.66E-10	3.76E-09	1.82E-09	1.32E-09	7.06E-09
2139	258664.6	4083963	2.045E-09	3.49E-08	2.36E-08	1.68E-08	7.73E-08	2.05E-09	3.49E-08	2.36E-08	1.68E-08	7.73E-08	3.11E-10	6.09E-09	3.88E-09	2.72E-09	1.30E-08	1.69E-10	3.83E-09	1.85E-09	1.34E-09	7.19E-09
2140	258689.6	4083963	2.081E-09	3.55E-08	2.40E-08	1.71E-08	7.87E-08	2.08E-09	3.55E-08	2.40E-08	1.71E-08	7.87E-08	3.16E-10	6.20E-09	3.95E-09	2.77E-09	1.32E-08	1.72E-10	3.89E-09	1.88E-09	1.37E-09	7.32E-09
2141	258714.6	4083963	2.11E-09	3.60E-08	2.44E-08	1.73E-08	7.98E-08	2.11E-09	3.60E-08	2.44E-08	1.73E-08	7.98E-08	3.21E-10	6.28E-09	4.00E-09	2.81E-09	1.34E-08	1.74E-10	3.95E-09	1.91E-09	1.39E-09	7.42E-09
2142	258739.6	4083963	2.136E-09	3.64E-08	2.47E-08	1.75E-08	8.08E-08	2.14E-09	3.64E-08	2.47E-08	1.75E-08	8.08E-08	3.25E-10	6.36E-09	4.05E-09	2.84E-09	1.36E-08	1.76E-10	4.00E-09	1.93E-09	1.40E-09	7.51E-09
2143	258764.6	4083963	2.158E-09	3.68E-08	2.49E-08	1.77E-08	8.16E-08	2.16E-09	3.68E-08	2.49E-08	1.77E-08	8.16E-08	3.28E-10	6.42E-09	4.09E-09	2.87E-09	1.37E-08	1.78E-10	4.04E-09	1.95E-09	1.42E-09	7.59E-09
2144	258789.6	4083963	2.176E-09	3.71E-08	2.52E-08	1.79E-08	8.23E-08	2.18E-09	3.71E-08	2.52E-08	1.79E-08	8.23E-08	3.31E-10	6.48E-09	4.13E-09	2.89E-09	1.38E-08	1.80E-10	4.07E-09	1.97E-09	1.43E-09	7.65E-09
2145	258814.6	4083963	2.191E-09	3.74E-08	2.53E-08	1.80E-08	8.29E-08	2.19E-09	3.74E-08	2.53E-08	1.80E-08	8.29E-08	3.33E-10	6.53E-09	4.16E-09	2.91E-09	1.39E-08	1.81E-10	4.10E-09	1.98E-09	1.44E-09	7.71E-09
2146	258839.6	4083963	2.204E-09	3.76E-08	2.55E-08	1.81E-08	8.34E-08	2.20E-09	3.76E-08	2.55E-08	1.81E-08	8.34E-08	3.35E-10	6.56E-09	4.18E-09	2.93E-09	1.40E-08	1.82E-10	4.12E-09	1.99E-09	1.45E-09	7.75E-09
2147	258864.6	4083963	2.222E-09	3.79E-08	2.57E-08	1.82E-08	8.40E-08	2.22E-09	3.79E-08	2.57E-08	1.82E-08	8.40E-08	3.38E-10	6.62E-09	4.22E-09	2.95E-09	1.41E-08	1.83E-10	4.16E-09	2.01E-09	1.46E-09	7.81E-09
2148	258889.6	4083963	2.243E-09	3.82E-08	2.59E-08	1.84E-08	8.48E-08	2.24E-09	3.82E-08	2.59E-08	1.84E-08	8.48E-08	3.41E-10	6.68E-09	4.25E-09	2.98E-09	1.43E-08	1.85E-10	4.20E-09	2.03E-09	1.47E-09	7.89E-09
2149	258914.6	4083963	2.275E-09	3.88E-08	2.63E-08	1.87E-08	8.60E-08	2.27E-09	3.88E-08	2.63E-08	1.87E-08	8.60E-08	3.46E-10	6.77E-09	4.32E-09	3.03E-09	1.45E-08	1.88E-10	4.26E-09	2.06E-09	1.50E-09	8.00E-09
2150	258939.6	4083963	2.349E-09	4.00E-08	2.71E-08	1.93E-08	8.88E-08	2.35E-09	4.00E-08	2.71E-08	1.93E-08	8.88E-08	3.57E-10	6.99E-09	4.46E-09	3.12E-09	1.49E-08	1.94E-10	4.40E-09	2.13E-09	1.54E-09	8.26E-09
2151	258964.6	4083963	2.438E-09	4.16E-08	2.82E-08	2.00E-08	9.22E-08	2.44E-09	4.16E-08	2.82E-08	2.00E-08	9.22E-08	3.71E-10	7.26E-09	4.63E-09	3.24E-09	1.55E-08	2.01E-10	4.56E-09	2.21E-09	1.60E-09	8.57E-09
2152	258989.6	4083963	2.574E-09	4.39E-08	2.97E-08	2.11E-08	9.73E-08	2.57E-09	4.39E-08	2.97E-08	2.11E-08	9.73E-08	3.91E-10	7.66E-09	4.88E-09	3.42E-09	1.64E-08	2.13E-10	4.82E-09	2.33E-09	1.69E-09	9.05E-09
2153	259014.6	4083963	2.751E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07	2.75E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07	4.18E-10	8.19E-09	5.22E-09	3.66E-09	1.75E-08	2.27E-10	5.15E-09	2.49E-09	1.81E-09	9.67E-09
2154	259039.6	4083963	2.973E-09	5.07E-08	3.44E-08	2.44E-08	1.12E-07	2.97E-09	5.07E-08	3.44E-08	2.44E-08	1.12E-07	4.52E-10	8.85E-09	5.64E-09	3.95E-09	1.89E-08	2.46E-10	5.56E-09	2.69E-09	1.95E-09	1.05E-08
2155	259064.6	4083963	3.226E-09	5.50E-08	3.73E-08	2.65E-08	1.22E-07	3.23E-09	5.50E-08	3.73E-08	2.65E-08	1.22E-07	4.91E-10	9.61E-09	6.12E-09	4.29E-09	2.05E-08	2.66E-10	6.04E-09	2.92E-09	2.12E-09	1.13E-08
2156	259089.6	4083963	3.477E-09	5.93E-08	4.02E-08	2.86E-08	1.32E-07	3.48E-09	5.93E-08	4.02E-08	2.86E-08	1.32E-07	5.29E-10	1.04E-08	6.60E-09	4.62E-09	2.21E-08	2.87E-10	6.51E-09	3.15E-09	2.29E-09	1.22E-08
2157	259114.6	4083963	3.716E-09	6.33E-08	4.29E-08	3.05E-08

2208	258764.6	4084013	2.591E-09	4.42E-08	2.99E-08	2.13E-08	9.80E-08	2.59E-09	4.42E-08	2.99E-08	2.13E-08	9.80E-08	3.94E-10	7.71E-09	4.92E-09	3.45E-09	1.65E-08	2.14E-10	4.85E-09	2.34E-09	1.70E-09	9.11E-09
2209	258789.6	4084013	2.626E-09	4.48E-08	3.04E-08	2.16E-08	9.93E-08	2.63E-09	4.48E-08	3.04E-08	2.16E-08	9.93E-08	3.99E-10	7.82E-09	4.98E-09	3.49E-09	1.67E-08	2.17E-10	4.91E-09	2.38E-09	1.73E-09	9.23E-09
2210	258814.6	4084013	2.653E-09	4.52E-08	3.07E-08	2.18E-08	1.00E-07	2.65E-09	4.52E-08	3.07E-08	2.18E-08	1.00E-07	4.03E-10	7.90E-09	5.03E-09	3.53E-09	1.69E-08	2.19E-10	4.97E-09	2.40E-09	1.74E-09	9.33E-09
2211	258839.6	4084013	2.672E-09	4.56E-08	3.09E-08	2.19E-08	1.01E-07	2.67E-09	4.56E-08	3.09E-08	2.19E-08	1.01E-07	4.06E-10	7.96E-09	5.07E-09	3.55E-09	1.70E-08	2.21E-10	5.00E-09	2.42E-09	1.76E-09	9.40E-09
2212	258864.6	4084013	2.681E-09	4.57E-08	3.10E-08	2.20E-08	1.01E-07	2.68E-09	4.57E-08	3.10E-08	2.20E-08	1.01E-07	4.08E-10	7.98E-09	5.09E-09	3.57E-09	1.70E-08	2.21E-10	5.02E-09	2.43E-09	1.76E-09	9.43E-09
2213	258889.6	4084013	2.688E-09	4.58E-08	3.11E-08	2.21E-08	1.02E-07	2.69E-09	4.58E-08	3.11E-08	2.21E-08	1.02E-07	4.09E-10	8.00E-09	5.10E-09	3.57E-09	1.71E-08	2.22E-10	5.03E-09	2.43E-09	1.77E-09	9.45E-09
2214	258914.6	4084013	2.716E-09	4.63E-08	3.14E-08	2.23E-08	1.03E-07	2.72E-09	4.63E-08	3.14E-08	2.23E-08	1.03E-07	4.13E-10	8.09E-09	5.15E-09	3.61E-09	1.73E-08	2.24E-10	5.08E-09	2.46E-09	1.79E-09	9.55E-09
2215	258939.6	4084013	2.823E-09	4.81E-08	3.26E-08	2.32E-08	1.07E-07	2.82E-09	4.81E-08	3.26E-08	2.32E-08	1.07E-07	4.29E-10	8.41E-09	5.36E-09	3.76E-09	1.79E-08	2.33E-10	5.28E-09	2.56E-09	1.86E-09	9.93E-09
2216	258964.6	4084013	2.972E-09	5.07E-08	3.43E-08	2.44E-08	1.12E-07	2.97E-09	5.07E-08	3.43E-08	2.44E-08	1.12E-07	4.52E-10	8.85E-09	5.64E-09	3.95E-09	1.89E-08	2.45E-10	5.56E-09	2.69E-09	1.95E-09	1.05E-08
2217	258989.6	4084013	3.222E-09	5.49E-08	3.72E-08	2.65E-08	1.22E-07	3.22E-09	5.49E-08	3.72E-08	2.65E-08	1.22E-07	4.90E-10	9.59E-09	6.11E-09	4.29E-09	2.05E-08	2.66E-10	6.03E-09	2.92E-09	2.12E-09	1.13E-08
2218	259014.6	4084013	3.548E-09	6.05E-08	4.10E-08	2.91E-08	1.34E-07	3.55E-09	6.05E-08	4.10E-08	2.91E-08	1.34E-07	5.40E-10	1.06E-08	6.73E-09	4.72E-09	2.26E-08	2.93E-10	6.64E-09	3.21E-09	2.33E-09	1.25E-08
2219	259039.6	4084013	3.919E-09	6.68E-08	4.53E-08	3.22E-08	1.48E-07	3.92E-09	6.68E-08	4.53E-08	3.22E-08	1.48E-07	5.96E-10	1.17E-08	7.44E-09	5.21E-09	2.49E-08	3.24E-10	7.33E-09	3.55E-09	2.58E-09	1.38E-08
2220	259064.6	4084013	4.287E-09	7.31E-08	4.95E-08	3.52E-08	1.62E-07	4.29E-09	7.31E-08	4.95E-08	3.52E-08	1.62E-07	6.52E-10	1.28E-08	8.13E-09	5.70E-09	2.73E-08	3.54E-10	8.02E-09	3.88E-09	2.82E-09	1.51E-08
2221	259089.6	4084013	4.62E-09	7.88E-08	5.34E-08	3.80E-08	1.75E-07	4.62E-09	7.88E-08	5.34E-08	3.80E-08	1.75E-07	7.03E-10	1.38E-08	8.77E-09	6.14E-09	2.94E-08	3.82E-10	8.65E-09	4.18E-09	3.04E-09	1.62E-08
2222	259114.6	4084013	4.905E-09	8.36E-08	5.67E-08	4.03E-08	1.86E-07	4.91E-09	8.36E-08	5.67E-08	4.03E-08	1.86E-07	7.46E-10	1.46E-08	9.31E-09	6.52E-09	3.12E-08	4.05E-10	9.18E-09	4.44E-09	3.22E-09	1.72E-08
2223	259139.6	4084013	5.134E-09	8.75E-08	5.93E-08	4.22E-08	1.94E-07	5.13E-09	8.75E-08	5.93E-08	4.22E-08	1.94E-07	7.81E-10	1.53E-08	9.74E-09	6.83E-09	3.26E-08	4.24E-10	9.61E-09	4.65E-09	3.37E-09	1.81E-08
2224	259164.6	4084013	5.297E-09	9.03E-08	6.12E-08	4.35E-08	2.00E-07	5.30E-09	9.03E-08	6.12E-08	4.35E-08	2.00E-07	8.05E-10	1.58E-08	1.01E-08	7.04E-09	3.37E-08	4.37E-10	9.91E-09	4.79E-09	3.48E-09	1.86E-08
2225	258364.6	4084038	1.825E-09	3.11E-08	2.11E-08	1.50E-08	6.90E-08	1.82E-09	3.11E-08	2.11E-08	1.50E-08	6.90E-08	2.77E-10	5.43E-09	3.46E-09	2.43E-09	1.16E-08	1.51E-10	3.41E-09	1.65E-09	1.20E-09	6.42E-09
2226	258389.6	4084038	1.878E-09	3.20E-08	2.17E-08	1.54E-08	7.10E-08	1.88E-09	3.20E-08	2.17E-08	1.54E-08	7.10E-08	2.86E-10	5.59E-09	3.56E-09	2.50E-09	1.19E-08	1.55E-10	3.51E-09	1.70E-09	1.23E-09	6.60E-09
2227	258414.6	4084038	1.932E-09	3.29E-08	2.23E-08	1.59E-08	7.31E-08	1.93E-09	3.29E-08	2.23E-08	1.59E-08	7.31E-08	2.94E-10	5.75E-09	3.67E-09	2.57E-09	1.23E-08	1.60E-10	3.62E-09	1.75E-09	1.27E-09	6.79E-09
2228	258439.6	4084038	1.987E-09	3.39E-08	2.30E-08	1.63E-08	7.52E-08	1.99E-09	3.39E-08	2.30E-08	1.63E-08	7.52E-08	3.02E-10	5.92E-09	3.77E-09	2.64E-09	1.26E-08	1.64E-10	3.72E-09	1.80E-09	1.31E-09	6.99E-09
2229	258464.6	4084038	2.045E-09	3.49E-08	2.36E-08	1.68E-08	7.73E-08	2.04E-09	3.49E-08	2.36E-08	1.68E-08	7.73E-08	3.11E-10	6.09E-09	3.88E-09	2.72E-09	1.30E-08	1.69E-10	3.83E-09	1.85E-09	1.34E-09	7.19E-09
2230	258489.6	4084038	2.103E-09	3.59E-08	2.43E-08	1.73E-08	7.95E-08	2.10E-09	3.59E-08	2.43E-08	1.73E-08	7.95E-08	3.20E-10	6.26E-09	3.99E-09	2.80E-09	1.34E-08	1.74E-10	3.94E-09	1.90E-09	1.38E-09	7.40E-09
2231	258514.6	4084038	2.164E-09	3.69E-08	2.50E-08	1.78E-08	8.18E-08	2.16E-09	3.69E-08	2.50E-08	1.78E-08	8.18E-08	3.29E-10	6.44E-09	4.10E-09	2.88E-09	1.38E-08	1.79E-10	4.05E-09	1.96E-09	1.42E-09	7.61E-09
2232	258539.6	4084038	2.225E-09	3.79E-08	2.57E-08	1.83E-08	8.42E-08	2.23E-09	3.79E-08	2.57E-08	1.83E-08	8.42E-08	3.38E-10	6.63E-09	4.22E-09	2.96E-09	1.41E-08	1.84E-10	4.16E-09	2.01E-09	1.46E-09	7.82E-09
2233	258564.6	4084038	2.288E-09	3.90E-08	2.64E-08	1.88E-08	8.65E-08	2.29E-09	3.90E-08	2.64E-08	1.88E-08	8.65E-08	3.48E-10	6.81E-09	4.34E-09	3.04E-09	1.45E-08	1.89E-10	4.28E-09	2.07E-09	1.50E-09	8.05E-09
2234	258589.6	4084038	2.358E-09	4.02E-08	2.73E-08	1.94E-08	8.92E-08	2.36E-09	4.02E-08	2.73E-08	1.94E-08	8.92E-08	3.59E-10	7.02E-09	4.47E-09	3.14E-09	1.50E-08	1.95E-10	4.41E-09	2.13E-09	1.55E-09	8.29E-09
2235	258614.6	4084038	2.433E-09	4.15E-08	2.81E-08	2.00E-08	9.20E-08	2.43E-09	4.15E-08	2.81E-08	2.00E-08	9.20E-08	3.70E-10	7.24E-09	4.62E-09	3.24E-09	1.55E-08	2.01E-10	4.55E-09	2.20E-09	1.60E-09	8.56E-09
2236	258639.6	4084038	2.499E-09	4.26E-08	2.89E-08	2.05E-08	9.45E-08	2.50E-09	4.26E-08	2.89E-08	2.05E-08	9.45E-08	3.80E-10	7.44E-09	4.74E-09	3.32E-09	1.59E-08	2.06E-10	4.68E-09	2.26E-09	1.64E-09	8.79E-09
2237	258664.6	4084038	2.566E-09	4.37E-08	2.97E-08	2.11E-08	9.70E-08	2.57E-09	4.37E-08	2.97E-08	2.11E-08	9.70E-08	3.90E-10	7.64E-09	4.87E-09	3.41E-09	1.63E-08	2.12E-10	4.80E-09	2.32E-09	1.69E-09	9.02E-09
2238	258689.6	4084038	2.632E-09	4.49E-08	3.04E-08	2.16E-08	9.95E-08	2.63E-09	4.49E-08	3.04E-08	2.16E-08	9.95E-08	4.00E-10	7.84E-09	4.99E-09	3.50E-09	1.67E-08	2.17E-10	4.93E-09	2.38E-09	1.73E-09	9.25E-09
2239	258714.6	4084038	2.697E-09	4.60E-08	3.12E-08	2.22E-08	1.02E-07	2.70E-09	4.60E-08	3.12E-08	2.22E-08	1.02E-07	4.10E-10	8.03E-09	5.12E-09	3.59E-09	1.71E-08	2.23E-10	5.05E-09	2.44E-09	1.77E-09	9.48E-09
2240	258739.6	4084038	2.766E-09	4.72E-08	3.20E-08	2.27E-08	1.05E-07	2.77E-09	4.72E-08	3.20E-08	2.27E-08	1.05E-07	4.21E-10	8.24E-09	5.25E-09	3.68E-09	1.76E-08	2.28E-10	5.18E-09	2.50E-09	1.82E-09	9.73E-09
2241	258764.6	4084038	2.838E-09	4.84E-08	3.28E-08	2.33E-08	1.07E-07	2.84E-09	4.84E-08	3.28E-08	2.33E-08	1.07E-07	4.32E-10	8.45E-09	5.39E-09	3.77E-09	1.80E-08	2.34E-10	5.31E-09	2.57E-09	1.87E-09	9.98E-09
2242	258789.6	4084038	2.888E-09	4.92E-08	3.34E-08	2.37E-08	1.09E-07	2.89E-09	4.92E-08	3.34E-08	2.37E-08	1.09E-07	4.39E-10	8.60E-09	5.48E-09	3.84E-09	1.84E-08	2.39E-10	5.40E-09	2.61E-09	1.90E-09	1.02E-08
2243	258814.6	4084038	2.927E-09	4.99E-08	3.38E-08	2.40E-08	1.11E-07	2.93E-09	4.99E-08	3.38E-08	2.40E-08	1.11E-07	4.45E-10	8.72E-09	5.55E-09	3.89E-09	1.86E-08	2.42E-10	5.48E-09	2.65E-09	1.92E-09	1.03E-08
2244	258839.6	4084038	2.95E-09	5.03E-08	3.41E-08	2.42E-08	1.12E-07	2.95E-09	5.03E-08	3.41E-08	2.42E-08	1.12E-07	4.49E-10	8.79E-09	5.60E-09	3.92E-09	1.88E-08	2.44E-10	5.52E-09	2.67E-09	1.94E-09	1.04E-08
2245	258864.6	4084038	2.956E-09	5.04E-08	3.42E-08	2.43E-08	1.12E-07	2.96E-09	5.04E-08	3.42E-08	2.43E-08	1.12E-07	4.49E-10	8.80E-09	5.61E-09	3.93E-09	1.88E-08	2.44E-10	5.53E-09	2.68E-09	1.94E-09	1.04E-08
2246	258889.6	4084038	2.952E-09	5.03E-08	3.41E-08	2.42E-08	1.12E-07	2.95E-09	5.03E-08	3.41E-08	2.42E-08	1.12E-07	4.49E-10	8.79E-09	5.60E-09	3.93E-09	1.88E-08	2.44E-10	5.52E-09	2.67E-09	1.94E-09	1.04E-08
2247	258914.6	4084038	2.977E-09	5.08E-08	3.44E-08	2.45E-08	1.13E-07	2.98E-09	5.08E-08	3.44E-08	2.45E-08	1.13E-07	4.53E-10	8.87E-09	5.65E-09	3.96E-09	1.89E-08	2.46E-10	5.57E-09	2.69E-09	1.96E-09	1.05E-08
2248	258939.6	4084038	3.124E-09	5.33E-08	3.61E-08	2.57E-08	1.18E-07	3.12E-09	5.33E-08	3.61E-08	2.57E-08	1.18E-07	4.75E-10	9.30E-09	5.93E-09	4.15E-09	1.99E-08	2.58E-10	5.85E-09	2.83E-09	2.05E-09	1.10E-08
2249	258964.6	4084038	3.318E-09	5.66E-08	3.84E-08	2.73E-08	1.25E-07	3.32E-09	5.66E-08	3.84E-08	2.73E-08	1.25E-07	5.05E-10	9.88E-09	6.30E-09	4.41E-09	2.11E-08	2.74E-10	6.21E-09	3.00E-09	2.18E-09	1.17E-08
2250	258989.6	4084038	3.632E-09	6.19E-08	4.20E-08	2.98E-08	1.37E-07	3.63E-09	6.19E-08	4.20E-08	2.98E-08	1.37E-07	5.52E-10	1.08E-08	6.89E-09	4.83E-09	2.31E-08	3.00E-10	6.80E-09	3.29E-09	2.39E-09	1.28E-08
2251	259014.6	4084038	4.065E-09	6.93E-08	4.70E-08	3.34E-08	1.54E-07	4.07E-09	6.93E-08	4.70E-08	3.34E-08	1.54E-07	6.18E-10	1.21E-08	7.71E-09	5.41E-09	2.58E-08	3.36E-10	7.61E-09	3.68E-09	2.67E-09	1.43E-08
2252	259039.6	4084038	4.513E-09	7.69E-08	5.22E-08	3.71E-08	1.71E-07	4.51E-09	7.69E-08	5.22E-08	3.71E-08	1.71E-07	6.86E-10	1.34E-08	8.56E-09	6.00E-09	2.87E-08	3.73E-10	8.45E-09	4.08E-09	2.97E-09	1.59E-08
2253	259064.6	4084038	4.92E-09	8.39E-08	5.69E-08	4.04E-08	1.86E-07	4.92E-09	8.39E-08	5.69E-08	4.04E-08	1.86E-07	7.48E-10	1.46E-08	9.33E-09	6.54E-09	3.13E-08	4.06E-10	9.21E-09	4.45E-09	3.23E-09	1.73E-08
2254	259089.6	4084038	5.271E-09	8.99E-08	6.09E-08	4.33E-08	1.99E-07	5.27E-09	8.99E-08	6.09E-08	4.33E-08	1.99E-07	8.01E-10	1.57E-08	1.00E-08	7.01E-09	3.35E-08	4.35E-10	9.86E-09	4.77E-09	3.46E-09	1.85E-08
2255	259114.6	4084038	5.564E-09	9.49E-08	6.43E-08	4.57E-08	2.10E-07	5.56E-09	9.49E-08	6.43E-08	4.57E-08	2.10E-07	8.46E-10	1.66E-08	1.06E-08	7.40E-09	3.54E-08	4.59E-10	1.04E-08	5.04E-09	3.66E-09	1.96E-08
2256	259139.6	4084038	5.794E-09	9.88E-08	6.70E-08	4.76E-08	2.19E-07	5.79E-09	9.88E-08	6.70E-08	4.76E-08	2.19E-07	8.81E-10	1.73E-08	1.10E-08	7.71E-09	3.68E-08	4.78E-10	1.08E-08	5.24E-09	3.81E-09	2.04E-08
2257	259164.6	4084038	5.951E-09	1.01E-07	6.88E-08	4.89E-08	2.25E-07	5.95E-09	1.01E-07	6.88E-08	4.89E-08	2.25E-07	9.05E-10	1.77E-08	1.13E-08	7.91E-09	3.78E-08	4.91E-10	1.11E-08	5.39E-09	3.91E-09	2.09E-08
2258	258364.6	4084063	1.897E-09	3.23E-08	2.19E-08	1.56E-08	7.18E-08	1.90E-09	3.23E-08	2.19E-08	1.56E-08	7.18E-08	2.89E-10	5.65E-09	3.60E-09	2.52E-09	1.21E-08	1.57E-10	3.55E-09	1.72E-09	1.25E-09	6.67E-09
2259	258389.6	4084063	1.955E-09	3.33E-08	2.26E-08	1.61E-08	7.39E-08	1.95E-09	3.33E-08	2.26E-08	1.61E-08	7.39E-08	2.97E-10	5.82E-09	3.71E-09	2.60E-09	1.24E-08	1.61E-10	3.66E-09	1.77E-09	1.29E-09	6.87E-09
2260	258414.6	4084063	2.015E-09	3.43E-08	2.33E-08	1.65E-08	7.62E-08	2.01E-09	3.43E-08	2.33E-08	1.65E-08	7.62E-08	3.06E-10	6.00E-09	3.82E-09	2.68E-09	1.28E-08	1.66E-10	3.77E-09	1.82E-09	1.32E-09	7.08E-09
2261	258439.6	4084063	2.077E-09	3.54E-08	2.40E-08	1.71E-08	7.85E-08	2.08E-09	3.54E-08	2.40E-08	1.71E-08	7.85E-08	3.16E-10	6.18E-09	3.94E-09	2.76E-09	1.32E-08	1.72E-10	3.89E-09	1.88E-09	1.37E-09	7.30E-09
2262	258464.6	4084063	2.141E-09	3.65E-08	2.47E-08	1.76E-08	8.10E-08	2.14E-09	3.65E-08	2.47E-08	1.76E-08	8.10E-08	3.26E-10	6.38E-09	4.06E-09	2.85E-09	1.36E-08	1.77E-10	4.01E-09	1.94E-09	1.41E-09	7.53E-09
2263	258489.6	4084063	2.208E-09	3.76E-08	2.55E-08	1.81E-08	8.35E-08	2.21E-09	3.76E-08	2.55E-08	1.81E-08	8.35E-08	3.36E-10	6.57E-09	4.19E-09	2.94E-09	1.40E-08	1.82E-10	4.13E-09	2.00E-09	1.45E-09	7.76E-09
2264	258514.6	4084063	2.277E-09	3.88E-08	2.63E-08	1.87E-08	8.61E-08	2.28E-09	3.88E-08	2.63E-08	1.87E-08	8.61E-08	3.46E-10	6.78E-09	4.32E-09	3.03E-09	1.45E-08	1.88E-10	4.26E-09	2.06E-09	1.50E-09	8.01E-09
2265	258539.6	4084063	2.348E-09	4.00E-08	2.71E-08	1.93E-08	8.88E-08	2.35E-09	4.00E-08	2.71E-08	1.93E-08	8.88E-08	3.57E-10	6.99E-09	4.46E-09	3.12E-09	1.49E-08	1.94E-10	4.39E-09	2.13E-09	1.54E-09	8.26E-09
2266	258564.6	4084063	2.422E-09	4.13E-08	2.80E-08	1.99E-08	9.16E-08	2.42E-09	4.13E-08	2.80E-08	1.99E-08	9.16E-08	3.68E-10	7.21E-09	4.59E-09	3.22E-09	1.54E-08	2.00E-10	4.53E-09	2.19E-09	1.59E-09	8.52E-09
2267	258589.6	4084063	2.503E-09	4.27E-08	2.89E-08	2.06E-08	9.47E-08	2.50E-09	4.27E-08	2.89E-08	2.06E-08	9.47E-08	3.81E-10	7.45E-09	4.75E-09	3.33E-09	1.59E-08	2.07E-10	4.68E-09	2.27E-09	1.65E-09	8.80E-09
2268	258614.6	4084063	2.592E-09	4.42E-08	3.00E-08	2.13E-08	9.80E-08	2.59E-09	4.42E-08	3.00E-08	2.13E-08	9.80E-08	3.94E-10	7.72E-09	4.92E-09	3.45E-09	1.65E-08	2.14E-10	4.85E-09	2.35E-09	1.70E-09	9.12E-09
2269	258639.6	4084063	2.672E-09	4.56E-08	3.09E-08	2.20E-08	1.01E-07	2.67E-09	4.56E-08	3.09E-08	2.20E-08	1.01E-07	4.06E-10	7.96E-09	5.07E-09	3.55E-09	1.70E-08	2.21E-10	5.00E-09	2.42E-09	1.76E-09	9.40E-09
2270	258664.6	4084063	2.754E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07	2.75E-09	4.69E-08	3.18E-08	2.26E-08	1.04E-07	4.19E-10	8.20E-09	5.22E-09	3.66E-09	1.75E-08	2.27E-10	5.15E-09	2.49E-09	1.81E-09	9.68E-09
2271	258689.6	4084063	2.836E-09	4.83E-08	3.28E-08	2.33E-08	1.07E-07	2.84E-09	4.83E-08	3.28E-08	2.33E-08	1.07E-07	4.31E-10	8.44E-09	5.38E-09	3.77E-09	1.80E-08	2.34E-10	5.31E-09	2.57E-09	1.86E-09	9.97E-09
2272	258714.6	4084063	2.917E-09	4.97E-08	3.37E-08	2.40E-08	1.10E-07	2.92E-09	4.97E-08	3.37E-08	2.40E-08	1.10E-07	4.44E-10	8.69E-09	5.53E-09	3.88E-09	1.85E-08	2.41E-10	5.46E-09	2.64E-09	1.92E-09	1.03E-08
2273	258739.6	4084063	2.997E-09	5.11E-08	3.46E-08	2.46E-08	1.13E-07	3.00E-09	5.11E-08	3.46E-08	2.46E-08	1.13E-07	4.56E-10	8.93E-09	5.69E-09	3.99E-09	1.91E-08	2.48E-10	5.61E-09	2.71E-09	1.97E-09	1.05E-08
2274	258764.6	4084063	3.08E-09	5.25E-08	3.56E-08	2.53E-08	1.16E-07	3.08E-09	5.25E-08	3.56E-08	2.53E-08	1.16E-07	4.68E-10	9.17E-09	5.84E-09	4.10E-09	1.96E-08	2.54E-10	5.76E-09	2.79E-09	2.02E-09	1.08E-08
2275	258789.6	4084063	3.167E-09	5.40E-08	3.66E-08	2.60E-08	1.20E-07	3.17E-09	5.40E-08	3.66E-08	2.60E-08	1.20E-07	4.82E-10	9.43E-09	6.01E-09	4.21E-09	2.01E-08	2.62E-10	5.93E-09	2.87E-09	2.08E-09	1.11E-08
2276	258814.6	4084063	3.219E-09	5.49E-08	3.72E-08	2.64E-08	1.22E-07	3.22E-09	5.49E-08	3.72E-08	2.64E-08	1.22E-07	4.90E-10	9.59E-09	6.11E-09	4.28E-09	2.05E-08	2.66E-10	6.02E-09	2.91E-09	2.12E-09	1.13E-08
2277	258839.6	4084063	3.247E-09	5.54E-08	3.75E-08	2.67E-08	1.23E-07	3.25E-09	5.54E-08	3.75E-08	2.67E-08	1.23E-07	4.94E-10	9.67E-09	6.16E-09	4.32E-09	2.06E-08	2.68E-10	6.08E-09	2.94E-09	2.13E-09	1.14E-08
2278	258864.6	4084063	3.248E-09	5.54E-08	3.75E-08	2.67E-08	1.23E-07	3.25E-09	5.54E-08	3.75E-08	2.67E-08	1.23E-07	4.94E-10	9.67E-09	6.16E-09	4.32E-09	2.06E-08	2.68E-10	6.08E-09	2.94E-09	2.14E-09	1.14E-08
2279	258889.6	4084063	3.244E-09	5.53E-08	3.75E-08	2.67E-08	1.23E-07	3.24E-09	5.53E-08	3.75E-08	2.67E-08	1.23E-07	4.93E-10	9.66E-09	6.16E-09	4.31E-09	2.06E-08	2.68E-10	6.07E-09	2.94E-09	2.13E-09	1.14E-08
2280	258914.6	4084063	3.293E-09	5.61E-08	3.81E-08	2.70E-08	1.25E-07	3.29E-09	5.61E-08	3.81E-08	2.70E-08	1.25E-07	5.01E-10	9.81E-09	6.25E-09	4.38E-09	2.09E-08	2.72E-10	6.16E-09	2.98E-09	2.16E-09	1.16E-08
2281	258939.6	4084063	3.468E-09	5.91E-08	4.01E-08	2.85E-08	1.31E-07	3.47E-09	5.91E-08	4.01E-08	2.85E-08	1.31E-07	5.27E-10	1.03E-08	6.58E-09	4.61E-09	2.20E-08	2.86E-10	6.49E-09	3.14E-09	2.28E-09	1.22E-08
2282	258964.6	4084063	3.683E-09	6.28E-08	4.26E-08	3.03E-08	1.39E-07	3.68E-09	6.28E-08	4.26E-08	3.03E-08	1.39E-07	5.60E-10	1.10E-08	6.99E-09	4.90E-09	2.34E-08	3.04E-10	6.89E-09	3.33E-09	2.42E-09	1.29E-08
2283	258989.6	4084063	4.114E-09	7.01E-08	4.76E-08	3.38E-08	1.56E-07	4.11E-09	7.01E-08	4.76E-08	3.38E-08	1.56E-07	6.26E-10	1.23E-08	7.81E-09	5.47E-09	2.62E-08	3.40E-10	7.70E-09	3.72E-09	2.70E-09	1.45E-08
2284	259014.6	4084063	4.629E-09	7.89E-08	5.35E-08	3.80E-08	1.75E-07	4.63E-09	7.89E-08	5.35E-08	3.80E-08	1.75E-07	7.04E-10	1.38E-08	8.78E-09	6.16E-09	2.94E-08	3.82E-10	8.66E-09	4.19E-09	3.04E-09	1.63E-08
2285	259039.6	4084063	5.101E-09	8.70E-08	5.90E-08	4.19E-08	1.93E-07	5.10E-09	8.70E-08	5.90E-08	4.19E-08	1.93E-07	7.76E-10	1.52E-08	9.68E-09	6.78E-09	3.24E-08	4.21E-10	9.55E-09	4.62E-09	3.35E-09	1.79E-08
2286	259064.6	4084063	5.508E-09	9.39E-08	6.37E-08	4.52E-08	2.08E-07	5.51E-09	9.39E-08	6.37E-08	4.52E-08	2.08E-07	8.38E-10	1.64E-08	1.05E-08	7.33E-09	3.50E-08	4.55E-10	1.03E-08	4.98E-09	3.62E-09	1.94E-08
2287	259089.6	4084063	5.859E-09	9.99E-08	6.77E-08	4.81E-08

			UnMitigated				T2				T2L3				T4			
			5.42E-04	9.24E-03	6.27E-03	4.45E-03	5.42E-04	9.24E-03	6.27E-03	4.45E-03	8.24E-05	1.61E-03	1.03E-03	7.21E-04	4.48E-05	1.01E-03	4.91E-04	3.56E-04
			Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4
1	258508.3	4085082	9.28E-05	1.58E-03	1.07E-03	7.62E-04	9.28E-05	1.58E-03	1.07E-03	7.62E-04	1.41E-05	2.76E-04	1.76E-04	1.23E-04	7.66E-06	1.74E-04	8.40E-05	6.10E-05
2	258533.3	4085082	9.42E-05	1.61E-03	1.09E-03	7.74E-04	9.42E-05	1.61E-03	1.09E-03	7.74E-04	1.43E-05	2.81E-04	1.79E-04	1.25E-04	7.78E-06	1.76E-04	8.53E-05	6.20E-05
3	258558.3	4085082	9.57E-05	1.63E-03	1.11E-03	7.86E-04	9.57E-05	1.63E-03	1.11E-03	7.86E-04	1.46E-05	2.85E-04	1.82E-04	1.27E-04	7.91E-06	1.79E-04	8.66E-05	6.29E-05
4	258583.3	4085082	9.73E-05	1.66E-03	1.12E-03	7.99E-04	9.73E-05	1.66E-03	1.12E-03	7.99E-04	1.48E-05	2.90E-04	1.85E-04	1.29E-04	8.03E-06	1.82E-04	8.80E-05	6.40E-05
5	258608.3	4085082	9.89E-05	1.69E-03	1.14E-03	8.12E-04	9.89E-05	1.69E-03	1.14E-03	8.12E-04	1.50E-05	2.94E-04	1.88E-04	1.32E-04	8.17E-06	1.85E-04	8.95E-05	6.50E-05
6	258633.3	4085082	1.01E-04	1.71E-03	1.16E-03	8.26E-04	1.01E-04	1.71E-03	1.16E-03	8.26E-04	1.53E-05	2.99E-04	1.91E-04	1.34E-04	8.30E-06	1.88E-04	9.10E-05	6.61E-05
7	258658.3	4085082	1.02E-04	1.74E-03	1.18E-03	8.40E-04	1.02E-04	1.74E-03	1.18E-03	8.40E-04	1.56E-05	3.05E-04	1.94E-04	1.36E-04	8.45E-06	1.91E-04	9.26E-05	6.72E-05
8	258683.3	4085082	1.04E-04	1.78E-03	1.20E-03	8.55E-04	1.04E-04	1.78E-03	1.20E-03	8.55E-04	1.58E-05	3.10E-04	1.98E-04	1.38E-04	8.60E-06	1.95E-04	9.42E-05	6.84E-05
9	258708.3	4085082	1.06E-04	1.81E-03	1.23E-03	8.71E-04	1.06E-04	1.81E-03	1.23E-03	8.71E-04	1.61E-05	3.16E-04	2.01E-04	1.41E-04	8.76E-06	1.98E-04	9.60E-05	6.97E-05
10	258733.3	4085082	1.08E-04	1.84E-03	1.25E-03	8.88E-04	1.08E-04	1.84E-03	1.25E-03	8.88E-04	1.64E-05	3.22E-04	2.05E-04	1.44E-04	8.92E-06	2.02E-04	9.78E-05	7.10E-05
11	258758.3	4085082	1.10E-04	1.88E-03	1.27E-03	9.05E-04	1.10E-04	1.88E-03	1.27E-03	9.05E-04	1.68E-05	3.28E-04	2.09E-04	1.47E-04	9.10E-06	2.06E-04	9.97E-05	7.24E-05
12	258783.3	4085082	1.12E-04	1.92E-03	1.30E-03	9.24E-04	1.12E-04	1.92E-03	1.30E-03	9.24E-04	1.71E-05	3.35E-04	2.13E-04	1.50E-04	9.29E-06	2.10E-04	1.02E-04	7.39E-05
13	258808.3	4085082	1.15E-04	1.96E-03	1.33E-03	9.44E-04	1.15E-04	1.96E-03	1.33E-03	9.44E-04	1.75E-05	3.42E-04	2.18E-04	1.53E-04	9.49E-06	2.15E-04	1.04E-04	7.55E-05
14	258833.3	4085082	1.17E-04	2.00E-03	1.36E-03	9.64E-04	1.17E-04	2.00E-03	1.36E-03	9.64E-04	1.79E-05	3.50E-04	2.23E-04	1.56E-04	9.70E-06	2.20E-04	1.06E-04	7.72E-05
15	259858.3	4085082	1.87E-05	3.18E-04	2.16E-04	1.53E-04	1.87E-05	3.18E-04	2.16E-04	1.53E-04	2.84E-06	5.56E-05	3.54E-05	2.48E-05	1.54E-06	3.49E-05	1.69E-05	1.23E-05
16	259883.3	4085082	1.80E-05	3.07E-04	2.08E-04	1.48E-04	1.80E-05	3.07E-04	2.08E-04	1.48E-04	2.74E-06	5.37E-05	3.42E-05	2.40E-05	1.49E-06	3.37E-05	1.63E-05	1.19E-05
17	259908.3	4085082	1.74E-05	2.97E-04	2.01E-04	1.43E-04	1.74E-05	2.97E-04	2.01E-04	1.43E-04	2.65E-06	5.19E-05	3.31E-05	2.32E-05	1.44E-06	3.26E-05	1.58E-05	1.15E-05
18	259933.3	4085082	1.69E-05	2.89E-04	1.96E-04	1.39E-04	1.69E-05	2.89E-04	1.96E-04	1.39E-04	2.57E-06	5.04E-05	3.21E-05	2.25E-05	1.40E-06	3.17E-05	1.53E-05	1.11E-05
19	259958.3	4085082	1.65E-05	2.82E-04	1.91E-04	1.36E-04	1.65E-05	2.82E-04	1.91E-04	1.36E-04	2.52E-06	4.93E-05	3.14E-05	2.20E-05	1.37E-06	3.10E-05	1.50E-05	1.09E-05
20	259983.3	4085082	1.62E-05	2.75E-04	1.87E-04	1.33E-04	1.62E-05	2.75E-04	1.87E-04	1.33E-04	2.46E-06	4.81E-05	3.06E-05	2.15E-05	1.33E-06	3.02E-05	1.46E-05	1.06E-05
21	258508.3	4085107	8.78E-05	1.50E-03	1.02E-03	7.21E-04	8.78E-05	1.50E-03	1.02E-03	7.21E-04	1.34E-05	2.62E-04	1.67E-04	1.17E-04	7.25E-06	1.64E-04	7.95E-05	5.77E-05
22	258533.3	4085107	8.91E-05	1.52E-03	1.03E-03	7.32E-04	8.91E-05	1.52E-03	1.03E-03	7.32E-04	1.36E-05	2.65E-04	1.69E-04	1.19E-04	7.36E-06	1.67E-04	8.07E-05	5.86E-05
23	258558.3	4085107	9.04E-05	1.54E-03	1.05E-03	7.43E-04	9.04E-05	1.54E-03	1.05E-03	7.43E-04	1.38E-05	2.69E-04	1.72E-04	1.20E-04	7.47E-06	1.69E-04	8.18E-05	5.94E-05
24	258583.3	4085107	9.18E-05	1.56E-03	1.06E-03	7.54E-04	9.18E-05	1.56E-03	1.06E-03	7.54E-04	1.40E-05	2.73E-04	1.74E-04	1.22E-04	7.58E-06	1.72E-04	8.31E-05	6.03E-05
25	258608.3	4085107	9.32E-05	1.59E-03	1.08E-03	7.65E-04	9.32E-05	1.59E-03	1.08E-03	7.65E-04	1.42E-05	2.77E-04	1.77E-04	1.24E-04	7.70E-06	1.74E-04	8.43E-05	6.13E-05
26	258633.3	4085107	9.46E-05	1.61E-03	1.09E-03	7.77E-04	9.46E-05	1.61E-03	1.09E-03	7.77E-04	1.44E-05	2.82E-04	1.80E-04	1.26E-04	7.82E-06	1.77E-04	8.56E-05	6.22E-05
27	258658.3	4085107	9.61E-05	1.64E-03	1.11E-03	7.90E-04	9.61E-05	1.64E-03	1.11E-03	7.90E-04	1.46E-05	2.86E-04	1.82E-04	1.28E-04	7.94E-06	1.80E-04	8.70E-05	6.32E-05
28	259208.3	4085107	1.14E-04	1.95E-03	1.32E-03	9.38E-04	1.14E-04	1.95E-03	1.32E-03	9.38E-04	1.74E-05	3.40E-04	2.17E-04	1.52E-04	9.43E-06	2.14E-04	1.03E-04	7.51E-05
29	259233.3	4085107	1.06E-04	1.80E-03	1.22E-03	8.69E-04	1.06E-04	1.80E-03	1.22E-03	8.69E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.73E-06	1.98E-04	9.57E-05	6.95E-05
30	259258.3	4085107	9.65E-05	1.64E-03	1.12E-03	7.92E-04	9.65E-05	1.64E-03	1.12E-03	7.92E-04	1.47E-05	2.87E-04	1.83E-04	1.28E-04	7.97E-06	1.81E-04	8.73E-05	6.34E-05
31	259283.3	4085107	8.64E-05	1.47E-03	9.99E-04	7.10E-04	8.64E-05	1.47E-03	9.99E-04	7.10E-04	1.31E-05	2.57E-04	1.64E-04	1.15E-04	7.14E-06	1.62E-04	7.82E-05	5.68E-05
32	259308.3	4085107	7.62E-05	1.30E-03	8.81E-04	6.26E-04	7.62E-05	1.30E-03	8.81E-04	6.26E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.30E-06	1.43E-04	6.90E-05	5.01E-05
33	259333.3	4085107	6.77E-05	1.15E-03	7.82E-04	5.56E-04	6.77E-05	1.15E-03	7.82E-04	5.56E-04	1.03E-05	2.01E-04	1.28E-04	9.00E-05	5.59E-06	1.27E-04	6.12E-05	4.45E-05
34	259358.3	4085107	6.04E-05	1.03E-03	6.98E-04	4.96E-04	6.04E-05	1.03E-03	6.98E-04	4.96E-04	9.18E-06	1.80E-04	1.15E-04	8.03E-05	4.99E-06	1.13E-04	5.47E-05	3.97E-05
35	259383.3	4085107	5.43E-05	9.25E-04	6.27E-04	4.46E-04	5.43E-05	9.25E-04	6.27E-04	4.46E-04	8.25E-06	1.62E-04	1.03E-04	7.22E-05	4.48E-06	1.02E-04	4.91E-05	3.57E-05
36	259408.3	4085107	4.91E-05	8.37E-04	5.67E-04	4.03E-04	4.91E-05	8.37E-04	5.67E-04	4.03E-04	7.46E-06	1.46E-04	9.31E-05	6.53E-05	4.05E-06	9.19E-05	4.44E-05	3.23E-05
37	259433.3	4085107	4.47E-05	7.62E-04	5.16E-04	3.67E-04	4.47E-05	7.62E-04	5.16E-04	3.67E-04	6.79E-06	1.33E-04	8.48E-05	5.94E-05	3.69E-06	8.36E-05	4.04E-05	2.94E-05
38	259458.3	4085107	4.09E-05	6.98E-04	4.73E-04	3.36E-04	4.09E-05	6.98E-04	4.73E-04	3.36E-04	6.23E-06	1.22E-04	7.77E-05	5.45E-05	3.38E-06	7.66E-05	3.71E-05	2.69E-05
39	259483.3	4085107	3.77E-05	6.44E-04	4.36E-04	3.10E-04	3.77E-05	6.44E-04	4.36E-04	3.10E-04	5.74E-06	1.12E-04	7.16E-05	5.02E-05	3.12E-06	7.06E-05	3.42E-05	2.48E-05
40	259508.3	4085107	3.50E-05	5.96E-04	4.04E-04	2.87E-04	3.50E-05	5.96E-04	4.04E-04	2.87E-04	5.32E-06	1.04E-04	6.64E-05	4.65E-05	2.89E-06	6.55E-05	3.17E-05	2.30E-05
41	259533.3	4085107	3.25E-05	5.53E-04	3.75E-04	2.67E-04	3.25E-05	5.53E-04	3.75E-04	2.67E-04	4.93E-06	9.66E-05	6.16E-05	4.32E-05	2.68E-06	6.07E-05	2.94E-05	2.13E-05
42	259558.3	4085107	3.02E-05	5.15E-04	3.49E-04	2.48E-04	3.02E-05	5.15E-04	3.49E-04	2.48E-04	4.60E-06	9.00E-05	5.73E-05	4.02E-05	2.50E-06	5.66E-05	2.73E-05	1.99E-05
43	259583.3	4085107	2.83E-05	4.83E-04	3.27E-04	2.33E-04	2.83E-05	4.83E-04	3.27E-04	2.33E-04	4.31E-06	8.44E-05	5.38E-05	3.77E-05	2.34E-06	5.30E-05	2.56E-05	1.86E-05
44	259608.3	4085107	2.67E-05	4.56E-04	3.09E-04	2.19E-04	2.67E-05	4.56E-04	3.09E-04	2.19E-04	4.06E-06	7.96E-05	5.07E-05	3.55E-05	2.21E-06	5.00E-05	2.42E-05	1.76E-05
45	259633.3	4085107	2.53E-05	4.31E-04	2.92E-04	2.08E-04	2.53E-05	4.31E-04	2.92E-04	2.08E-04	3.84E-06	7.52E-05	4.79E-05	3.36E-05	2.09E-06	4.73E-05	2.29E-05	1.66E-05
46	259658.3	4085107	2.39E-05	4.07E-04	2.76E-04	1.96E-04	2.39E-05	4.07E-04	2.76E-04	1.96E-04	3.63E-06	7.11E-05	4.53E-05	3.18E-05	1.97E-06	4.47E-05	2.16E-05	1.57E-05
47	259683.3	4085107	2.28E-05	3.88E-04	2.63E-04	1.87E-04	2.28E-05	3.88E-04	2.63E-04	1.87E-04	3.46E-06	6.78E-05	4.32E-05	3.03E-05	1.88E-06	4.26E-05	2.06E-05	1.50E-05
48	259708.3	4085107	2.17E-05	3.70E-04	2.51E-04	1.78E-04	2.17E-05	3.70E-04	2.51E-04	1.78E-04	3.30E-06	6.46E-05	4.12E-05	2.88E-05	1.79E-06	4.06E-05	1.96E-05	1.43E-05
49	259733.3	4085107	2.07E-05	3.52E-04	2.39E-04	1.70E-04	2.07E-05	3.52E-04	2.39E-04	1.70E-04	3.14E-06	6.16E-05	3.92E-05	2.75E-05	1.71E-06	3.87E-05	1.87E-05	1.36E-05
50	259758.3	4085107	1.98E-05	3.37E-04	2.29E-04	1.62E-04	1.98E-05	3.37E-04	2.29E-04	1.62E-04	3.01E-06	5.89E-05	3.75E-05	2.63E-05	1.63E-06	3.70E-05	1.79E-05	1.30E-05
51	259783.3	4085107	1.90E-05	3.25E-04	2.20E-04	1.56E-04	1.90E-05	3.25E-04	2.20E-04	1.56E-04	2.90E-06	5.67E-05	3.61E-05	2.53E-05	1.57E-06	3.56E-05	1.72E-05	1.25E-05
52	259808.3	4085107	1.84E-05	3.13E-04	2.12E-04	1.51E-04	1.84E-05	3.13E-04	2.12E-04	1.51E-04	2.79E-06	5.47E-05	3.49E-05	2.44E-05	1.52E-06	3.44E-05	1.66E-05	1.21E-05
53	259833.3	4085107	1.79E-05	3.05E-04	2.07E-04	1.47E-04	1.79E-05	3.05E-04	2.07E-04	1.47E-04	2.72E-06	5.32E-05	3.39E-05	2.38E-05	1.48E-06	3.34E-05	1.62E-05	1.17E-05
54	259858.3	4085107	1.74E-05	2.96E-04	2.01E-04	1.43E-04	1.74E-05	2.96E-04	2.01E-04	1.43E-04	2.64E-06	5.17E-05	3.29E-05	2.31E-05	1.43E-06	3.25E-05	1.57E-05	1.14E-05
55	259883.3	4085107	1.68E-05	2.86E-04	1.94E-04	1.38E-04	1.68E-05	2.86E-04	1.94E-04	1.38E-04	2.55E-06	5.00E-05	3.18E-05	2.23E-05	1.39E-06	3.14E-05	1.52E-05	1.10E-05
56	259908.3	4085107	1.62E-05	2.76E-04	1.87E-04	1.33E-04	1.62E-05	2.76E-04	1.87E-04	1.33E-04	2.47E-06	4.83E-05	3.08E-05	2.16E-05	1.34E-06	3.04E-05	1.47E-05	1.07E-05
57	259933.3	4085107	1.58E-05	2.69E-04	1.83E-04	1.30E-04	1.58E-05	2.69E-04	1.83E-04	1.30E-04	2.40E-06	4.70E-05	3.00E-05	2.10E-05	1.30E-06	2.96E-05	1.43E-05	1.04E-05
58	259958.3	4085107	1.55E-05	2.63E-04	1.79E-04	1.27E-04	1.55E-05	2.63E-04	1.79E-04	1.27E-04	2.35E-06	4.60E-05	2.93E-05	2.05E-05	1.28E-06	2.89E-05	1.40E-05	1.02E-05
59	259983.3	4085107	1.51E-05	2.58E-04	1.75E-04	1.24E-04	1.51E-05	2.58E-04	1.75E-04	1.24E-04	2.30E-06	4.50E-05	2.87E-05	2.01E-05	1.25E-06	2.83E-05	1.37E-05	9.94E-06
60	258508.3	4085132	8.32E-05	1.42E-03	9.61E-04	6.83E-04	8.32E-05	1.42E-03	9.61E-04	6.83E-04	1.26E-05	2.48E-04	1.58E-04	1.11E-04	6.87E-06	1.56E-04	7.53E-05	5.47E-05
61	258533.3	4085132	8.43E-05	1.44E-03	9.74E-04	6.92E-04	8.43E-05	1.44E-03	9.74E-04	6.92E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.96E-06	1.58E-04	7.63E-05	5.54E-05
62	258558.3	4085132	8.54E-05	1.46E-03	9.87E-04	7.02E-04	8.54E-05	1.46E-03	9.87E-04	7.02E-04	1.30E-05	2.54E-04	1.62E-04	1.14E-04	7.05E-06	1.60E-04	7.73E-05	5.62E-05
63	258583.3	4085132	8.66E-05	1.48E-03	1.00E-03	7.11E-04	8.66E-05	1.48E-03	1.00E-03	7.11E-04	1.32E-05	2.58E-04	1.64E-04	1.15E-04	7.15E-06	1.62E-04	7.84E-05	5.69E-05
64	258608.3	4085132	8.78E-05	1.50E-03	1.01E-03	7.21E-04	8.78E-05	1.50E-03	1.01E-03	7.21E-04	1.34E-05	2.61E-04	1.67E-04	1.17E-04	7.25E-06	1.64E-04	7.95E-05	5.77E-05
65	258633.3	4085132	8.91E-05	1.52E-03	1.03E-03	7.32E-04	8.91E-05	1.52E-03	1.03E-03	7.32E-04	1.35E-05	2.65E-04	1.69E-04	1.18E-04	7.35E-06	1.67E-04	8.06E-05	5.85E-05
66	258658.3	4085132	9.03E-05	1.54E-03	1.04E-03	7.42E-04	9.03E-05	1.54E-03	1.04E-03	7.42E-04	1.37E-05	2.69E-04	1.71E-04	1.20E-04	7.46E-06	1.69E-04	8.18E-05	5.94E-05
67	258683.3	4085132	9.17E-05	1.56E-03	1.06E-03	7.53E-04	9.17E-05	1.56E-03	1.06E-03	7.53E-04	1.39E-05	2.73E-04	1.74E-04	1.22E-04	7.57E-06	1.72E-04	8.30E-05	6.03E-05
68	258708.3	4085132	9.31E-05	1.59E-03	1.08E-03	7.64E-04	9.31E-05	1.59E-03	1.08E-03	7.64E-04	1.42E-05	2.77E-04	1.77E-04	1.24E-04	7.69E-06	1.74E-04	8.42E-05	6.12E-05
69	258733.3	4085132	9.45E-05	1.61E-03	1.09E-03	7.76E-04	9.45E-05	1.61E-03	1.09E-03	7.76E-04	1.44E-05	2.81E-04	1.79E-04	1.26E-04	7.80E-06	1.77E-04	8.55E-05	6.21E-05
70	258758.3	4085132	9.60E-05	1.64E-03	1.11E-03	7.88E-04	9.60E-05	1.64E-03	1.11E-03	7.88E-04	1.46E-05	2.86E-04	1.82E-04	1.28E-04	7.93E-06	1.80E-04	8.69E-05	6.31E-05
71	258783.3	4085132	9.75E-05	1.66E-03	1.13E-03	8.01E-04	9.75E-05	1.66E-03	1.13E-03	8.01E-04	1.48E-05	2.90E-04	1.85E-04	1.30E-04	8.05E-06	1.83E-04	8.83E-05	6.41E-05
72	258808.3	4085132	9.91E-05	1.69E-03	1.15E-03	8.14E-04	9.91E-05	1.69E-03	1.15E-03	8.14E-04	1.51E-05	2.95E-04	1.88E-04	1.32E-04	8.18E-06	1.85E-04	8.97E-05	6.51E-05
73	258833.3	4085132	1.01E-04	1.72E-03	1.16E-03	8.27E-04	1.01E-04	1.72E-03	1.16E-03	8.27E-04	1.53E-05	3.00E-04	1.91E-04	1.34E-04	8.32E-06	1.89E-04	9.12E-05	6.62E-05
74	258858.3	4085132	1.02E-04	1.75E-03	1.18E-03	8.41E-04	1.02E-04	1.75E-03	1.18E-03	8.41E-04	1.56E-05	3.05E-04	1.94E-04	1.36E-04	8.46E-06	1.92E-04	9.27E-05	6.73E-05
75	258883.3	4085132	1.04E-04	1.77E-03	1.20E-03	8.55E-04	1.04E-04	1.77E-03	1.20E-03	8.55E-04	1.58E-05	3.10E-04	1.97E-04	1.38E-04	8.59E-06	1.95E-04	9.42E-05	6.84E-05
76	258908.3	4085132	1.06E-04	1.80E-03	1.22E-03	8.69E-04	1.06E-04	1.80E-03	1.22E-03	8.69E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.73E-06	1.98E-04	9.57E-05	6.95E-05
77	258933.3	4085132	1.07E-04	1.83E-03	1.24E-03	8.83E-04	1.07E-04	1.83E-03	1.24E-03	8.83E-04	1.63E-05	3.20E-04	2.04E-04	1.43E-04	8.87E-06	2.01E-04	9.72E-05	7.06E-05
78	258958.3	4085132	1.09E-04	1.86E-03	1.26E-03	8.96E-04	1.09E-04	1.86E-03	1.26E-03	8.96E-04	1.66E-05	3.25E-04	2.07E-04	1.45E-04	9.01E-06	2.04E-04	9.87E-05	7.17E-05
79	258983.3	4085132	1.11E-04	1.89E-03	1.28E-03	9.09E-04	1.11E-04	1.89E-03	1.28E-03	9.09E-04	1.68E-05	3.29E-04	2.10E-04	1.47E-04	9.14E-06	2.07E-04	1.00E-04	7.27E-05
80	259008.3	4085132	1.12E-04	1.91E-03	1.29E-03	9.20E-04	1.12E-04	1.91E-03	1.29E-03	9.20E-04	1.70E-05	3.34E-04	2.13E-04	1.49E-04	9.25E-06	2.10E-04	1.01E-04	7.36E-05
81	259033.3	4085132	1.13E-04	1.93E-03	1.31E-03	9.29E-04	1.13E-04	1.93E-03	1.31E-03	9.29E-04	1.72E-05	3.37E-04	2.15E-04	1.50E-04	9.34E-06	2.12E-04	1.02E-04	7.43E-05
82	259058.3	4085132	1.14E-04	1.94E-03	1.31E-03	9.33E-04	1.14E-04	1.94E-03	1.31E-03	9.33E-04	1.73E-05	3.38E-04	2.16E-04	1.51E-04	9.38E-06	2.13E-04	1.03E-04	7.47E-05
83	259083.3	4085132	1.13E-04	1.93E-03	1.31E-03	9.31E-04	1.13E-04	1.93E-03	1.31E-03	9.31E-04	1.72E-05	3.37E-04	2.15E-04	1.51E-04	9.36E-06	2.12E-04	1.03E-04	7.45E-05
84	259108.3	4085132	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.24E-06	2.09E-04	1.01E-04	7.36E-05
85	259133.3	4085132	1.10E-04	1.87E-03	1.27E-03	9.00E-04	1.10E-04	1.87E-03	1.27E-03	9.00E-04	1.67E-05	3.26E-04	2.08E-04	1.46E-04	9.04E-06	2.05E-04	9.91E-05	7.20E-05
86	259158.3	4085132	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.74E-06	1.98E-04	9.58E-05	6.96E-05
87	259183.3	4085132	1.01E-04	1.72E-03	1.16E-03	8.27E-04	1.01E-04	1.72E-03	1.16E-03	8.27E-04	1.53E-05	3.00E-04	1.91E-04	1.34E-04	8.31E-06	1.88E-04	9.11E-05	6.62E-05
88	259208.3	4085132	9.40E-05	1.60E-03	1.09E-03	7.72E-04	9.40E-05	1.60E-03	1.09E-03	7.72E-04	1.43E-05	2.80E-04	1.78E-04	1.25E-04	7.77E-06	1.76E-04	8.51E-05	6.18E-05
89	259233.3	4085132	8.65E-05	1.48E-03	1.00E-03	7.11E-04	8.65E-05	1.48E-03	1.00E-03	7.11E-04	1.32E-05	2.58E-04	1.64E-04	1.15E-04	7.15E-06	1.62E-04	7.83E-05	5.69E-05
90	259258.3	4085132	7.87E-05	1.34E-03	9.09E-04	6.46E-04	7.87E-05	1.34E-03	9.09E-04	6.46E-04	1.20E-05	2.34E-04	1.49E-04	1.05E-04	6.50E-06	1.47E-04	7.12E-05	5.17E-05
91	259283.3	4085132	7.08E-05	1.21E-03	8.18E-04	5.81E-04	7.08E-05	1.21E-03	8.18E-04	5.81E-04	1.08E-05	2.11E-04	1.34E-04	9.41E-05	5.84E-06	1.32E-04	6.40E-05	4.65E-05
92	259308.3	4085132	6.32E-05	1.08E-03	7.30E-04	5.19E-04	6.32E-05	1.08E-03	7.30E-04	5.19E-04	9.61E-06	1.88E-04	1.20E-04	8.40E-05	5.22E-06	1.18E-04	5.72E-05	4.15E-05
93	259333.3	4085132	5.64E-05	9.62E-04	6.52E-04	4.64E-04	5.64E-05	9.62E-04	6.52E-04	4.64E-04	8.58E-06	1.68E-04	1.07E-04	7.51E-05	4.66E-06	1.06E-04	5.11E-05	3.71E-05
94	259358.3	4085132	5.07E-05	8.64E-04	5.85E-04	4.16E-04	5.07E-05	8.64E-04	5.85E-04	4.16E-04	7.70E-06	1.51E-04	9.61E-05	6.74E-05	4.18E-06	9.48E-05	4.58E-05	3.33E-05
95	259383.3	4085132	4.59E-05	7.82E-04	5.30E-04	3.77E-04	4.59E-05	7.82E-04	5.30E-04	3.77E-04	6.98E-06	1.37E-04	8.70E-05	6.10E-05	3.79E-06	8.58E-05	4.15E-05	3.02E-05
96	259408.3	4085132	4.19E-05	7.15E-04	4.85E-04	3.44E-04	4.19E-05	7.15E-04	4.85E-04	3.44E-04	6.37E-06	1.25E-04	7.95E-05	5.

111	259783.3	4085132	1.76E-05	3.01E-04	2.04E-04	1.45E-04	1.76E-05	3.01E-04	2.04E-04	1.45E-04	2.68E-06	5.25E-05	3.35E-05	2.35E-05	1.46E-06	3.30E-05	1.60E-05	1.16E-05
112	259808.3	4085132	1.71E-05	2.91E-04	1.97E-04	1.40E-04	1.71E-05	2.91E-04	1.97E-04	1.40E-04	2.59E-06	5.08E-05	3.24E-05	2.27E-05	1.41E-06	3.19E-05	1.54E-05	1.12E-05
113	259833.3	4085132	1.66E-05	2.83E-04	1.92E-04	1.36E-04	1.66E-05	2.83E-04	1.92E-04	1.36E-04	2.52E-06	4.94E-05	3.15E-05	2.21E-05	1.37E-06	3.11E-05	1.50E-05	1.09E-05
114	259858.3	4085132	1.62E-05	2.76E-04	1.87E-04	1.33E-04	1.62E-05	2.76E-04	1.87E-04	1.33E-04	2.46E-06	4.82E-05	3.07E-05	2.15E-05	1.34E-06	3.03E-05	1.46E-05	1.06E-05
115	259883.3	4085132	1.57E-05	2.67E-04	1.81E-04	1.29E-04	1.57E-05	2.67E-04	1.81E-04	1.29E-04	2.38E-06	4.67E-05	2.98E-05	2.09E-05	1.30E-06	2.93E-05	1.42E-05	1.03E-05
116	259908.3	4085132	1.52E-05	2.59E-04	1.75E-04	1.25E-04	1.52E-05	2.59E-04	1.75E-04	1.25E-04	2.31E-06	4.52E-05	2.88E-05	2.02E-05	1.25E-06	2.84E-05	1.37E-05	9.97E-06
117	259933.3	4085132	1.48E-05	2.52E-04	1.71E-04	1.21E-04	1.48E-05	2.52E-04	1.71E-04	1.21E-04	2.24E-06	4.40E-05	2.80E-05	1.96E-05	1.22E-06	2.76E-05	1.34E-05	9.70E-06
118	259958.3	4085132	1.44E-05	2.46E-04	1.67E-04	1.19E-04	1.44E-05	2.46E-04	1.67E-04	1.19E-04	2.20E-06	4.30E-05	2.74E-05	1.92E-05	1.19E-06	2.70E-05	1.31E-05	9.49E-06
119	259983.3	4085132	1.42E-05	2.41E-04	1.64E-04	1.16E-04	1.42E-05	2.41E-04	1.64E-04	1.16E-04	2.15E-06	4.21E-05	2.69E-05	1.88E-05	1.17E-06	2.65E-05	1.28E-05	9.30E-06
120	258508.3	4085157	7.87E-05	1.34E-03	9.10E-04	6.47E-04	7.87E-05	1.34E-03	9.10E-04	6.47E-04	1.20E-05	2.34E-04	1.49E-04	1.05E-04	6.50E-06	1.47E-04	7.13E-05	5.18E-05
121	258533.3	4085157	7.97E-05	1.36E-03	9.21E-04	6.55E-04	7.97E-05	1.36E-03	9.21E-04	6.55E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.58E-06	1.49E-04	7.21E-05	5.24E-05
122	258558.3	4085157	8.07E-05	1.38E-03	9.33E-04	6.63E-04	8.07E-05	1.38E-03	9.33E-04	6.63E-04	1.23E-05	2.40E-04	1.53E-04	1.07E-04	6.66E-06	1.51E-04	7.30E-05	5.31E-05
123	258583.3	4085157	8.17E-05	1.39E-03	9.44E-04	6.71E-04	8.17E-05	1.39E-03	9.44E-04	6.71E-04	1.24E-05	2.43E-04	1.55E-04	1.09E-04	6.75E-06	1.53E-04	7.39E-05	5.37E-05
124	258608.3	4085157	8.27E-05	1.41E-03	9.56E-04	6.80E-04	8.27E-05	1.41E-03	9.56E-04	6.80E-04	1.26E-05	2.46E-04	1.57E-04	1.10E-04	6.83E-06	1.55E-04	7.49E-05	5.44E-05
125	258633.3	4085157	8.38E-05	1.43E-03	9.69E-04	6.88E-04	8.38E-05	1.43E-03	9.69E-04	6.88E-04	1.27E-05	2.50E-04	1.59E-04	1.11E-04	6.92E-06	1.57E-04	7.58E-05	5.51E-05
126	258658.3	4085157	8.49E-05	1.45E-03	9.81E-04	6.97E-04	8.49E-05	1.45E-03	9.81E-04	6.97E-04	1.29E-05	2.53E-04	1.61E-04	1.13E-04	7.01E-06	1.59E-04	7.68E-05	5.58E-05
127	258683.3	4085157	8.6E-05	1.47E-03	9.94E-04	7.06E-04	8.60E-05	1.47E-03	9.94E-04	7.06E-04	1.31E-05	2.56E-04	1.63E-04	1.14E-04	7.10E-06	1.61E-04	7.78E-05	5.65E-05
128	258708.3	4085157	8.71E-05	1.49E-03	1.01E-03	7.16E-04	8.71E-05	1.49E-03	1.01E-03	7.16E-04	1.32E-05	2.59E-04	1.65E-04	1.16E-04	7.20E-06	1.63E-04	7.88E-05	5.73E-05
129	258733.3	4085157	8.83E-05	1.51E-03	1.02E-03	7.25E-04	8.83E-05	1.51E-03	1.02E-03	7.25E-04	1.34E-05	2.63E-04	1.68E-04	1.17E-04	7.29E-06	1.65E-04	7.99E-05	5.80E-05
130	258758.3	4085157	8.95E-05	1.53E-03	1.03E-03	7.35E-04	8.95E-05	1.53E-03	1.03E-03	7.35E-04	1.36E-05	2.66E-04	1.70E-04	1.19E-04	7.39E-06	1.67E-04	8.10E-05	5.88E-05
131	258783.3	4085157	9.07E-05	1.55E-03	1.05E-03	7.45E-04	9.07E-05	1.55E-03	1.05E-03	7.45E-04	1.38E-05	2.70E-04	1.72E-04	1.21E-04	7.49E-06	1.70E-04	8.21E-05	5.96E-05
132	258808.3	4085157	9.19E-05	1.57E-03	1.06E-03	7.55E-04	9.19E-05	1.57E-03	1.06E-03	7.55E-04	1.40E-05	2.74E-04	1.74E-04	1.22E-04	7.59E-06	1.72E-04	8.31E-05	6.04E-05
133	258833.3	4085157	9.31E-05	1.59E-03	1.08E-03	7.65E-04	9.31E-05	1.59E-03	1.08E-03	7.65E-04	1.42E-05	2.77E-04	1.77E-04	1.24E-04	7.69E-06	1.74E-04	8.42E-05	6.12E-05
134	258858.3	4085157	9.43E-05	1.61E-03	1.09E-03	7.74E-04	9.43E-05	1.61E-03	1.09E-03	7.74E-04	1.43E-05	2.81E-04	1.79E-04	1.25E-04	7.78E-06	1.76E-04	8.53E-05	6.20E-05
135	258883.3	4085157	9.54E-05	1.63E-03	1.10E-03	7.84E-04	9.54E-05	1.63E-03	1.10E-03	7.84E-04	1.45E-05	2.84E-04	1.81E-04	1.27E-04	7.88E-06	1.79E-04	8.63E-05	6.27E-05
136	258908.3	4085157	9.65E-05	1.65E-03	1.12E-03	7.93E-04	9.65E-05	1.65E-03	1.12E-03	7.93E-04	1.47E-05	2.87E-04	1.83E-04	1.28E-04	7.97E-06	1.81E-04	8.73E-05	6.34E-05
137	258933.3	4085157	9.75E-05	1.66E-03	1.13E-03	8.01E-04	9.75E-05	1.66E-03	1.13E-03	8.01E-04	1.48E-05	2.90E-04	1.85E-04	1.30E-04	8.05E-06	1.82E-04	8.82E-05	6.41E-05
138	258958.3	4085157	9.83E-05	1.68E-03	1.14E-03	8.08E-04	9.83E-05	1.68E-03	1.14E-03	8.08E-04	1.50E-05	2.93E-04	1.87E-04	1.31E-04	8.12E-06	1.84E-04	8.90E-05	6.46E-05
139	258983.3	4085157	9.9E-05	1.69E-03	1.14E-03	8.13E-04	9.90E-05	1.69E-03	1.14E-03	8.13E-04	1.51E-05	2.95E-04	1.88E-04	1.32E-04	8.17E-06	1.85E-04	8.96E-05	6.51E-05
140	259008.3	4085157	9.93E-05	1.69E-03	1.15E-03	8.16E-04	9.93E-05	1.69E-03	1.15E-03	8.16E-04	1.51E-05	2.96E-04	1.88E-04	1.32E-04	8.20E-06	1.86E-04	8.99E-05	6.53E-05
141	259033.3	4085157	9.93E-05	1.69E-03	1.15E-03	8.15E-04	9.93E-05	1.69E-03	1.15E-03	8.15E-04	1.51E-05	2.96E-04	1.88E-04	1.32E-04	8.20E-06	1.86E-04	8.98E-05	6.53E-05
142	259058.3	4085157	9.86E-05	1.68E-03	1.14E-03	8.10E-04	9.86E-05	1.68E-03	1.14E-03	8.10E-04	1.50E-05	2.94E-04	1.87E-04	1.31E-04	8.14E-06	1.84E-04	8.92E-05	6.48E-05
143	259083.3	4085157	9.71E-05	1.66E-03	1.12E-03	7.97E-04	9.71E-05	1.66E-03	1.12E-03	7.97E-04	1.48E-05	2.89E-04	1.84E-04	1.29E-04	8.02E-06	1.82E-04	8.79E-05	6.38E-05
144	259108.3	4085157	9.46E-05	1.61E-03	1.09E-03	7.77E-04	9.46E-05	1.61E-03	1.09E-03	7.77E-04	1.44E-05	2.82E-04	1.80E-04	1.26E-04	7.81E-06	1.77E-04	8.56E-05	6.22E-05
145	259133.3	4085157	9.13E-05	1.56E-03	1.05E-03	7.50E-04	9.13E-05	1.56E-03	1.05E-03	7.50E-04	1.39E-05	2.72E-04	1.73E-04	1.21E-04	7.54E-06	1.71E-04	8.26E-05	6.00E-05
146	259158.3	4085157	8.7E-05	1.48E-03	1.01E-03	7.15E-04	8.70E-05	1.48E-03	1.01E-03	7.15E-04	1.32E-05	2.59E-04	1.65E-04	1.16E-04	7.19E-06	1.63E-04	7.88E-05	5.72E-05
147	259183.3	4085157	8.19E-05	1.40E-03	9.47E-04	6.73E-04	8.19E-05	1.40E-03	9.47E-04	6.73E-04	1.25E-05	2.44E-04	1.55E-04	1.09E-04	6.77E-06	1.53E-04	7.42E-05	5.39E-05
148	259208.3	4085157	7.63E-05	1.30E-03	8.81E-04	6.26E-04	7.63E-05	1.30E-03	8.81E-04	6.26E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.30E-06	1.43E-04	6.90E-05	5.01E-05
149	259233.3	4085157	7.03E-05	1.20E-03	8.12E-04	5.77E-04	7.03E-05	1.20E-03	8.12E-04	5.77E-04	1.07E-05	2.09E-04	1.33E-04	9.35E-05	5.80E-06	1.32E-04	6.36E-05	4.62E-05
150	259258.3	4085157	6.43E-05	1.10E-03	7.43E-04	5.28E-04	6.43E-05	1.10E-03	7.43E-04	5.28E-04	9.77E-06	1.91E-04	1.22E-04	8.55E-05	5.31E-06	1.20E-04	5.82E-05	4.22E-05
151	259283.3	4085157	5.84E-05	9.95E-04	6.75E-04	4.80E-04	5.84E-05	9.95E-04	6.75E-04	4.80E-04	8.88E-06	1.74E-04	1.11E-04	7.76E-05	4.82E-06	1.09E-04	5.28E-05	3.84E-05
152	259308.3	4085157	5.29E-05	9.01E-04	6.11E-04	4.34E-04	5.29E-05	9.01E-04	6.11E-04	4.34E-04	8.04E-06	1.57E-04	1.00E-04	7.03E-05	4.37E-06	9.89E-05	4.79E-05	3.48E-05
153	259333.3	4085157	4.79E-05	8.17E-04	5.54E-04	3.94E-04	4.79E-05	8.17E-04	5.54E-04	3.94E-04	7.29E-06	1.43E-04	9.10E-05	6.38E-05	3.96E-06	8.97E-05	4.34E-05	3.15E-05
154	259358.3	4085157	4.36E-05	7.43E-04	5.04E-04	3.58E-04	4.36E-05	7.43E-04	5.04E-04	3.58E-04	6.63E-06	1.30E-04	8.27E-05	5.80E-05	3.60E-06	8.16E-05	3.94E-05	2.87E-05
155	259383.3	4085157	3.98E-05	6.79E-04	4.60E-04	3.27E-04	3.98E-05	6.79E-04	4.60E-04	3.27E-04	6.06E-06	1.19E-04	7.56E-05	5.30E-05	3.29E-06	7.46E-05	3.61E-05	2.62E-05
156	259408.3	4085157	3.67E-05	6.25E-04	4.24E-04	3.01E-04	3.67E-05	6.25E-04	4.24E-04	3.01E-04	5.58E-06	1.09E-04	6.96E-05	4.88E-05	3.03E-06	6.86E-05	3.32E-05	2.41E-05
157	259433.3	4085157	3.4E-05	5.80E-04	3.93E-04	2.79E-04	3.40E-05	5.80E-04	3.93E-04	2.79E-04	5.17E-06	1.01E-04	6.45E-05	4.52E-05	2.81E-06	6.37E-05	3.08E-05	2.24E-05
158	259458.3	4085157	3.17E-05	5.41E-04	3.67E-04	2.61E-04	3.17E-05	5.41E-04	3.67E-04	2.61E-04	4.82E-06	9.45E-05	6.02E-05	4.22E-05	2.62E-06	5.94E-05	2.87E-05	2.09E-05
159	259483.3	4085157	2.97E-05	5.06E-04	3.43E-04	2.44E-04	2.97E-05	5.06E-04	3.43E-04	2.44E-04	4.52E-06	8.85E-05	5.64E-05	3.95E-05	2.45E-06	5.56E-05	2.69E-05	1.95E-05
160	259508.3	4085157	2.79E-05	4.76E-04	3.23E-04	2.29E-04	2.79E-05	4.76E-04	3.23E-04	2.29E-04	4.25E-06	8.31E-05	5.30E-05	3.71E-05	2.31E-06	5.22E-05	2.53E-05	1.84E-05
161	259533.3	4085157	2.63E-05	4.49E-04	3.04E-04	2.16E-04	2.63E-05	4.49E-04	3.04E-04	2.16E-04	4.00E-06	7.83E-05	4.99E-05	3.50E-05	2.17E-06	4.92E-05	2.38E-05	1.73E-05
162	259558.3	4085157	2.49E-05	4.24E-04	2.87E-04	2.04E-04	2.49E-05	4.24E-04	2.87E-04	2.04E-04	3.78E-06	7.40E-05	4.72E-05	3.31E-05	2.05E-06	4.65E-05	2.25E-05	1.63E-05
163	259583.3	4085157	2.35E-05	4.01E-04	2.72E-04	1.93E-04	2.35E-05	4.01E-04	2.72E-04	1.93E-04	3.57E-06	7.00E-05	4.46E-05	3.13E-05	1.94E-06	4.40E-05	2.13E-05	1.54E-05
164	259608.3	4085157	2.23E-05	3.79E-04	2.57E-04	1.83E-04	2.23E-05	3.79E-04	2.57E-04	1.83E-04	3.38E-06	6.63E-05	4.22E-05	2.96E-05	1.84E-06	4.17E-05	2.01E-05	1.46E-05
165	259633.3	4085157	2.12E-05	3.62E-04	2.45E-04	1.74E-04	2.12E-05	3.62E-04	2.45E-04	1.74E-04	3.22E-06	6.31E-05	4.02E-05	2.82E-05	1.75E-06	3.97E-05	1.92E-05	1.39E-05
166	259658.3	4085157	2.03E-05	3.45E-04	2.34E-04	1.66E-04	2.03E-05	3.45E-04	2.34E-04	1.66E-04	3.08E-06	6.03E-05	3.84E-05	2.69E-05	1.67E-06	3.79E-05	1.83E-05	1.33E-05
167	259683.3	4085157	1.92E-05	3.28E-04	2.22E-04	1.58E-04	1.92E-05	3.28E-04	2.22E-04	1.58E-04	2.92E-06	5.72E-05	3.65E-05	2.55E-05	1.59E-06	3.60E-05	1.74E-05	1.26E-05
168	259708.3	4085157	1.84E-05	3.13E-04	2.12E-04	1.51E-04	1.84E-05	3.13E-04	2.12E-04	1.51E-04	2.79E-06	5.47E-05	3.48E-05	2.44E-05	1.52E-06	3.44E-05	1.66E-05	1.21E-05
169	259733.3	4085157	1.77E-05	3.02E-04	2.04E-04	1.45E-04	1.77E-05	3.02E-04	2.04E-04	1.45E-04	2.69E-06	5.27E-05	3.36E-05	2.35E-05	1.46E-06	3.31E-05	1.60E-05	1.16E-05
170	259758.3	4085157	1.71E-05	2.91E-04	1.97E-04	1.40E-04	1.71E-05	2.91E-04	1.97E-04	1.40E-04	2.60E-06	5.08E-05	3.24E-05	2.27E-05	1.41E-06	3.19E-05	1.54E-05	1.12E-05
171	259783.3	4085157	1.64E-05	2.80E-04	1.90E-04	1.35E-04	1.64E-05	2.80E-04	1.90E-04	1.35E-04	2.50E-06	4.89E-05	3.11E-05	2.18E-05	1.36E-06	3.07E-05	1.49E-05	1.08E-05
172	259808.3	4085157	1.59E-05	2.71E-04	1.84E-04	1.30E-04	1.59E-05	2.71E-04	1.84E-04	1.30E-04	2.42E-06	4.73E-05	3.01E-05	2.11E-05	1.31E-06	2.97E-05	1.44E-05	1.04E-05
173	259833.3	4085157	1.55E-05	2.64E-04	1.79E-04	1.27E-04	1.55E-05	2.64E-04	1.79E-04	1.27E-04	2.36E-06	4.61E-05	2.94E-05	2.06E-05	1.28E-06	2.90E-05	1.40E-05	1.02E-05
174	259858.3	4085157	1.51E-05	2.58E-04	1.75E-04	1.24E-04	1.51E-05	2.58E-04	1.75E-04	1.24E-04	2.30E-06	4.50E-05	2.87E-05	2.01E-05	1.25E-06	2.83E-05	1.37E-05	9.94E-06
175	259883.3	4085157	1.47E-05	2.50E-04	1.70E-04	1.21E-04	1.47E-05	2.50E-04	1.70E-04	1.21E-04	2.23E-06	4.37E-05	2.79E-05	1.95E-05	1.21E-06	2.75E-05	1.33E-05	9.65E-06
176	259908.3	4085157	1.42E-05	2.43E-04	1.65E-04	1.17E-04	1.42E-05	2.43E-04	1.65E-04	1.17E-04	2.17E-06	4.24E-05	2.70E-05	1.89E-05	1.18E-06	2.66E-05	1.29E-05	9.36E-06
177	259933.3	4085157	1.38E-05	2.36E-04	1.60E-04	1.14E-04	1.38E-05	2.36E-04	1.60E-04	1.14E-04	2.10E-06	4.12E-05	2.62E-05	1.84E-05	1.14E-06	2.59E-05	1.25E-05	9.09E-06
178	259958.3	4085157	1.35E-05	2.30E-04	1.56E-04	1.11E-04	1.35E-05	2.30E-04	1.56E-04	1.11E-04	2.05E-06	4.02E-05	2.56E-05	1.80E-05	1.12E-06	2.53E-05	1.22E-05	8.88E-06
179	259983.3	4085157	1.32E-05	2.26E-04	1.53E-04	1.09E-04	1.32E-05	2.26E-04	1.53E-04	1.09E-04	2.01E-06	3.94E-05	2.51E-05	1.76E-05	1.09E-06	2.48E-05	1.20E-05	8.71E-06
180	258508.3	4085182	7.46E-05	1.27E-03	8.62E-04	6.13E-04	7.46E-05	1.27E-03	8.62E-04	6.13E-04	1.13E-05	2.22E-04	1.41E-04	9.92E-05	6.16E-06	1.40E-04	6.75E-05	4.90E-05
181	258533.3	4085182	7.54E-05	1.29E-03	8.72E-04	6.19E-04	7.54E-05	1.29E-03	8.72E-04	6.19E-04	1.15E-05	2.25E-04	1.43E-04	1.00E-04	6.23E-06	1.41E-04	6.82E-05	4.96E-05
182	258558.3	4085182	7.62E-05	1.30E-03	8.81E-04	6.26E-04	7.62E-05	1.30E-03	8.81E-04	6.26E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.30E-06	1.43E-04	6.90E-05	5.01E-05
183	258583.3	4085182	7.71E-05	1.31E-03	8.91E-04	6.33E-04	7.71E-05	1.31E-03	8.91E-04	6.33E-04	1.17E-05	2.30E-04	1.46E-04	1.03E-04	6.37E-06	1.44E-04	6.98E-05	5.07E-05
184	258608.3	4085182	7.8E-05	1.33E-03	9.01E-04	6.40E-04	7.80E-05	1.33E-03	9.01E-04	6.40E-04	1.19E-05	2.32E-04	1.48E-04	1.04E-04	6.44E-06	1.46E-04	7.06E-05	5.12E-05
185	258633.3	4085182	7.88E-05	1.34E-03	9.11E-04	6.48E-04	7.88E-05	1.34E-03	9.11E-04	6.48E-04	1.20E-05	2.35E-04	1.50E-04	1.05E-04	6.51E-06	1.48E-04	7.13E-05	5.18E-05
186	258658.3	4085182	7.97E-05	1.36E-03	9.21E-04	6.55E-04	7.97E-05	1.36E-03	9.21E-04	6.55E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.58E-06	1.49E-04	7.21E-05	5.24E-05
187	258683.3	4085182	8.06E-05	1.37E-03	9.32E-04	6.62E-04	8.06E-05	1.37E-03	9.32E-04	6.62E-04	1.23E-05	2.40E-04	1.53E-04	1.07E-04	6.66E-06	1.51E-04	7.30E-05	5.30E-05
188	258708.3	4085182	8.15E-05	1.39E-03	9.42E-04	6.70E-04	8.15E-05	1.39E-03	9.42E-04	6.70E-04	1.24E-05	2.43E-04	1.55E-04	1.08E-04	6.73E-06	1.53E-04	7.38E-05	5.36E-05
189	258733.3	4085182	8.24E-05	1.41E-03	9.53E-04	6.77E-04	8.24E-05	1.41E-03	9.53E-04	6.77E-04	1.25E-05	2.45E-04	1.56E-04	1.10E-04	6.81E-06	1.54E-04	7.46E-05	5.42E-05
190	258758.3	4085182	8.33E-05	1.42E-03	9.63E-04	6.84E-04	8.33E-05	1.42E-03	9.63E-04	6.84E-04	1.27E-05	2.48E-04	1.58E-04	1.11E-04	6.88E-06	1.56E-04	7.54E-05	5.48E-05
191	258783.3	4085182	8.42E-05	1.44E-03	9.73E-04	6.92E-04	8.42E-05	1.44E-03	9.73E-04	6.92E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.95E-06	1.58E-04	7.62E-05	5.53E-05
192	258808.3	4085182	8.5E-05	1.45E-03	9.83E-04	6.99E-04	8.50E-05	1.45E-03	9.83E-04	6.99E-04	1.29E-05	2.53E-04	1.61E-04	1.13E-04	7.02E-06	1.59E-04	7.70E-05	5.59E-05
193	258833.3	4085182	8.59E-05	1.46E-03	9.92E-04	7.05E-04	8.59E-05	1.46E-03	9.92E-04	7.05E-04	1.31E-05	2.56E-04	1.63E-04	1.14E-04	7.09E-06	1.61E-04	7.77E-05	5.64E-05
194	258858.3	4085182	8.66E-05	1.48E-03	1.00E-03	7.11E-04	8.66E-05	1.48E-03	1.00E-03	7.11E-04	1.32E-05	2.58E-04	1.64E-04	1.15E-04	7.15E-06	1.62E-04	7.84E-05	5.69E-05
195	258883.3	4085182	8.72E-05	1.49E-03	1.01E-03	7.17E-04	8.72E-05	1.49E-03	1.01E-03	7.17E-04	1.33E-05	2.60E-04	1.66E-04	1.16E-04	7.21E-06	1.63E-04	7.90E-05	5.74E-05
196	258908.3	4085182	8.78E-05	1.50E-03	1.01E-03	7.21E-04	8.78E-05	1.50E-03	1.01E-03	7.21E-04	1.33E-05	2.61E-04	1.67E-04	1.17E-04	7.25E-06	1.64E-04	7.94E-05	5.77E-05
197	258933.3	4085182	8.81E-05	1.50E-03	1.02E-03	7.24E-04	8.81E-05	1.50E-03	1.02E-03	7.24E-04	1.34E-05	2.62E-04	1.67E-04	1.17E-04	7.28E-06	1.65E-04	7.98E-05	5.79E-05
198	258958.3	4085182	8.83E-05	1.51E-03	1.02E-03	7.25E-04	8.83E-05	1.51E-03	1.02E-03	7.25E-04	1.34E-05	2.63E-04	1.68E-04	1.17E-04	7.29E-06	1.65E-04	7.99E-05	5.80E-05
199	258983.3	4085182	8.82E-05	1.50E-03	1.02E-03	7.24E-04	8.82E-05	1.50E-03	1.02E-03	7.24E-04	1.34E-05	2.63E-04	1.67E-04	1.17E-04	7.28E-06	1.65E-04	7.98E-05	5.79E-05
200	259008.3	4085182	8.76E-05	1.49E-03	1.01E-03	7.20E-04	8.76E-05	1.49E-03	1.01E-03	7.20E-04	1.33E-05	2.61E-04	1.66E-04	1.17E-04	7.24E-06	1.64E-04	7.93E-05	5.76E-05
201	259033.3	4085182	8.67E-05	1.48E-03	1.00E-03	7.12E-04	8.67E-05	1.48E-03	1.00E-03	7.12E-04	1.32E-05	2.58E-04	1.64E-04	1.15E-04	7.16E-06	1.62E-04	7.84E-05	5.70E-05
202	259058.3	4085182	8.51E-05	1.45E-03	9.84E-04	6.99E-04	8.51E-05	1.45E-03	9.84E-04	6.99E-04	1.29E-05	2.53E-04	1.62E-04	1.13E-04	7.03E-06	1.59E-04	7.70E-05	5.60E-05
203	259083.3	4085182	8.29E-05	1.41E-03	9.58E-04	6.81E-04	8.29E-05	1.41E-03	9.58E-04	6.81E-04	1.26E-05	2.47E-04	1.57E-04	1.10E-04	6.85E-06	1.55E-04	7.50E-05	5.45E-05
204	259108.3	4085182	8E-05	1.36E-03	9.25E-04	6.57E-04	8.00E-05	1.36E-03	9.25E-04	6.57E-04	1.22E-05	2.38E-04	1.52E-04	1.06E-04	6.61E-06	1.50E-04	7.24E-05	5.26E-05
205	259133.3	4085182	7.66E-05	1.31E-03	8.85E-04	6.29E-04	7.66E-05	1.31E-03	8.85E-04	6.29E-04	1.16E-05	2.28E-04	1.45E-04	1.02E-04	6.32E-06	1.43E-04	6.93E-05	5.03E-05
206	259158.3	4085182	7.25E-05	1.24E-03	8.38E-04	5.96E-04	7.25E-05	1.24E-03	8.38E-04	5.96E-04	1.10E-05	2.16E-04	1.38E-04	9.65E-05	5.99E-06	1.36E-04	6.56E-05	4.77E-05
207	259183.3	4085182	6.81E-05	1.16E-03	7.87E-04	5.59E-04	6.81E-05	1.16E-03	7.87E-04	5.59E-04	1.03E-05	2.03E-04	1.29E-04	9.05E-05	5.62E-06	1.27E-04	6.16E-05	4.47E-05
208	259208.3	4085182	6.34E-05	1.08E-03	7.33E-04	5.21E-04	6.34E-05	1.08E-03	7.33

224	259608.3	4085182	2.06E-05	3.51E-04	2.38E-04	1.69E-04	2.06E-05	3.51E-04	2.38E-04	1.69E-04	3.13E-06	6.13E-05	3.91E-05	2.74E-05	1.70E-06	3.86E-05	1.86E-05	1.35E-05
225	259633.3	4085182	1.97E-05	3.35E-04	2.27E-04	1.62E-04	1.97E-05	3.35E-04	2.27E-04	1.62E-04	2.99E-06	5.86E-05	3.73E-05	2.62E-05	1.62E-06	3.68E-05	1.78E-05	1.29E-05
226	259658.3	4085182	1.88E-05	3.21E-04	2.18E-04	1.55E-04	1.88E-05	3.21E-04	2.18E-04	1.55E-04	2.86E-06	5.61E-05	3.57E-05	2.50E-05	1.55E-06	3.52E-05	1.70E-05	1.24E-05
227	259683.3	4085182	1.81E-05	3.08E-04	2.09E-04	1.48E-04	1.81E-05	3.08E-04	2.09E-04	1.48E-04	2.75E-06	5.38E-05	3.43E-05	2.40E-05	1.49E-06	3.38E-05	1.63E-05	1.19E-05
228	259708.3	4085182	1.72E-05	2.94E-04	1.99E-04	1.41E-04	1.72E-05	2.94E-04	1.99E-04	1.41E-04	2.62E-06	5.13E-05	3.27E-05	2.29E-05	1.42E-06	3.22E-05	1.56E-05	1.13E-05
229	259733.3	4085182	1.65E-05	2.82E-04	1.91E-04	1.36E-04	1.65E-05	2.82E-04	1.91E-04	1.36E-04	2.51E-06	4.92E-05	3.13E-05	2.20E-05	1.36E-06	3.09E-05	1.50E-05	1.09E-05
230	259758.3	4085182	1.59E-05	2.71E-04	1.84E-04	1.31E-04	1.59E-05	2.71E-04	1.84E-04	1.31E-04	2.42E-06	4.74E-05	3.02E-05	2.12E-05	1.31E-06	2.98E-05	1.44E-05	1.05E-05
231	259783.3	4085182	1.53E-05	2.61E-04	1.77E-04	1.26E-04	1.53E-05	2.61E-04	1.77E-04	1.26E-04	2.33E-06	4.57E-05	2.91E-05	2.04E-05	1.27E-06	2.87E-05	1.39E-05	1.01E-05
232	259808.3	4085182	1.49E-05	2.53E-04	1.72E-04	1.22E-04	1.49E-05	2.53E-04	1.72E-04	1.22E-04	2.26E-06	4.42E-05	2.82E-05	1.98E-05	1.23E-06	2.78E-05	1.34E-05	9.77E-06
233	259833.3	4085182	1.45E-05	2.47E-04	1.68E-04	1.19E-04	1.45E-05	2.47E-04	1.68E-04	1.19E-04	2.20E-06	4.32E-05	2.75E-05	1.93E-05	1.20E-06	2.71E-05	1.31E-05	9.53E-06
234	259858.3	4085182	1.42E-05	2.41E-04	1.64E-04	1.16E-04	1.42E-05	2.41E-04	1.64E-04	1.16E-04	2.15E-06	4.22E-05	2.69E-05	1.88E-05	1.17E-06	2.65E-05	1.28E-05	9.31E-06
235	259883.3	4085182	1.38E-05	2.35E-04	1.59E-04	1.13E-04	1.38E-05	2.35E-04	1.59E-04	1.13E-04	2.09E-06	4.10E-05	2.61E-05	1.83E-05	1.14E-06	2.58E-05	1.25E-05	9.06E-06
236	259908.3	4085182	1.34E-05	2.28E-04	1.55E-04	1.10E-04	1.34E-05	2.28E-04	1.55E-04	1.10E-04	2.03E-06	3.98E-05	2.54E-05	1.78E-05	1.10E-06	2.50E-05	1.21E-05	8.79E-06
237	259933.3	4085182	1.3E-05	2.22E-04	1.50E-04	1.07E-04	1.30E-05	2.22E-04	1.50E-04	1.07E-04	1.98E-06	3.87E-05	2.47E-05	1.73E-05	1.07E-06	2.43E-05	1.18E-05	8.55E-06
238	259958.3	4085182	1.27E-05	2.17E-04	1.47E-04	1.04E-04	1.27E-05	2.17E-04	1.47E-04	1.04E-04	1.93E-06	3.78E-05	2.41E-05	1.69E-05	1.05E-06	2.38E-05	1.15E-05	8.35E-06
239	259983.3	4085182	1.24E-05	2.12E-04	1.44E-04	1.02E-04	1.24E-05	2.12E-04	1.44E-04	1.02E-04	1.89E-06	3.70E-05	2.36E-05	1.65E-05	1.03E-06	2.33E-05	1.13E-05	8.17E-06
240	258508.3	4085207	7.06E-05	1.20E-03	8.16E-04	5.80E-04	7.06E-05	1.20E-03	8.16E-04	5.80E-04	1.07E-05	2.10E-04	1.34E-04	9.39E-05	5.83E-06	1.32E-04	6.39E-05	4.64E-05
241	258533.3	4085207	7.13E-05	1.22E-03	8.24E-04	5.86E-04	7.13E-05	1.22E-03	8.24E-04	5.86E-04	1.08E-05	2.12E-04	1.35E-04	9.49E-05	5.89E-06	1.33E-04	6.45E-05	4.69E-05
242	258558.3	4085207	7.2E-05	1.23E-03	8.32E-04	5.92E-04	7.20E-05	1.23E-03	8.32E-04	5.92E-04	1.10E-05	2.14E-04	1.37E-04	9.58E-05	5.95E-06	1.35E-04	6.52E-05	4.73E-05
243	258583.3	4085207	7.27E-05	1.24E-03	8.41E-04	5.97E-04	7.27E-05	1.24E-03	8.41E-04	5.97E-04	1.11E-05	2.17E-04	1.38E-04	9.67E-05	6.01E-06	1.36E-04	6.58E-05	4.78E-05
244	258608.3	4085207	7.34E-05	1.25E-03	8.49E-04	6.03E-04	7.34E-05	1.25E-03	8.49E-04	6.03E-04	1.12E-05	2.19E-04	1.39E-04	9.77E-05	6.06E-06	1.37E-04	6.65E-05	4.83E-05
245	258633.3	4085207	7.41E-05	1.26E-03	8.57E-04	6.09E-04	7.41E-05	1.26E-03	8.57E-04	6.09E-04	1.13E-05	2.21E-04	1.41E-04	9.86E-05	6.12E-06	1.39E-04	6.71E-05	4.87E-05
246	258658.3	4085207	7.48E-05	1.28E-03	8.65E-04	6.15E-04	7.48E-05	1.28E-03	8.65E-04	6.15E-04	1.14E-05	2.23E-04	1.42E-04	9.95E-05	6.18E-06	1.40E-04	6.77E-05	4.92E-05
247	258683.3	4085207	7.55E-05	1.29E-03	8.73E-04	6.20E-04	7.55E-05	1.29E-03	8.73E-04	6.20E-04	1.15E-05	2.25E-04	1.43E-04	1.00E-04	6.24E-06	1.41E-04	6.84E-05	4.96E-05
248	258708.3	4085207	7.62E-05	1.30E-03	8.81E-04	6.26E-04	7.62E-05	1.30E-03	8.81E-04	6.26E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.29E-06	1.43E-04	6.90E-05	5.01E-05
249	258733.3	4085207	7.69E-05	1.31E-03	8.88E-04	6.31E-04	7.69E-05	1.31E-03	8.88E-04	6.31E-04	1.17E-05	2.29E-04	1.46E-04	1.02E-04	6.35E-06	1.44E-04	6.96E-05	5.05E-05
250	258758.3	4085207	7.75E-05	1.32E-03	8.96E-04	6.36E-04	7.75E-05	1.32E-03	8.96E-04	6.36E-04	1.18E-05	2.31E-04	1.47E-04	1.03E-04	6.40E-06	1.45E-04	7.01E-05	5.09E-05
251	258783.3	4085207	7.81E-05	1.33E-03	9.02E-04	6.41E-04	7.81E-05	1.33E-03	9.02E-04	6.41E-04	1.19E-05	2.32E-04	1.48E-04	1.04E-04	6.45E-06	1.46E-04	7.07E-05	5.13E-05
252	258808.3	4085207	7.86E-05	1.34E-03	9.08E-04	6.46E-04	7.86E-05	1.34E-03	9.08E-04	6.46E-04	1.20E-05	2.34E-04	1.49E-04	1.05E-04	6.49E-06	1.47E-04	7.11E-05	5.17E-05
253	258833.3	4085207	7.9E-05	1.35E-03	9.14E-04	6.49E-04	7.90E-05	1.35E-03	9.14E-04	6.49E-04	1.20E-05	2.35E-04	1.50E-04	1.05E-04	6.53E-06	1.48E-04	7.15E-05	5.20E-05
254	258858.3	4085207	7.94E-05	1.35E-03	9.18E-04	6.52E-04	7.94E-05	1.35E-03	9.18E-04	6.52E-04	1.21E-05	2.36E-04	1.51E-04	1.06E-04	6.56E-06	1.49E-04	7.18E-05	5.22E-05
255	258883.3	4085207	7.96E-05	1.36E-03	9.20E-04	6.54E-04	7.96E-05	1.36E-03	9.20E-04	6.54E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.57E-06	1.49E-04	7.20E-05	5.23E-05
256	258908.3	4085207	7.96E-05	1.36E-03	9.20E-04	6.54E-04	7.96E-05	1.36E-03	9.20E-04	6.54E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.58E-06	1.49E-04	7.21E-05	5.24E-05
257	258933.3	4085207	7.95E-05	1.35E-03	9.18E-04	6.53E-04	7.95E-05	1.35E-03	9.18E-04	6.53E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.56E-06	1.49E-04	7.19E-05	5.22E-05
258	258958.3	4085207	7.9E-05	1.35E-03	9.13E-04	6.49E-04	7.90E-05	1.35E-03	9.13E-04	6.49E-04	1.20E-05	2.35E-04	1.50E-04	1.05E-04	6.53E-06	1.48E-04	7.15E-05	5.20E-05
259	258983.3	4085207	7.83E-05	1.33E-03	9.05E-04	6.43E-04	7.83E-05	1.33E-03	9.05E-04	6.43E-04	1.19E-05	2.33E-04	1.49E-04	1.04E-04	6.46E-06	1.46E-04	7.08E-05	5.15E-05
260	259008.3	4085207	7.72E-05	1.32E-03	8.92E-04	6.34E-04	7.72E-05	1.32E-03	8.92E-04	6.34E-04	1.17E-05	2.30E-04	1.46E-04	1.03E-04	6.37E-06	1.44E-04	6.98E-05	5.07E-05
261	259033.3	4085207	7.45E-05	1.27E-03	8.61E-04	6.12E-04	7.45E-05	1.27E-03	8.61E-04	6.12E-04	1.13E-05	2.22E-04	1.41E-04	9.91E-05	6.15E-06	1.39E-04	6.74E-05	4.90E-05
262	259058.3	4085207	7.25E-05	1.24E-03	8.38E-04	5.96E-04	7.25E-05	1.24E-03	8.38E-04	5.96E-04	1.10E-05	2.16E-04	1.38E-04	9.64E-05	5.99E-06	1.36E-04	6.56E-05	4.77E-05
263	259083.3	4085207	7.01E-05	1.20E-03	8.10E-04	5.76E-04	7.01E-05	1.20E-03	8.10E-04	5.76E-04	1.07E-05	2.09E-04	1.33E-04	9.32E-05	5.79E-06	1.31E-04	6.34E-05	4.61E-05
264	259108.3	4085207	6.73E-05	1.15E-03	7.78E-04	5.53E-04	6.73E-05	1.15E-03	7.78E-04	5.53E-04	1.02E-05	2.00E-04	1.28E-04	8.95E-05	5.56E-06	1.26E-04	6.09E-05	4.42E-05
265	259133.3	4085207	6.41E-05	1.09E-03	7.41E-04	5.27E-04	6.41E-05	1.09E-03	7.41E-04	5.27E-04	9.75E-06	1.91E-04	1.22E-04	8.53E-05	5.30E-06	1.20E-04	5.80E-05	4.22E-05
266	259158.3	4085207	6.07E-05	1.03E-03	7.01E-04	4.99E-04	6.07E-05	1.03E-03	7.01E-04	4.99E-04	9.23E-06	1.81E-04	1.15E-04	8.07E-05	5.01E-06	1.14E-04	5.49E-05	3.99E-05
267	259183.3	4085207	5.7E-05	9.72E-04	6.59E-04	4.68E-04	5.70E-05	9.72E-04	6.59E-04	4.68E-04	8.67E-06	1.70E-04	1.08E-04	7.58E-05	4.71E-06	1.07E-04	5.16E-05	3.75E-05
268	259208.3	4085207	5.33E-05	9.09E-04	6.16E-04	4.38E-04	5.33E-05	9.09E-04	6.16E-04	4.38E-04	8.10E-06	1.59E-04	1.01E-04	7.09E-05	4.40E-06	9.97E-05	4.82E-05	3.50E-05
269	259233.3	4085207	4.96E-05	8.46E-04	5.74E-04	4.08E-04	4.96E-05	8.46E-04	5.74E-04	4.08E-04	7.55E-06	1.48E-04	9.42E-05	6.60E-05	4.10E-06	9.29E-05	4.49E-05	3.26E-05
270	259258.3	4085207	4.67E-05	7.96E-04	5.40E-04	3.83E-04	4.67E-05	7.96E-04	5.40E-04	3.83E-04	7.10E-06	1.39E-04	8.86E-05	6.21E-05	3.86E-06	8.74E-05	4.22E-05	3.07E-05
271	259283.3	4085207	4.32E-05	7.36E-04	4.99E-04	3.55E-04	4.32E-05	7.36E-04	4.99E-04	3.55E-04	6.57E-06	1.29E-04	8.19E-05	5.74E-05	3.57E-06	8.08E-05	3.91E-05	2.84E-05
272	259308.3	4085207	3.99E-05	6.80E-04	4.61E-04	3.28E-04	3.99E-05	6.80E-04	4.61E-04	3.28E-04	6.07E-06	1.19E-04	7.57E-05	5.31E-05	3.30E-06	7.47E-05	3.61E-05	2.62E-05
273	259333.3	4085207	3.7E-05	6.30E-04	4.27E-04	3.04E-04	3.70E-05	6.30E-04	4.27E-04	3.04E-04	5.62E-06	1.10E-04	7.01E-05	4.91E-05	3.05E-06	6.92E-05	3.34E-05	2.43E-05
274	259358.3	4085207	3.43E-05	5.85E-04	3.96E-04	2.82E-04	3.43E-05	5.85E-04	3.96E-04	2.82E-04	5.22E-06	1.02E-04	6.51E-05	4.56E-05	2.83E-06	6.42E-05	3.10E-05	2.25E-05
275	259383.3	4085207	3.19E-05	5.43E-04	3.68E-04	2.62E-04	3.19E-05	5.43E-04	3.68E-04	2.62E-04	4.85E-06	9.49E-05	6.05E-05	4.24E-05	2.63E-06	5.97E-05	2.89E-05	2.10E-05
276	259408.3	4085207	2.97E-05	5.06E-04	3.43E-04	2.44E-04	2.97E-05	5.06E-04	3.43E-04	2.44E-04	4.51E-06	8.84E-05	5.63E-05	3.95E-05	2.45E-06	5.55E-05	2.69E-05	1.95E-05
277	259433.3	4085207	2.77E-05	4.73E-04	3.21E-04	2.28E-04	2.77E-05	4.73E-04	3.21E-04	2.28E-04	4.22E-06	8.26E-05	5.26E-05	3.69E-05	2.29E-06	5.19E-05	2.51E-05	1.82E-05
278	259458.3	4085207	2.6E-05	4.44E-04	3.01E-04	2.14E-04	2.60E-05	4.44E-04	3.01E-04	2.14E-04	3.96E-06	7.75E-05	4.94E-05	3.46E-05	2.15E-06	4.87E-05	2.36E-05	1.71E-05
279	259483.3	4085207	2.45E-05	4.18E-04	2.83E-04	2.01E-04	2.45E-05	4.18E-04	2.83E-04	2.01E-04	3.73E-06	7.30E-05	4.65E-05	3.26E-05	2.03E-06	4.59E-05	2.22E-05	1.61E-05
280	259508.3	4085207	2.32E-05	3.95E-04	2.68E-04	1.91E-04	2.32E-05	3.95E-04	2.68E-04	1.91E-04	3.53E-06	6.91E-05	4.40E-05	3.09E-05	1.92E-06	4.34E-05	2.10E-05	1.52E-05
281	259533.3	4085207	2.2E-05	3.75E-04	2.54E-04	1.81E-04	2.20E-05	3.75E-04	2.54E-04	1.81E-04	3.35E-06	6.55E-05	4.18E-05	2.93E-05	1.82E-06	4.12E-05	1.99E-05	1.45E-05
282	259558.3	4085207	2.09E-05	3.57E-04	2.42E-04	1.72E-04	2.09E-05	3.57E-04	2.42E-04	1.72E-04	3.18E-06	6.23E-05	3.97E-05	2.78E-05	1.73E-06	3.92E-05	1.89E-05	1.38E-05
283	259583.3	4085207	1.99E-05	3.40E-04	2.31E-04	1.64E-04	1.99E-05	3.40E-04	2.31E-04	1.64E-04	3.03E-06	5.94E-05	3.78E-05	2.65E-05	1.65E-06	3.73E-05	1.81E-05	1.31E-05
284	259608.3	4085207	1.91E-05	3.25E-04	2.20E-04	1.57E-04	1.91E-05	3.25E-04	2.20E-04	1.57E-04	2.90E-06	5.67E-05	3.62E-05	2.53E-05	1.57E-06	3.57E-05	1.72E-05	1.25E-05
285	259633.3	4085207	1.82E-05	3.11E-04	2.11E-04	1.50E-04	1.82E-05	3.11E-04	2.11E-04	1.50E-04	2.77E-06	5.43E-05	3.46E-05	2.43E-05	1.51E-06	3.41E-05	1.65E-05	1.20E-05
286	259658.3	4085207	1.75E-05	2.98E-04	2.02E-04	1.44E-04	1.75E-05	2.98E-04	2.02E-04	1.44E-04	2.66E-06	5.21E-05	3.32E-05	2.33E-05	1.44E-06	3.27E-05	1.58E-05	1.15E-05
287	259683.3	4085207	1.68E-05	2.86E-04	1.94E-04	1.38E-04	1.68E-05	2.86E-04	1.94E-04	1.38E-04	2.56E-06	5.00E-05	3.19E-05	2.23E-05	1.39E-06	3.14E-05	1.52E-05	1.10E-05
288	259708.3	4085207	1.61E-05	2.74E-04	1.86E-04	1.32E-04	1.61E-05	2.74E-04	1.86E-04	1.32E-04	2.44E-06	4.78E-05	3.05E-05	2.14E-05	1.33E-06	3.01E-05	1.45E-05	1.06E-05
289	259733.3	4085207	1.55E-05	2.64E-04	1.79E-04	1.27E-04	1.55E-05	2.64E-04	1.79E-04	1.27E-04	2.35E-06	4.61E-05	2.94E-05	2.06E-05	1.28E-06	2.90E-05	1.40E-05	1.02E-05
290	259758.3	4085207	1.5E-05	2.55E-04	1.73E-04	1.23E-04	1.50E-05	2.55E-04	1.73E-04	1.23E-04	2.28E-06	4.46E-05	2.84E-05	1.99E-05	1.24E-06	2.80E-05	1.35E-05	9.84E-06
291	259783.3	4085207	1.44E-05	2.46E-04	1.67E-04	1.19E-04	1.44E-05	2.46E-04	1.67E-04	1.19E-04	2.19E-06	4.30E-05	2.74E-05	1.92E-05	1.19E-06	2.70E-05	1.31E-05	9.49E-06
292	259808.3	4085207	1.4E-05	2.39E-04	1.62E-04	1.15E-04	1.40E-05	2.39E-04	1.62E-04	1.15E-04	2.13E-06	4.17E-05	2.66E-05	1.86E-05	1.16E-06	2.62E-05	1.27E-05	9.21E-06
293	259833.3	4085207	1.36E-05	2.32E-04	1.57E-04	1.12E-04	1.36E-05	2.32E-04	1.57E-04	1.12E-04	2.07E-06	4.05E-05	2.58E-05	1.81E-05	1.12E-06	2.55E-05	1.23E-05	8.95E-06
294	259858.3	4085207	1.33E-05	2.27E-04	1.54E-04	1.09E-04	1.33E-05	2.27E-04	1.54E-04	1.09E-04	2.02E-06	3.96E-05	2.52E-05	1.77E-05	1.10E-06	2.49E-05	1.20E-05	8.74E-06
295	259883.3	4085207	1.3E-05	2.21E-04	1.50E-04	1.07E-04	1.30E-05	2.21E-04	1.50E-04	1.07E-04	1.97E-06	3.86E-05	2.46E-05	1.73E-05	1.07E-06	2.43E-05	1.17E-05	8.53E-06
296	259908.3	4085207	1.26E-05	2.15E-04	1.46E-04	1.04E-04	1.26E-05	2.15E-04	1.46E-04	1.04E-04	1.92E-06	3.76E-05	2.40E-05	1.68E-05	1.04E-06	2.36E-05	1.14E-05	8.31E-06
297	259933.3	4085207	1.23E-05	2.10E-04	1.42E-04	1.01E-04	1.23E-05	2.10E-04	1.42E-04	1.01E-04	1.87E-06	3.66E-05	2.33E-05	1.64E-05	1.02E-06	2.30E-05	1.11E-05	8.08E-06
298	259958.3	4085207	1.2E-05	2.04E-04	1.38E-04	9.84E-05	1.20E-05	2.04E-04	1.38E-04	9.84E-05	1.82E-06	3.57E-05	2.27E-05	1.59E-05	9.90E-07	2.24E-05	1.08E-05	7.88E-06
299	259983.3	4085207	1.17E-05	2.00E-04	1.36E-04	9.64E-05	1.17E-05	2.00E-04	1.36E-04	9.64E-05	1.78E-06	3.49E-05	2.23E-05	1.56E-05	9.69E-07	2.20E-05	1.06E-05	7.71E-06
300	258508.3	4085232	6.69E-05	1.14E-03	7.73E-04	5.49E-04	6.69E-05	1.14E-03	7.73E-04	5.49E-04	1.02E-05	1.99E-04	1.27E-04	8.89E-05	5.52E-06	1.25E-04	6.05E-05	4.40E-05
301	258533.3	4085232	6.75E-05	1.15E-03	7.80E-04	5.54E-04	6.75E-05	1.15E-03	7.80E-04	5.54E-04	1.03E-05	2.01E-04	1.28E-04	8.97E-05	5.57E-06	1.26E-04	6.10E-05	4.43E-05
302	258558.3	4085232	6.8E-05	1.16E-03	7.86E-04	5.59E-04	6.80E-05	1.16E-03	7.86E-04	5.59E-04	1.03E-05	2.03E-04	1.29E-04	9.05E-05	5.62E-06	1.27E-04	6.16E-05	4.47E-05
303	258583.3	4085232	6.86E-05	1.17E-03	7.93E-04	5.63E-04	6.86E-05	1.17E-03	7.93E-04	5.63E-04	1.04E-05	2.04E-04	1.30E-04	9.12E-05	5.66E-06	1.28E-04	6.21E-05	4.51E-05
304	258608.3	4085232	6.91E-05	1.18E-03	7.99E-04	5.68E-04	6.91E-05	1.18E-03	7.99E-04	5.68E-04	1.05E-05	2.06E-04	1.31E-04	9.20E-05	5.71E-06	1.29E-04	6.26E-05	4.55E-05
305	258633.3	4085232	6.97E-05	1.19E-03	8.05E-04	5.72E-04	6.97E-05	1.19E-03	8.05E-04	5.72E-04	1.06E-05	2.08E-04	1.32E-04	9.27E-05	5.75E-06	1.30E-04	6.31E-05	4.58E-05
306	258658.3	4085232	7.02E-05	1.20E-03	8.11E-04	5.77E-04	7.02E-05	1.20E-03	8.11E-04	5.77E-04	1.07E-05	2.09E-04	1.33E-04	9.34E-05	5.80E-06	1.31E-04	6.35E-05	4.62E-05
307	258683.3	4085232	7.07E-05	1.21E-03	8.17E-04	5.81E-04	7.07E-05	1.21E-03	8.17E-04	5.81E-04	1.08E-05	2.11E-04	1.34E-04	9.40E-05	5.84E-06	1.32E-04	6.40E-05	4.65E-05
308	258708.3	4085232	7.12E-05	1.21E-03	8.23E-04	5.85E-04	7.12E-05	1.21E-03	8.23E-04	5.85E-04	1.08E-05	2.12E-04	1.35E-04	9.47E-05	5.88E-06	1.33E-04	6.44E-05	4.68E-05
309	258733.3	4085232	7.16E-05	1.22E-03	8.28E-04	5.88E-04	7.16E-05	1.22E-03	8.28E-04	5.88E-04	1.09E-05	2.13E-04	1.36E-04	9.52E-05	5.91E-06	1.34E-04	6.48E-05	4.71E-05
310	258758.3	4085232	7.2E-05	1.23E-03	8.32E-04	5.91E-04	7.20E-05	1.23E-03	8.32E-04	5.91E-04	1.09E-05	2.14E-04	1.37E-04	9.57E-05	5.94E-06	1.35E-04	6.51E-05	4.73E-05
311	258783.3	4085232	7.23E-05	1.23E-03	8.36E-04	5.94E-04	7.23E-05	1.23E-03	8.36E-04	5.94E-04	1.10E-05	2.15E-04	1.37E-04	9.62E-05	5.97E-06	1.35E-04	6.54E-05	4.75E-05
312	258808.3	4085232	7.25E-05	1.24E-03	8.38E-04	5.96E-04	7.25E-05	1.24E-03	8.38E-04	5.96E-04	1.10E-05	2.16E-04	1.38E-04	9.65E-05	5.99E-06	1.36E-04	6.56E-05	4.77E-05
313	258833.3	4085232	7.27E-05	1.24E-03	8.40E-04	5.97E-04	7.27E-05	1.24E-03	8.40E-04	5.97E-04	1.10E-05	2.16E-04	1.38E-04	9.66E-05	6.00E-06	1.36E-04	6.58E-05	4.78E-05
314	258858.3	4085232	7.26E-05	1.24E-03	8.40E-04	5.97E-04	7.26E-05	1.24E-03	8.40E-04	5.97E-04	1.10E-05	2.16E-04	1.38E-04	9.66E-05	6.00E-06	1.36E-04	6.57E-05	4.78E-05
315	258883.3	4085232	7.25E-05	1.24E-03	8.38E-04	5.95E-04	7.25E-05	1.24E-03	8.38E-04	5.95E-04	1.10E-05	2.16E-04	1.38E-04	9.64E-05	5.99E-06	1.36E-04	6.56E-05	4.76E-05
316	258908.3	4085232	7.21E-05	1.23E-03	8.33E-04	5.92E-04	7.21E-05	1.23E-03	8.33E-04	5.92E-04	1.10E-05	2.15E-04	1.37E-04	9.59E-05	5.96E-06	1.35E-04	6.53E-05	4.74E-05
317	258933.3	4085232	7.15E-05	1.22E-03	8.27E-04	5.87E-04	7.15E-05	1.22E-03	8.27E-04	5.87E-04	1.09E-05	2.13E-04	1.36E-04	9.51E-05	5.91E-06	1.34E-04	6.47E-05	4.70E-05
318	258958.3	4085232	7.07E-05	1.20E-03	8.17E-04	5.80E-04	7.07E-05	1.20E-03	8.17E-04	5.80E-04	1.07E-05	2.10E-04	1.34E-04	9.40E-05	5.83E-06	1.32E-04	6.39E-05	4.64E-05
319	258983.3	4085232	6.9E-05	1.18E-03	7.97E-04	5.67E-04	6.90E-05	1.18E-03	7.97E-04	5.67E-04	1.05E-05	2.05E-04	1.31E-04	9.17E-05	5.70E-06	1.29E-04	6.24E-05	4.53E-05
320	259008.3	4085232	6.73E-05	1.15E-03	7.78E-04	5.53E-04	6.73E-05	1.15E-03	7.78E-04	5.53E-04	1.02E-05	2.00E-04	1.28E-04	8.95E-05	5.56E-06	1.26E-04	6.09E-05	4.42E-05
321	259033.3	4085232	6.51E-05	1.11E-03	7.53E-04	5.35E-04	6.51E-05	1.11E-03	7

337	259433.3	4085232	2.55E-05	4.35E-04	2.95E-04	2.10E-04	2.55E-05	4.35E-04	2.95E-04	2.10E-04	3.88E-06	7.60E-05	4.84E-05	3.40E-05	2.11E-06	4.78E-05	2.31E-05	1.68E-05
338	259458.3	4085232	2.4E-05	4.09E-04	2.77E-04	1.97E-04	2.40E-05	4.09E-04	2.77E-04	1.97E-04	3.65E-06	7.15E-05	4.55E-05	3.19E-05	1.98E-06	4.49E-05	2.17E-05	1.58E-05
339	259483.3	4085232	2.26E-05	3.86E-04	2.62E-04	1.86E-04	2.26E-05	3.86E-04	2.62E-04	1.86E-04	3.44E-06	6.74E-05	4.30E-05	3.01E-05	1.87E-06	4.24E-05	2.05E-05	1.49E-05
340	259508.3	4085232	2.14E-05	3.66E-04	2.48E-04	1.76E-04	2.14E-05	3.66E-04	2.48E-04	1.76E-04	3.26E-06	6.38E-05	4.07E-05	2.85E-05	1.77E-06	4.01E-05	1.94E-05	1.41E-05
341	259533.3	4085232	2.04E-05	3.47E-04	2.35E-04	1.67E-04	2.04E-05	3.47E-04	2.35E-04	1.67E-04	3.10E-06	6.06E-05	3.86E-05	2.71E-05	1.68E-06	3.81E-05	1.84E-05	1.34E-05
342	259558.3	4085232	1.94E-05	3.31E-04	2.24E-04	1.59E-04	1.94E-05	3.31E-04	2.24E-04	1.59E-04	2.95E-06	5.77E-05	3.68E-05	2.58E-05	1.60E-06	3.63E-05	1.75E-05	1.27E-05
343	259583.3	4085232	1.85E-05	3.16E-04	2.14E-04	1.52E-04	1.85E-05	3.16E-04	2.14E-04	1.52E-04	2.81E-06	5.51E-05	3.51E-05	2.46E-05	1.53E-06	3.46E-05	1.68E-05	1.22E-05
344	259608.3	4085232	1.77E-05	3.02E-04	2.05E-04	1.45E-04	1.77E-05	3.02E-04	2.05E-04	1.45E-04	2.69E-06	5.27E-05	3.36E-05	2.36E-05	1.46E-06	3.31E-05	1.60E-05	1.16E-05
345	259633.3	4085232	1.7E-05	2.89E-04	1.96E-04	1.39E-04	1.70E-05	2.89E-04	1.96E-04	1.39E-04	2.58E-06	5.05E-05	3.22E-05	2.26E-05	1.40E-06	3.18E-05	1.54E-05	1.12E-05
346	259658.3	4085232	1.63E-05	2.78E-04	1.88E-04	1.34E-04	1.63E-05	2.78E-04	1.88E-04	1.34E-04	2.48E-06	4.86E-05	3.09E-05	2.17E-05	1.35E-06	3.05E-05	1.48E-05	1.07E-05
347	259683.3	4085232	1.56E-05	2.67E-04	1.81E-04	1.28E-04	1.56E-05	2.67E-04	1.81E-04	1.28E-04	2.38E-06	4.66E-05	2.97E-05	2.08E-05	1.29E-06	2.93E-05	1.42E-05	1.03E-05
348	259708.3	4085232	1.5E-05	2.56E-04	1.74E-04	1.24E-04	1.50E-05	2.56E-04	1.74E-04	1.24E-04	2.29E-06	4.48E-05	2.85E-05	2.00E-05	1.24E-06	2.81E-05	1.36E-05	9.89E-06
349	259733.3	4085232	1.45E-05	2.48E-04	1.68E-04	1.19E-04	1.45E-05	2.48E-04	1.68E-04	1.19E-04	2.21E-06	4.32E-05	2.76E-05	1.93E-05	1.20E-06	2.72E-05	1.31E-05	9.55E-06
350	259758.3	4085232	1.4E-05	2.39E-04	1.62E-04	1.15E-04	1.40E-05	2.39E-04	1.62E-04	1.15E-04	2.13E-06	4.18E-05	2.66E-05	1.87E-05	1.16E-06	2.63E-05	1.27E-05	9.23E-06
351	259783.3	4085232	1.36E-05	2.31E-04	1.57E-04	1.11E-04	1.36E-05	2.31E-04	1.57E-04	1.11E-04	2.06E-06	4.04E-05	2.57E-05	1.80E-05	1.12E-06	2.54E-05	1.23E-05	8.91E-06
352	259808.3	4085232	1.32E-05	2.24E-04	1.52E-04	1.08E-04	1.32E-05	2.24E-04	1.52E-04	1.08E-04	2.00E-06	3.92E-05	2.50E-05	1.75E-05	1.09E-06	2.46E-05	1.19E-05	8.65E-06
353	259833.3	4085232	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.95E-06	3.81E-05	2.43E-05	1.70E-05	1.06E-06	2.40E-05	1.16E-05	8.42E-06
354	259858.3	4085232	1.25E-05	2.13E-04	1.45E-04	1.03E-04	1.25E-05	2.13E-04	1.45E-04	1.03E-04	1.90E-06	3.73E-05	2.37E-05	1.66E-05	1.03E-06	2.34E-05	1.13E-05	8.22E-06
355	259883.3	4085232	1.22E-05	2.08E-04	1.41E-04	1.00E-04	1.22E-05	2.08E-04	1.41E-04	1.00E-04	1.86E-06	3.64E-05	2.32E-05	1.63E-05	1.01E-06	2.29E-05	1.11E-05	8.03E-06
356	259908.3	4085232	1.19E-05	2.03E-04	1.38E-04	9.80E-05	1.19E-05	2.03E-04	1.38E-04	9.80E-05	1.81E-06	3.55E-05	2.26E-05	1.59E-05	9.85E-07	2.23E-05	1.08E-05	7.84E-06
357	259933.3	4085232	1.16E-05	1.99E-04	1.35E-04	9.57E-05	1.16E-05	1.99E-04	1.35E-04	9.57E-05	1.77E-06	3.47E-05	2.21E-05	1.55E-05	9.62E-07	2.18E-05	1.05E-05	7.66E-06
358	259958.3	4085232	1.14E-05	1.94E-04	1.31E-04	9.33E-05	1.14E-05	1.94E-04	1.31E-04	9.33E-05	1.73E-06	3.38E-05	2.15E-05	1.51E-05	9.38E-07	2.13E-05	1.03E-05	7.47E-06
359	259983.3	4085232	1.11E-05	1.89E-04	1.28E-04	9.11E-05	1.11E-05	1.89E-04	1.28E-04	9.11E-05	1.69E-06	3.30E-05	2.11E-05	1.48E-05	9.16E-07	2.08E-05	1.00E-05	7.29E-06
360	258508.3	4085257	6.33E-05	1.08E-03	7.32E-04	5.20E-04	6.33E-05	1.08E-03	7.32E-04	5.20E-04	9.63E-06	1.89E-04	1.20E-04	8.42E-05	5.23E-06	1.19E-04	5.73E-05	4.16E-05
361	258533.3	4085257	6.38E-05	1.09E-03	7.37E-04	5.24E-04	6.38E-05	1.09E-03	7.37E-04	5.24E-04	9.70E-06	1.90E-04	1.21E-04	8.48E-05	5.27E-06	1.19E-04	5.77E-05	4.19E-05
362	258558.3	4085257	6.42E-05	1.10E-03	7.42E-04	5.28E-04	6.42E-05	1.10E-03	7.42E-04	5.28E-04	9.77E-06	1.91E-04	1.22E-04	8.54E-05	5.30E-06	1.20E-04	5.81E-05	4.22E-05
363	258583.3	4085257	6.47E-05	1.10E-03	7.47E-04	5.31E-04	6.47E-05	1.10E-03	7.47E-04	5.31E-04	9.83E-06	1.93E-04	1.23E-04	8.60E-05	5.34E-06	1.21E-04	5.85E-05	4.25E-05
364	258608.3	4085257	6.51E-05	1.11E-03	7.52E-04	5.35E-04	6.51E-05	1.11E-03	7.52E-04	5.35E-04	9.89E-06	1.94E-04	1.23E-04	8.65E-05	5.37E-06	1.22E-04	5.89E-05	4.28E-05
365	258633.3	4085257	6.55E-05	1.12E-03	7.57E-04	5.38E-04	6.55E-05	1.12E-03	7.57E-04	5.38E-04	9.95E-06	1.95E-04	1.24E-04	8.71E-05	5.41E-06	1.23E-04	5.92E-05	4.30E-05
366	258658.3	4085257	6.58E-05	1.12E-03	7.61E-04	5.41E-04	6.58E-05	1.12E-03	7.61E-04	5.41E-04	1.00E-05	1.96E-04	1.25E-04	8.75E-05	5.44E-06	1.23E-04	5.96E-05	4.33E-05
367	258683.3	4085257	6.61E-05	1.13E-03	7.64E-04	5.43E-04	6.61E-05	1.13E-03	7.64E-04	5.43E-04	1.01E-05	1.97E-04	1.25E-04	8.80E-05	5.46E-06	1.24E-04	5.99E-05	4.35E-05
368	258708.3	4085257	6.64E-05	1.13E-03	7.68E-04	5.46E-04	6.64E-05	1.13E-03	7.68E-04	5.46E-04	1.01E-05	1.98E-04	1.26E-04	8.83E-05	5.48E-06	1.24E-04	6.01E-05	4.37E-05
369	258733.3	4085257	6.66E-05	1.14E-03	7.70E-04	5.47E-04	6.66E-05	1.14E-03	7.70E-04	5.47E-04	1.01E-05	1.98E-04	1.26E-04	8.86E-05	5.50E-06	1.25E-04	6.03E-05	4.38E-05
370	258758.3	4085257	6.68E-05	1.14E-03	7.72E-04	5.49E-04	6.68E-05	1.14E-03	7.72E-04	5.49E-04	1.02E-05	1.99E-04	1.27E-04	8.88E-05	5.52E-06	1.25E-04	6.04E-05	4.39E-05
371	258783.3	4085257	6.69E-05	1.14E-03	7.73E-04	5.49E-04	6.69E-05	1.14E-03	7.73E-04	5.49E-04	1.02E-05	1.99E-04	1.27E-04	8.89E-05	5.52E-06	1.25E-04	6.05E-05	4.40E-05
372	258808.3	4085257	6.68E-05	1.14E-03	7.72E-04	5.49E-04	6.68E-05	1.14E-03	7.72E-04	5.49E-04	1.02E-05	1.99E-04	1.27E-04	8.89E-05	5.52E-06	1.25E-04	6.05E-05	4.39E-05
373	258833.3	4085257	6.67E-05	1.14E-03	7.71E-04	5.48E-04	6.67E-05	1.14E-03	7.71E-04	5.48E-04	1.01E-05	1.99E-04	1.27E-04	8.87E-05	5.51E-06	1.25E-04	6.03E-05	4.38E-05
374	258858.3	4085257	6.64E-05	1.13E-03	7.67E-04	5.45E-04	6.64E-05	1.13E-03	7.67E-04	5.45E-04	1.01E-05	1.98E-04	1.26E-04	8.83E-05	5.48E-06	1.24E-04	6.01E-05	4.36E-05
375	258883.3	4085257	6.59E-05	1.12E-03	7.62E-04	5.41E-04	6.59E-05	1.12E-03	7.62E-04	5.41E-04	1.00E-05	1.96E-04	1.25E-04	8.77E-05	5.44E-06	1.23E-04	5.97E-05	4.33E-05
376	258908.3	4085257	6.52E-05	1.11E-03	7.54E-04	5.36E-04	6.52E-05	1.11E-03	7.54E-04	5.36E-04	9.92E-06	1.94E-04	1.24E-04	8.68E-05	5.39E-06	1.22E-04	5.90E-05	4.29E-05
377	258933.3	4085257	6.43E-05	1.10E-03	7.44E-04	5.29E-04	6.43E-05	1.10E-03	7.44E-04	5.29E-04	9.78E-06	1.92E-04	1.22E-04	8.56E-05	5.31E-06	1.20E-04	5.82E-05	4.23E-05
378	258958.3	4085257	6.26E-05	1.07E-03	7.23E-04	5.14E-04	6.26E-05	1.07E-03	7.23E-04	5.14E-04	9.51E-06	1.86E-04	1.19E-04	8.32E-05	5.17E-06	1.17E-04	5.66E-05	4.11E-05
379	258983.3	4085257	6.09E-05	1.04E-03	7.04E-04	5.00E-04	6.09E-05	1.04E-03	7.04E-04	5.00E-04	9.26E-06	1.81E-04	1.16E-04	8.10E-05	5.03E-06	1.14E-04	5.51E-05	4.01E-05
380	259008.3	4085257	5.93E-05	1.01E-03	6.86E-04	4.87E-04	5.93E-05	1.01E-03	6.86E-04	4.87E-04	9.02E-06	1.77E-04	1.13E-04	7.89E-05	4.90E-06	1.11E-04	5.37E-05	3.90E-05
381	259033.3	4085257	5.75E-05	9.80E-04	6.64E-04	4.72E-04	5.75E-05	9.80E-04	6.64E-04	4.72E-04	8.74E-06	1.71E-04	1.09E-04	7.65E-05	4.75E-06	1.08E-04	5.20E-05	3.78E-05
382	259058.3	4085257	5.55E-05	9.46E-04	6.41E-04	4.56E-04	5.55E-05	9.46E-04	6.41E-04	4.56E-04	8.44E-06	1.65E-04	1.05E-04	7.38E-05	4.58E-06	1.04E-04	5.02E-05	3.65E-05
383	259083.3	4085257	5.33E-05	9.09E-04	6.16E-04	4.38E-04	5.33E-05	9.09E-04	6.16E-04	4.38E-04	8.11E-06	1.59E-04	1.01E-04	7.09E-05	4.40E-06	9.98E-05	4.83E-05	3.50E-05
384	259108.3	4085257	5.1E-05	8.70E-04	5.90E-04	4.19E-04	5.10E-05	8.70E-04	5.90E-04	4.19E-04	7.76E-06	1.52E-04	9.68E-05	6.79E-05	4.21E-06	9.55E-05	4.62E-05	3.35E-05
385	259133.3	4085257	4.86E-05	8.29E-04	5.62E-04	3.99E-04	4.86E-05	8.29E-04	5.62E-04	3.99E-04	7.39E-06	1.45E-04	9.23E-05	6.47E-05	4.02E-06	9.10E-05	4.40E-05	3.20E-05
386	259158.3	4085257	4.61E-05	7.86E-04	5.33E-04	3.79E-04	4.61E-05	7.86E-04	5.33E-04	3.79E-04	7.01E-06	1.37E-04	8.75E-05	6.13E-05	3.81E-06	8.63E-05	4.17E-05	3.03E-05
387	259183.3	4085257	4.35E-05	7.42E-04	5.03E-04	3.57E-04	4.35E-05	7.42E-04	5.03E-04	3.57E-04	6.62E-06	1.30E-04	8.26E-05	5.79E-05	3.59E-06	8.14E-05	3.94E-05	2.86E-05
388	259208.3	4085257	4.09E-05	6.98E-04	4.73E-04	3.36E-04	4.09E-05	6.98E-04	4.73E-04	3.36E-04	6.22E-06	1.22E-04	7.76E-05	5.44E-05	3.38E-06	7.66E-05	3.70E-05	2.69E-05
389	259233.3	4085257	3.84E-05	6.55E-04	4.44E-04	3.16E-04	3.84E-05	6.55E-04	4.44E-04	3.16E-04	5.84E-06	1.14E-04	7.29E-05	5.11E-05	3.17E-06	7.19E-05	3.48E-05	2.53E-05
390	259258.3	4085257	3.6E-05	6.14E-04	4.17E-04	2.96E-04	3.60E-05	6.14E-04	4.17E-04	2.96E-04	5.48E-06	1.07E-04	6.84E-05	4.79E-05	2.98E-06	6.75E-05	3.26E-05	2.37E-05
391	259283.3	4085257	3.4E-05	5.80E-04	3.93E-04	2.79E-04	3.40E-05	5.80E-04	3.93E-04	2.79E-04	5.17E-06	1.01E-04	6.45E-05	4.52E-05	2.81E-06	6.36E-05	3.08E-05	2.23E-05
392	259308.3	4085257	3.21E-05	5.48E-04	3.71E-04	2.64E-04	3.21E-05	5.48E-04	3.71E-04	2.64E-04	4.88E-06	9.57E-05	6.10E-05	4.27E-05	2.65E-06	6.01E-05	2.91E-05	2.11E-05
393	259333.3	4085257	3.02E-05	5.15E-04	3.49E-04	2.48E-04	3.02E-05	5.15E-04	3.49E-04	2.48E-04	4.59E-06	8.99E-05	5.73E-05	4.02E-05	2.49E-06	5.65E-05	2.73E-05	1.99E-05
394	259358.3	4085257	2.84E-05	4.85E-04	3.29E-04	2.34E-04	2.84E-05	4.85E-04	3.29E-04	2.34E-04	4.32E-06	8.47E-05	5.39E-05	3.78E-05	2.35E-06	5.32E-05	2.57E-05	1.87E-05
395	259383.3	4085257	2.68E-05	4.56E-04	3.09E-04	2.20E-04	2.68E-05	4.56E-04	3.09E-04	2.20E-04	4.07E-06	7.97E-05	5.08E-05	3.56E-05	2.21E-06	5.01E-05	2.42E-05	1.76E-05
396	259408.3	4085257	2.52E-05	4.30E-04	2.91E-04	2.07E-04	2.52E-05	4.30E-04	2.91E-04	2.07E-04	3.83E-06	7.50E-05	4.78E-05	3.35E-05	2.08E-06	4.72E-05	2.28E-05	1.66E-05
397	259433.3	4085257	2.37E-05	4.04E-04	2.74E-04	1.95E-04	2.37E-05	4.04E-04	2.74E-04	1.95E-04	3.61E-06	7.06E-05	4.50E-05	3.15E-05	1.96E-06	4.44E-05	2.15E-05	1.56E-05
398	259458.3	4085257	2.23E-05	3.81E-04	2.58E-04	1.84E-04	2.23E-05	3.81E-04	2.58E-04	1.84E-04	3.40E-06	6.65E-05	4.24E-05	2.97E-05	1.85E-06	4.18E-05	2.02E-05	1.47E-05
399	259483.3	4085257	2.11E-05	3.60E-04	2.44E-04	1.73E-04	2.11E-05	3.60E-04	2.44E-04	1.73E-04	3.21E-06	6.28E-05	4.00E-05	2.81E-05	1.74E-06	3.95E-05	1.91E-05	1.39E-05
400	259508.3	4085257	2E-05	3.41E-04	2.31E-04	1.64E-04	2.00E-05	3.41E-04	2.31E-04	1.64E-04	3.04E-06	5.95E-05	3.79E-05	2.66E-05	1.65E-06	3.74E-05	1.81E-05	1.31E-05
401	259533.3	4085257	1.9E-05	3.24E-04	2.20E-04	1.56E-04	1.90E-05	3.24E-04	2.20E-04	1.56E-04	2.89E-06	5.66E-05	3.60E-05	2.53E-05	1.57E-06	3.55E-05	1.72E-05	1.25E-05
402	259558.3	4085257	1.81E-05	3.08E-04	2.09E-04	1.49E-04	1.81E-05	3.08E-04	2.09E-04	1.49E-04	2.75E-06	5.39E-05	3.43E-05	2.41E-05	1.49E-06	3.39E-05	1.64E-05	1.19E-05
403	259583.3	4085257	1.73E-05	2.95E-04	2.00E-04	1.42E-04	1.73E-05	2.95E-04	2.00E-04	1.42E-04	2.63E-06	5.15E-05	3.28E-05	2.30E-05	1.43E-06	3.23E-05	1.56E-05	1.14E-05
404	259608.3	4085257	1.65E-05	2.82E-04	1.91E-04	1.36E-04	1.65E-05	2.82E-04	1.91E-04	1.36E-04	2.52E-06	4.93E-05	3.14E-05	2.20E-05	1.37E-06	3.10E-05	1.50E-05	1.09E-05
405	259633.3	4085257	1.59E-05	2.71E-04	1.83E-04	1.30E-04	1.59E-05	2.71E-04	1.83E-04	1.30E-04	2.41E-06	4.73E-05	3.01E-05	2.11E-05	1.31E-06	2.97E-05	1.44E-05	1.04E-05
406	259658.3	4085257	1.53E-05	2.60E-04	1.76E-04	1.25E-04	1.53E-05	2.60E-04	1.76E-04	1.25E-04	2.32E-06	4.54E-05	2.90E-05	2.03E-05	1.26E-06	2.86E-05	1.38E-05	1.00E-05
407	259683.3	4085257	1.46E-05	2.50E-04	1.69E-04	1.20E-04	1.46E-05	2.50E-04	1.69E-04	1.20E-04	2.23E-06	4.36E-05	2.78E-05	1.95E-05	1.21E-06	2.74E-05	1.32E-05	9.62E-06
408	259708.3	4085257	1.41E-05	2.41E-04	1.63E-04	1.16E-04	1.41E-05	2.41E-04	1.63E-04	1.16E-04	2.15E-06	4.20E-05	2.68E-05	1.88E-05	1.17E-06	2.64E-05	1.28E-05	9.28E-06
409	259733.3	4085257	1.36E-05	2.32E-04	1.58E-04	1.12E-04	1.36E-05	2.32E-04	1.58E-04	1.12E-04	2.07E-06	4.06E-05	2.59E-05	1.81E-05	1.13E-06	2.55E-05	1.23E-05	8.96E-06
410	259758.3	4085257	1.32E-05	2.25E-04	1.52E-04	1.08E-04	1.32E-05	2.25E-04	1.52E-04	1.08E-04	2.00E-06	3.92E-05	2.50E-05	1.75E-05	1.09E-06	2.46E-05	1.19E-05	8.66E-06
411	259783.3	4085257	1.28E-05	2.17E-04	1.47E-04	1.05E-04	1.28E-05	2.17E-04	1.47E-04	1.05E-04	1.94E-06	3.80E-05	2.42E-05	1.70E-05	1.05E-06	2.39E-05	1.15E-05	8.38E-06
412	259808.3	4085257	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.88E-06	3.69E-05	2.35E-05	1.65E-05	1.02E-06	2.32E-05	1.12E-05	8.15E-06
413	259833.3	4085257	1.21E-05	2.06E-04	1.40E-04	9.93E-05	1.21E-05	2.06E-04	1.40E-04	9.93E-05	1.84E-06	3.60E-05	2.29E-05	1.61E-05	9.98E-07	2.26E-05	1.09E-05	7.95E-06
414	259858.3	4085257	1.18E-05	2.01E-04	1.36E-04	9.70E-05	1.18E-05	2.01E-04	1.36E-04	9.70E-05	1.79E-06	3.51E-05	2.24E-05	1.57E-05	9.75E-07	2.21E-05	1.07E-05	7.76E-06
415	259883.3	4085257	1.15E-05	1.97E-04	1.33E-04	9.47E-05	1.15E-05	1.97E-04	1.33E-04	9.47E-05	1.75E-06	3.43E-05	2.19E-05	1.53E-05	9.52E-07	2.16E-05	1.04E-05	7.58E-06
416	259908.3	4085257	1.13E-05	1.92E-04	1.30E-04	9.25E-05	1.13E-05	1.92E-04	1.30E-04	9.25E-05	1.71E-06	3.35E-05	2.14E-05	1.50E-05	9.30E-07	2.11E-05	1.02E-05	7.41E-06
417	259933.3	4085257	1.1E-05	1.88E-04	1.27E-04	9.05E-05	1.10E-05	1.88E-04	1.27E-04	9.05E-05	1.67E-06	3.28E-05	2.09E-05	1.46E-05	9.10E-07	2.06E-05	9.97E-06	7.24E-06
418	259958.3	4085257	1.08E-05	1.83E-04	1.24E-04	8.83E-05	1.08E-05	1.83E-04	1.24E-04	8.83E-05	1.63E-06	3.20E-05	2.04E-05	1.43E-05	8.88E-07	2.01E-05	9.73E-06	7.07E-06
419	259983.3	4085257	1.05E-05	1.79E-04	1.22E-04	8.65E-05	1.05E-05	1.79E-04	1.22E-04	8.65E-05	1.60E-06	3.13E-05	2.00E-05	1.40E-05	8.69E-07	1.97E-05	9.53E-06	6.92E-06
420	258508.3	4085282	5.99E-05	1.02E-03	6.93E-04	4.92E-04	5.99E-05	1.02E-03	6.93E-04	4.92E-04	9.11E-06	1.78E-04	1.14E-04	7.97E-05	4.95E-06	1.12E-04	5.42E-05	3.94E-05
421	258533.3	4085282	6.03E-05	1.03E-03	6.97E-04	4.95E-04	6.03E-05	1.03E-03	6.97E-04	4.95E-04	9.17E-06	1.80E-04	1.14E-04	8.02E-05	4.98E-06	1.13E-04	5.46E-05	3.96E-05
422	258558.3	4085282	6.06E-05	1.03E-03	7.01E-04	4.98E-04	6.06E-05	1.03E-03	7.01E-04	4.98E-04	9.22E-06	1.81E-04	1.15E-04	8.06E-05	5.01E-06	1.13E-04	5.49E-05	3.99E-05
423	258583.3	4085282	6.09E-05	1.04E-03	7.04E-04	5.00E-04	6.09E-05	1.04E-03	7.04E-04	5.00E-04	9.26E-06	1.81E-04	1.16E-04	8.10E-05	5.03E-06	1.14E-04	5.51E-05	4.01E-05
424	258608.3	4085282	6.12E-05	1.04E-03	7.07E-04	5.03E-04	6.12E-05	1.04E-03	7.07E-04	5.03E-04	9.31E-06	1.82E-04	1.16E-04	8.14E-05	5.05E-06	1.15E-04	5.54E-05	4.02E-05
425	258633.3	4085282	6.15E-05	1.05E-03	7.10E-04	5.05E-04	6.15E-05	1.05E-03	7.10E-04	5.05E-04	9.34E-06	1.83E-04	1.17E-04	8.17E-05	5.07E-06	1.15E-04	5.56E-05	4.04E-05
426	258658.3	4085282	6.17E-05	1.05E-03	7.13E-04	5.06E-04	6.17E-05	1.05E-03	7.13E-04	5.06E-04	9.38E-06	1.84E-04	1.17E-04	8.20E-05	5.09E-06	1.15E-04	5.58E-05	4.05E-05
427	258683.3	4085282	6.18E-05	1.05E-03	7.14E-04	5.08E-04	6.18E-05	1.05E-03	7.14E-04	5.08E-04	9.40E-06	1.84E-04	1.17E-04	8.22E-05	5.10E-06	1.16E-04	5.59E-05	4.06E-05
428	258708.3	4085282	6.19E-05	1.06E-03	7.16E-04	5.09E-04	6.19E-05	1.06E-03	7.16E-04	5.09E-04	9.41E-06	1.84E-04	1.17E-04	8.23E-05	5.11E-06	1.16E-04	5.60E-05	4.07E-05
429	258733.3	4085282	6.2E-05	1.06E-03	7.16E-04	5.09E-04	6.20E-05	1.06E-03	7.16E-04	5.09E-04	9.42E-06	1.84E-04	1.18E-04	8.24E-05	5.12E-06	1.16E-04	5.61E-05	4.07E-05
430	258758.3	4085282	6.19E-05	1.06E-03	7.16E-04	5.09E-04	6.19E-05	1.06E-03	7.16E-04	5.09E-04	9.41E-06	1.84E-04	1.17E-04	8.23E-05	5.11E-06	1.16E-04	5.60E-05	4.07E-05
431	258783.3	4085282	6.18E-05	1.05E-03	7.14E-04	5.07E-04	6.18E-05	1.05E-03	7.14E-04	5.07E-04	9.39E-06	1.84E-04	1.17E-04	8.22E-05	5.10E-06	1.16E-04	5.59E-05	4.06E-05
432	258808.3	4085282	6.15E-05	1.05E-03	7.11E-04	5.05E-04	6.15E-05	1.05E-03	7.11E-04	5.05E-04	9.36E-06	1.83E-04	1.17E-04	8.18E-05	5.08E-06	1.15E-04	5.57E-05	4.05E-05
433	258833.3	4085282	6.12E-05	1.04E-03	7.07E-04	5.02E-04	6.12E-05	1.04E-03	7.07E-04	5.02E-04	9.30E-06	1.82E-04	1.16E-04	8.13E-05	5.05E-06	1.14E-04	5.53E-05	4.02E-05
434	258858.3	4085282	6.06E-05	1.03E-03	7.01E-04	4.98E-04	6.06E-05	1.03E-03	7.01

450	259258.3	4085282	3.25E-05	5.54E-04	3.76E-04	2.67E-04	3.25E-05	5.54E-04	3.76E-04	2.67E-04	4.94E-06	9.68E-05	6.17E-05	4.32E-05	2.68E-06	6.08E-05	2.94E-05	2.14E-05
451	259283.3	4085282	3.06E-05	5.22E-04	3.54E-04	2.52E-04	3.06E-05	5.22E-04	3.54E-04	2.52E-04	4.66E-06	9.13E-05	5.81E-05	4.08E-05	2.53E-06	5.74E-05	2.77E-05	2.01E-05
452	259308.3	4085282	2.91E-05	4.95E-04	3.36E-04	2.39E-04	2.91E-05	4.95E-04	3.36E-04	2.39E-04	4.42E-06	8.65E-05	5.51E-05	3.86E-05	2.40E-06	5.44E-05	2.63E-05	1.91E-05
453	259333.3	4085282	2.76E-05	4.71E-04	3.20E-04	2.27E-04	2.76E-05	4.71E-04	3.20E-04	2.27E-04	4.20E-06	8.23E-05	5.25E-05	3.68E-05	2.28E-06	5.17E-05	2.50E-05	1.82E-05
454	259358.3	4085282	2.62E-05	4.46E-04	3.03E-04	2.15E-04	2.62E-05	4.46E-04	3.03E-04	2.15E-04	3.98E-06	7.80E-05	4.97E-05	3.48E-05	2.16E-06	4.90E-05	2.37E-05	1.72E-05
455	259383.3	4085282	2.48E-05	4.23E-04	2.87E-04	2.04E-04	2.48E-05	4.23E-04	2.87E-04	2.04E-04	3.77E-06	7.39E-05	4.71E-05	3.30E-05	2.05E-06	4.64E-05	2.24E-05	1.63E-05
456	259408.3	4085282	2.35E-05	4.00E-04	2.71E-04	1.93E-04	2.35E-05	4.00E-04	2.71E-04	1.93E-04	3.57E-06	6.99E-05	4.45E-05	3.12E-05	1.94E-06	4.39E-05	2.12E-05	1.54E-05
457	259433.3	4085282	2.22E-05	3.78E-04	2.56E-04	1.82E-04	2.22E-05	3.78E-04	2.56E-04	1.82E-04	3.37E-06	6.60E-05	4.21E-05	2.95E-05	1.83E-06	4.15E-05	2.01E-05	1.46E-05
458	259458.3	4085282	2.09E-05	3.57E-04	2.42E-04	1.72E-04	2.09E-05	3.57E-04	2.42E-04	1.72E-04	3.19E-06	6.24E-05	3.97E-05	2.79E-05	1.73E-06	3.92E-05	1.90E-05	1.38E-05
459	259483.3	4085282	1.98E-05	3.38E-04	2.29E-04	1.63E-04	1.98E-05	3.38E-04	2.29E-04	1.63E-04	3.01E-06	5.90E-05	3.76E-05	2.64E-05	1.64E-06	3.71E-05	1.79E-05	1.30E-05
460	259508.3	4085282	1.88E-05	3.20E-04	2.17E-04	1.54E-04	1.88E-05	3.20E-04	2.17E-04	1.54E-04	2.86E-06	5.59E-05	3.56E-05	2.50E-05	1.55E-06	3.52E-05	1.70E-05	1.23E-05
461	259533.3	4085282	1.79E-05	3.04E-04	2.06E-04	1.47E-04	1.79E-05	3.04E-04	2.06E-04	1.47E-04	2.71E-06	5.32E-05	3.39E-05	2.37E-05	1.47E-06	3.34E-05	1.62E-05	1.17E-05
462	259558.3	4085282	1.7E-05	2.90E-04	1.97E-04	1.40E-04	1.70E-05	2.90E-04	1.97E-04	1.40E-04	2.59E-06	5.06E-05	3.23E-05	2.26E-05	1.40E-06	3.18E-05	1.54E-05	1.12E-05
463	259583.3	4085282	1.62E-05	2.77E-04	1.88E-04	1.33E-04	1.62E-05	2.77E-04	1.88E-04	1.33E-04	2.47E-06	4.84E-05	3.08E-05	2.16E-05	1.34E-06	3.04E-05	1.47E-05	1.07E-05
464	259608.3	4085282	1.55E-05	2.65E-04	1.80E-04	1.28E-04	1.55E-05	2.65E-04	1.80E-04	1.28E-04	2.36E-06	4.63E-05	2.95E-05	2.07E-05	1.28E-06	2.91E-05	1.41E-05	1.02E-05
465	259633.3	4085282	1.49E-05	2.54E-04	1.72E-04	1.23E-04	1.49E-05	2.54E-04	1.72E-04	1.23E-04	2.27E-06	4.44E-05	2.83E-05	1.98E-05	1.23E-06	2.79E-05	1.35E-05	9.81E-06
466	259658.3	4085282	1.43E-05	2.44E-04	1.66E-04	1.18E-04	1.43E-05	2.44E-04	1.66E-04	1.18E-04	2.18E-06	4.26E-05	2.72E-05	1.90E-05	1.18E-06	2.68E-05	1.30E-05	9.42E-06
467	259683.3	4085282	1.38E-05	2.35E-04	1.59E-04	1.13E-04	1.38E-05	2.35E-04	1.59E-04	1.13E-04	2.09E-06	4.10E-05	2.61E-05	1.83E-05	1.14E-06	2.58E-05	1.25E-05	9.05E-06
468	259708.3	4085282	1.33E-05	2.26E-04	1.53E-04	1.09E-04	1.33E-05	2.26E-04	1.53E-04	1.09E-04	2.02E-06	3.95E-05	2.52E-05	1.76E-05	1.10E-06	2.48E-05	1.20E-05	8.72E-06
469	259733.3	4085282	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.95E-06	3.81E-05	2.43E-05	1.70E-05	1.06E-06	2.40E-05	1.16E-05	8.42E-06
470	259758.3	4085282	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.88E-06	3.69E-05	2.35E-05	1.65E-05	1.02E-06	2.32E-05	1.12E-05	8.14E-06
471	259783.3	4085282	1.2E-05	2.05E-04	1.39E-04	9.86E-05	1.20E-05	2.05E-04	1.39E-04	9.86E-05	1.83E-06	3.58E-05	2.28E-05	1.60E-05	9.92E-07	2.25E-05	1.09E-05	7.89E-06
472	259808.3	4085282	1.17E-05	1.99E-04	1.35E-04	9.60E-05	1.17E-05	1.99E-04	1.35E-04	9.60E-05	1.78E-06	3.48E-05	2.22E-05	1.56E-05	9.66E-07	2.19E-05	1.06E-05	7.69E-06
473	259833.3	4085282	1.14E-05	1.95E-04	1.32E-04	9.39E-05	1.14E-05	1.95E-04	1.32E-04	9.39E-05	1.74E-06	3.40E-05	2.17E-05	1.52E-05	9.44E-07	2.14E-05	1.03E-05	7.51E-06
474	259858.3	4085282	1.12E-05	1.90E-04	1.29E-04	9.16E-05	1.12E-05	1.90E-04	1.29E-04	9.16E-05	1.70E-06	3.32E-05	2.12E-05	1.48E-05	9.21E-07	2.09E-05	1.01E-05	7.33E-06
475	259883.3	4085282	1.09E-05	1.86E-04	1.26E-04	8.95E-05	1.09E-05	1.86E-04	1.26E-04	8.95E-05	1.66E-06	3.24E-05	2.07E-05	1.45E-05	8.99E-07	2.04E-05	9.86E-06	7.16E-06
476	259908.3	4085282	1.06E-05	1.82E-04	1.23E-04	8.75E-05	1.06E-05	1.82E-04	1.23E-04	8.75E-05	1.62E-06	3.17E-05	2.02E-05	1.42E-05	8.79E-07	1.99E-05	9.64E-06	7.00E-06
477	259933.3	4085282	1.04E-05	1.78E-04	1.20E-04	8.56E-05	1.04E-05	1.78E-04	1.20E-04	8.56E-05	1.58E-06	3.10E-05	1.98E-05	1.39E-05	8.61E-07	1.95E-05	9.43E-06	6.85E-06
478	259958.3	4085282	1.02E-05	1.74E-04	1.18E-04	8.37E-05	1.02E-05	1.74E-04	1.18E-04	8.37E-05	1.55E-06	3.04E-05	1.93E-05	1.36E-05	8.42E-07	1.91E-05	9.23E-06	6.70E-06
479	259983.3	4085282	1E-05	1.71E-04	1.16E-04	8.21E-05	1.00E-05	1.71E-04	1.16E-04	8.21E-05	1.52E-06	2.98E-05	1.90E-05	1.33E-05	8.26E-07	1.87E-05	9.05E-06	6.57E-06
480	258508.3	4085307	5.67E-05	9.67E-04	6.56E-04	4.66E-04	5.67E-05	9.67E-04	6.56E-04	4.66E-04	8.62E-06	1.69E-04	1.08E-04	7.54E-05	4.68E-06	1.06E-04	5.13E-05	3.73E-05
481	258533.3	4085307	5.7E-05	9.71E-04	6.58E-04	4.68E-04	5.70E-05	9.71E-04	6.58E-04	4.68E-04	8.66E-06	1.70E-04	1.08E-04	7.58E-05	4.70E-06	1.07E-04	5.16E-05	3.74E-05
482	258558.3	4085307	5.72E-05	9.75E-04	6.61E-04	4.70E-04	5.72E-05	9.75E-04	6.61E-04	4.70E-04	8.70E-06	1.70E-04	1.09E-04	7.61E-05	4.72E-06	1.07E-04	5.18E-05	3.76E-05
483	258583.3	4085307	5.74E-05	9.78E-04	6.63E-04	4.71E-04	5.74E-05	9.78E-04	6.63E-04	4.71E-04	8.72E-06	1.71E-04	1.09E-04	7.63E-05	4.74E-06	1.07E-04	5.19E-05	3.77E-05
484	258608.3	4085307	5.75E-05	9.81E-04	6.65E-04	4.73E-04	5.75E-05	9.81E-04	6.65E-04	4.73E-04	8.75E-06	1.71E-04	1.09E-04	7.65E-05	4.75E-06	1.08E-04	5.21E-05	3.78E-05
485	258633.3	4085307	5.76E-05	9.83E-04	6.66E-04	4.74E-04	5.76E-05	9.83E-04	6.66E-04	4.74E-04	8.77E-06	1.72E-04	1.09E-04	7.67E-05	4.76E-06	1.08E-04	5.22E-05	3.79E-05
486	258658.3	4085307	5.77E-05	9.84E-04	6.67E-04	4.74E-04	5.77E-05	9.84E-04	6.67E-04	4.74E-04	8.78E-06	1.72E-04	1.10E-04	7.68E-05	4.77E-06	1.08E-04	5.22E-05	3.79E-05
487	258683.3	4085307	5.77E-05	9.84E-04	6.67E-04	4.74E-04	5.77E-05	9.84E-04	6.67E-04	4.74E-04	8.78E-06	1.72E-04	1.10E-04	7.68E-05	4.77E-06	1.08E-04	5.22E-05	3.79E-05
488	258708.3	4085307	5.77E-05	9.83E-04	6.67E-04	4.74E-04	5.77E-05	9.83E-04	6.67E-04	4.74E-04	8.77E-06	1.72E-04	1.09E-04	7.67E-05	4.76E-06	1.08E-04	5.22E-05	3.79E-05
489	258733.3	4085307	5.76E-05	9.81E-04	6.65E-04	4.73E-04	5.76E-05	9.81E-04	6.65E-04	4.73E-04	8.75E-06	1.71E-04	1.09E-04	7.65E-05	4.75E-06	1.08E-04	5.21E-05	3.78E-05
490	258758.3	4085307	5.74E-05	9.78E-04	6.63E-04	4.71E-04	5.74E-05	9.78E-04	6.63E-04	4.71E-04	8.72E-06	1.71E-04	1.09E-04	7.63E-05	4.74E-06	1.07E-04	5.19E-05	3.77E-05
491	258783.3	4085307	5.7E-05	9.73E-04	6.59E-04	4.69E-04	5.70E-05	9.73E-04	6.59E-04	4.69E-04	8.67E-06	1.70E-04	1.08E-04	7.59E-05	4.71E-06	1.07E-04	5.16E-05	3.75E-05
492	258808.3	4085307	5.66E-05	9.66E-04	6.55E-04	4.65E-04	5.66E-05	9.66E-04	6.55E-04	4.65E-04	8.61E-06	1.69E-04	1.07E-04	7.53E-05	4.68E-06	1.06E-04	5.13E-05	3.72E-05
493	258833.3	4085307	5.59E-05	9.54E-04	6.47E-04	4.60E-04	5.59E-05	9.54E-04	6.47E-04	4.60E-04	8.51E-06	1.67E-04	1.06E-04	7.44E-05	4.62E-06	1.05E-04	5.06E-05	3.68E-05
494	258858.3	4085307	5.48E-05	9.34E-04	6.33E-04	4.50E-04	5.48E-05	9.34E-04	6.33E-04	4.50E-04	8.33E-06	1.63E-04	1.04E-04	7.28E-05	4.52E-06	1.02E-04	4.96E-05	3.60E-05
495	258883.3	4085307	5.39E-05	9.19E-04	6.23E-04	4.43E-04	5.39E-05	9.19E-04	6.23E-04	4.43E-04	8.20E-06	1.61E-04	1.02E-04	7.17E-05	4.45E-06	1.01E-04	4.88E-05	3.54E-05
496	258908.3	4085307	5.29E-05	9.02E-04	6.12E-04	4.35E-04	5.29E-05	9.02E-04	6.12E-04	4.35E-04	8.05E-06	1.58E-04	1.00E-04	7.04E-05	4.37E-06	9.90E-05	4.79E-05	3.48E-05
497	258933.3	4085307	5.18E-05	8.83E-04	5.98E-04	4.25E-04	5.18E-05	8.83E-04	5.98E-04	4.25E-04	7.87E-06	1.54E-04	9.82E-05	6.88E-05	4.27E-06	9.69E-05	4.68E-05	3.40E-05
498	258958.3	4085307	5.05E-05	8.60E-04	5.83E-04	4.15E-04	5.05E-05	8.60E-04	5.83E-04	4.15E-04	7.67E-06	1.50E-04	9.58E-05	6.71E-05	4.17E-06	9.45E-05	4.57E-05	3.32E-05
499	258983.3	4085307	4.91E-05	8.36E-04	5.67E-04	4.03E-04	4.91E-05	8.36E-04	5.67E-04	4.03E-04	7.46E-06	1.46E-04	9.31E-05	6.52E-05	4.05E-06	9.18E-05	4.44E-05	3.22E-05
500	259008.3	4085307	4.75E-05	8.10E-04	5.49E-04	3.90E-04	4.75E-05	8.10E-04	5.49E-04	3.90E-04	7.23E-06	1.42E-04	9.02E-05	6.32E-05	3.93E-06	8.90E-05	4.30E-05	3.12E-05
501	259033.3	4085307	4.59E-05	7.83E-04	5.31E-04	3.77E-04	4.59E-05	7.83E-04	5.31E-04	3.77E-04	6.98E-06	1.37E-04	8.71E-05	6.11E-05	3.79E-06	8.59E-05	4.16E-05	3.02E-05
502	259058.3	4085307	4.43E-05	7.54E-04	5.11E-04	3.63E-04	4.43E-05	7.54E-04	5.11E-04	3.63E-04	6.73E-06	1.32E-04	8.40E-05	5.89E-05	3.65E-06	8.28E-05	4.00E-05	2.91E-05
503	259083.3	4085307	4.25E-05	7.25E-04	4.91E-04	3.49E-04	4.25E-05	7.25E-04	4.91E-04	3.49E-04	6.47E-06	1.27E-04	8.07E-05	5.66E-05	3.51E-06	7.96E-05	3.85E-05	2.80E-05
504	259108.3	4085307	4.07E-05	6.95E-04	4.71E-04	3.35E-04	4.07E-05	6.95E-04	4.71E-04	3.35E-04	6.20E-06	1.21E-04	7.73E-05	5.42E-05	3.36E-06	7.62E-05	3.69E-05	2.68E-05
505	259133.3	4085307	3.89E-05	6.63E-04	4.50E-04	3.20E-04	3.89E-05	6.63E-04	4.50E-04	3.20E-04	5.92E-06	1.16E-04	7.38E-05	5.17E-05	3.21E-06	7.28E-05	3.52E-05	2.56E-05
506	259158.3	4085307	3.7E-05	6.31E-04	4.28E-04	3.04E-04	3.70E-05	6.31E-04	4.28E-04	3.04E-04	5.63E-06	1.10E-04	7.02E-05	4.92E-05	3.06E-06	6.93E-05	3.35E-05	2.43E-05
507	259183.3	4085307	3.51E-05	5.98E-04	4.05E-04	2.88E-04	3.51E-05	5.98E-04	4.05E-04	2.88E-04	5.33E-06	1.04E-04	6.66E-05	4.67E-05	2.90E-06	6.57E-05	3.17E-05	2.31E-05
508	259208.3	4085307	3.32E-05	5.65E-04	3.83E-04	2.72E-04	3.32E-05	5.65E-04	3.83E-04	2.72E-04	5.04E-06	9.87E-05	6.29E-05	4.41E-05	2.74E-06	6.21E-05	3.00E-05	2.18E-05
509	259233.3	4085307	3.13E-05	5.34E-04	3.62E-04	2.57E-04	3.13E-05	5.34E-04	3.62E-04	2.57E-04	4.76E-06	9.32E-05	5.94E-05	4.16E-05	2.59E-06	5.86E-05	2.83E-05	2.06E-05
510	259258.3	4085307	2.96E-05	5.04E-04	3.42E-04	2.43E-04	2.96E-05	5.04E-04	3.42E-04	2.43E-04	4.50E-06	8.81E-05	5.61E-05	3.93E-05	2.44E-06	5.54E-05	2.68E-05	1.94E-05
511	259283.3	4085307	2.8E-05	4.77E-04	3.24E-04	2.30E-04	2.80E-05	4.77E-04	3.24E-04	2.30E-04	4.26E-06	8.34E-05	5.31E-05	3.72E-05	2.31E-06	5.24E-05	2.53E-05	1.84E-05
512	259308.3	4085307	2.66E-05	4.53E-04	3.07E-04	2.18E-04	2.66E-05	4.53E-04	3.07E-04	2.18E-04	4.04E-06	7.91E-05	5.04E-05	3.53E-05	2.19E-06	4.97E-05	2.40E-05	1.75E-05
513	259333.3	4085307	2.53E-05	4.32E-04	2.93E-04	2.08E-04	2.53E-05	4.32E-04	2.93E-04	2.08E-04	3.85E-06	7.54E-05	4.80E-05	3.37E-05	2.09E-06	4.74E-05	2.29E-05	1.66E-05
514	259358.3	4085307	2.43E-05	4.13E-04	2.80E-04	1.99E-04	2.43E-05	4.13E-04	2.80E-04	1.99E-04	3.69E-06	7.22E-05	4.60E-05	3.23E-05	2.00E-06	4.54E-05	2.19E-05	1.59E-05
515	259383.3	4085307	2.31E-05	3.94E-04	2.67E-04	1.90E-04	2.31E-05	3.94E-04	2.67E-04	1.90E-04	3.51E-06	6.87E-05	4.38E-05	3.07E-05	1.91E-06	4.32E-05	2.09E-05	1.52E-05
516	259408.3	4085307	2.19E-05	3.74E-04	2.54E-04	1.80E-04	2.19E-05	3.74E-04	2.54E-04	1.80E-04	3.34E-06	6.53E-05	4.16E-05	2.92E-05	1.81E-06	4.11E-05	1.99E-05	1.44E-05
517	259433.3	4085307	2.08E-05	3.55E-04	2.41E-04	1.71E-04	2.08E-05	3.55E-04	2.41E-04	1.71E-04	3.17E-06	6.20E-05	3.95E-05	2.77E-05	1.72E-06	3.90E-05	1.88E-05	1.37E-05
518	259458.3	4085307	1.97E-05	3.37E-04	2.28E-04	1.62E-04	1.97E-05	3.37E-04	2.28E-04	1.62E-04	3.00E-06	5.88E-05	3.75E-05	2.63E-05	1.63E-06	3.69E-05	1.79E-05	1.30E-05
519	259483.3	4085307	1.87E-05	3.19E-04	2.16E-04	1.54E-04	1.87E-05	3.19E-04	2.16E-04	1.54E-04	2.85E-06	5.57E-05	3.55E-05	2.49E-05	1.55E-06	3.50E-05	1.69E-05	1.23E-05
520	259508.3	4085307	1.78E-05	3.03E-04	2.05E-04	1.46E-04	1.78E-05	3.03E-04	2.05E-04	1.46E-04	2.70E-06	5.29E-05	3.37E-05	2.36E-05	1.47E-06	3.32E-05	1.61E-05	1.17E-05
521	259533.3	4085307	1.69E-05	2.88E-04	1.95E-04	1.39E-04	1.69E-05	2.88E-04	1.95E-04	1.39E-04	2.57E-06	5.03E-05	3.20E-05	2.25E-05	1.39E-06	3.16E-05	1.53E-05	1.11E-05
522	259558.3	4085307	1.61E-05	2.74E-04	1.86E-04	1.32E-04	1.61E-05	2.74E-04	1.86E-04	1.32E-04	2.45E-06	4.79E-05	3.05E-05	2.14E-05	1.33E-06	3.01E-05	1.46E-05	1.06E-05
523	259583.3	4085307	1.54E-05	2.62E-04	1.78E-04	1.26E-04	1.54E-05	2.62E-04	1.78E-04	1.26E-04	2.34E-06	4.57E-05	2.91E-05	2.04E-05	1.27E-06	2.87E-05	1.39E-05	1.01E-05
524	259608.3	4085307	1.47E-05	2.51E-04	1.70E-04	1.21E-04	1.47E-05	2.51E-04	1.70E-04	1.21E-04	2.24E-06	4.38E-05	2.79E-05	1.95E-05	1.21E-06	2.75E-05	1.33E-05	9.66E-06
525	259633.3	4085307	1.41E-05	2.40E-04	1.63E-04	1.16E-04	1.41E-05	2.40E-04	1.63E-04	1.16E-04	2.14E-06	4.20E-05	2.67E-05	1.87E-05	1.16E-06	2.64E-05	1.28E-05	9.26E-06
526	259658.3	4085307	1.35E-05	2.30E-04	1.56E-04	1.11E-04	1.35E-05	2.30E-04	1.56E-04	1.11E-04	2.05E-06	4.02E-05	2.56E-05	1.80E-05	1.11E-06	2.53E-05	1.22E-05	8.87E-06
527	259683.3	4085307	1.3E-05	2.22E-04	1.50E-04	1.07E-04	1.30E-05	2.22E-04	1.50E-04	1.07E-04	1.98E-06	3.87E-05	2.47E-05	1.73E-05	1.07E-06	2.43E-05	1.18E-05	8.55E-06
528	259708.3	4085307	1.25E-05	2.14E-04	1.45E-04	1.03E-04	1.25E-05	2.14E-04	1.45E-04	1.03E-04	1.90E-06	3.73E-05	2.38E-05	1.67E-05	1.03E-06	2.34E-05	1.13E-05	8.23E-06
529	259733.3	4085307	1.21E-05	2.06E-04	1.40E-04	9.93E-05	1.21E-05	2.06E-04	1.40E-04	9.93E-05	1.84E-06	3.60E-05	2.29E-05	1.61E-05	9.98E-07	2.26E-05	1.09E-05	7.95E-06
530	259758.3	4085307	1.17E-05	1.99E-04	1.35E-04	9.60E-05	1.17E-05	1.99E-04	1.35E-04	9.60E-05	1.78E-06	3.48E-05	2.22E-05	1.55E-05	9.65E-07	2.19E-05	1.06E-05	7.68E-06
531	259783.3	4085307	1.13E-05	1.93E-04	1.31E-04	9.30E-05	1.13E-05	1.93E-04	1.31E-04	9.30E-05	1.72E-06	3.37E-05	2.15E-05	1.51E-05	9.35E-07	2.12E-05	1.02E-05	7.44E-06
532	259808.3	4085307	1.11E-05	1.89E-04	1.28E-04	9.08E-05	1.11E-05	1.89E-04	1.28E-04	9.08E-05	1.68E-06	3.29E-05	2.10E-05	1.47E-05	9.13E-07	2.07E-05	1.00E-05	7.27E-06
533	259833.3	4085307	1.08E-05	1.84E-04	1.25E-04	8.88E-05	1.08E-05	1.84E-04	1.25E-04	8.88E-05	1.64E-06	3.22E-05	2.05E-05	1.44E-05	8.93E-07	2.02E-05	9.78E-06	7.11E-06
534	259858.3	4085307	1.06E-05	1.80E-04	1.22E-04	8.67E-05	1.06E-05	1.80E-04	1.22E-04	8.67E-05	1.60E-06	3.14E-05	2.00E-05	1.40E-05	8.71E-07	1.97E-05	9.55E-06	6.94E-06
535	259883.3	4085307	1.03E-05	1.76E-04	1.19E-04	8.47E-05	1.03E-05	1.76E-04	1.19E-04	8.47E-05	1.57E-06	3.07E-05	1.96E-05	1.37E-05	8.51E-07	1.93E-05	9.33E-06	6.77E-06
536	259908.3	4085307	1.01E-05	1.72E-04	1.17E-04	8.28E-05	1.01E-05	1.72E-04	1.17E-04	8.28E-05	1.53E-06	3.00E-05	1.91E-05	1.34E-05	8.33E-07	1.89E-05	9.12E-06	6.63E-06
537	259933.3	4085307	9.87E-06	1.68E-04	1.14E-04	8.11E-05	9.87E-06	1.68E-04	1.14E-04	8.11E-05	1.50E-06	2.94E-05	1.87E-05	1.31E-05	8.15E-07	1.85E-05	8.94E-06	6.49E-06
538	259958.3	4085307	9.68E-06	1.65E-04	1.12E-04	7.95E-05	9.68E-06	1.65E-04	1.12E-04	7.95E-05	1.47E-06	2.88E-05	1.84E-05	1.29E-05	8.00E-07	1.81E-05	8.76E-06	6.36E-06
539	259983.3	4085307	9.51E-06	1.62E-04	1.10E-04	7.81E-05	9.51E-06	1.62E-04	1.10E-04	7.81E-05	1.45E-06	2.83E-05	1.80E-05	1.26E-05	7.85E-07	1.78E-05	8.61E-06	6.25E-06
540	258508.3	4085332	5.37E-05	9.15E-04	6.20E-04	4.41E-04	5.37E-05	9.15E-04	6.20E-04	4.41E-04	8.16E-06	1.60E-04	1.02E-04	7.14E-05	4.43E-06	1.00E-04	4.86E-05	3.53E-05
541	258533.3	4085332	5.38E-05	9.17E-04	6.22E-04	4.42E-04	5.38E-05	9.17E-04	6.22E-04	4.42E-04	8.18E-06	1.60E-04	1.02E-04	7.16E-05	4.44E-06	1.01E-04	4.87E-05	3.54E-05
542	258558.3	4085332	5.39E-05	9.19E-04	6.23E-04	4.43E-04	5.39E-05	9.19E-04	6.23E-04	4.43E-04	8.20E-06	1.61E-04	1.02E-04	7.17E-05	4.45E-06	1.01E-04	4.88E-05	3.54E-05
543	258583.3	4085332	5.4E-05	9.21E-04	6.24E-04	4.44E-04	5.40E-05	9.21E-04	6.24E-04	4.44E-04	8.21E-06	1.61E-04	1.02E-04	7.18E-05	4.46E-06	1.01E-04	4.89E-05	3.55E-05
544	258608.3	4085332	5.4E-05	9.21E-04	6.25E-04	4.44E-04	5.40E-05	9.21E-04	6.25E-04	4.44E-04	8.22E-06	1.61E-04	1.03E-04	7.19E-05	4.46E-06	1.01E-04	4.89E-05	3.55E-05
545	258633.3	4085332	5.4E-05	9.21E-04	6.25E-04	4.44E-04	5.40E-05	9.21E-04	6.25E-04	4.44E-04	8.22E-06	1.61E-04	1.03E-04	7.19E-05	4.46E-06	1.01E-04	4.89E-05	3.55E-05
546	258658.3	4085332	5.4E-05	9.21E-04	6.24E-04	4.44E-04	5.40E-05	9.21E-04	6.24E-04	4.44E-04	8.21E-06	1.61E-04	1.02E-04	7.18E-05	4.46E-06	1.01E-04	4.89E-05	3.55E-05
547	258683.3	4085332	5.39E-05	9.19E-04	6.23E-04	4.43E-04	5.39E-05	9.19E-04	6.23

563	259083.3	4085332	3.85E-05	6.56E-04	4.45E-04	3.16E-04	3.85E-05	6.56E-04	4.45E-04	3.16E-04	5.85E-06	1.15E-04	7.30E-05	5.12E-05	3.18E-06	7.20E-05	3.48E-05	2.53E-05
564	259108.3	4085332	3.69E-05	6.29E-04	4.27E-04	3.03E-04	3.69E-05	6.29E-04	4.27E-04	3.03E-04	5.61E-06	1.10E-04	7.00E-05	4.91E-05	3.05E-06	6.91E-05	3.34E-05	2.43E-05
565	259133.3	4085332	3.53E-05	6.02E-04	4.08E-04	2.90E-04	3.53E-05	6.02E-04	4.08E-04	2.90E-04	5.37E-06	1.05E-04	6.70E-05	4.69E-05	2.91E-06	6.60E-05	3.19E-05	2.32E-05
566	259158.3	4085332	3.36E-05	5.73E-04	3.89E-04	2.76E-04	3.36E-05	5.73E-04	3.89E-04	2.76E-04	5.11E-06	1.00E-04	6.38E-05	4.47E-05	2.78E-06	6.29E-05	3.04E-05	2.21E-05
567	259183.3	4085332	3.19E-05	5.44E-04	3.69E-04	2.62E-04	3.19E-05	5.44E-04	3.69E-04	2.62E-04	4.85E-06	9.51E-05	6.06E-05	4.25E-05	2.64E-06	5.97E-05	2.89E-05	2.10E-05
568	259208.3	4085332	3.02E-05	5.16E-04	3.50E-04	2.48E-04	3.02E-05	5.16E-04	3.50E-04	2.48E-04	4.60E-06	9.01E-05	5.74E-05	4.02E-05	2.50E-06	5.66E-05	2.74E-05	1.99E-05
569	259233.3	4085332	2.86E-05	4.88E-04	3.31E-04	2.35E-04	2.86E-05	4.88E-04	3.31E-04	2.35E-04	4.35E-06	8.53E-05	5.43E-05	3.81E-05	2.36E-06	5.36E-05	2.59E-05	1.88E-05
570	259258.3	4085332	2.71E-05	4.62E-04	3.14E-04	2.23E-04	2.71E-05	4.62E-04	3.14E-04	2.23E-04	4.12E-06	8.08E-05	5.15E-05	3.61E-05	2.24E-06	5.08E-05	2.45E-05	1.78E-05
571	259283.3	4085332	2.58E-05	4.39E-04	2.98E-04	2.12E-04	2.58E-05	4.39E-04	2.98E-04	2.12E-04	3.92E-06	7.67E-05	4.89E-05	3.42E-05	2.13E-06	4.82E-05	2.33E-05	1.69E-05
572	259308.3	4085332	2.45E-05	4.18E-04	2.83E-04	2.01E-04	2.45E-05	4.18E-04	2.83E-04	2.01E-04	3.73E-06	7.30E-05	4.65E-05	3.26E-05	2.03E-06	4.59E-05	2.22E-05	1.61E-05
573	259333.3	4085332	2.34E-05	3.99E-04	2.71E-04	1.92E-04	2.34E-05	3.99E-04	2.71E-04	1.92E-04	3.56E-06	6.97E-05	4.44E-05	3.11E-05	1.93E-06	4.38E-05	2.12E-05	1.54E-05
574	259358.3	4085332	2.24E-05	3.82E-04	2.59E-04	1.84E-04	2.24E-05	3.82E-04	2.59E-04	1.84E-04	3.41E-06	6.67E-05	4.25E-05	2.98E-05	1.85E-06	4.19E-05	2.03E-05	1.47E-05
575	259383.3	4085332	2.16E-05	3.68E-04	2.49E-04	1.77E-04	2.16E-05	3.68E-04	2.49E-04	1.77E-04	3.28E-06	6.42E-05	4.09E-05	2.87E-05	1.78E-06	4.04E-05	1.95E-05	1.42E-05
576	259408.3	4085332	2.06E-05	3.51E-04	2.38E-04	1.69E-04	2.06E-05	3.51E-04	2.38E-04	1.69E-04	3.13E-06	6.13E-05	3.91E-05	2.74E-05	1.70E-06	3.86E-05	1.86E-05	1.35E-05
577	259433.3	4085332	1.96E-05	3.35E-04	2.27E-04	1.61E-04	1.96E-05	3.35E-04	2.27E-04	1.61E-04	2.98E-06	5.85E-05	3.72E-05	2.61E-05	1.62E-06	3.67E-05	1.78E-05	1.29E-05
578	259458.3	4085332	1.87E-05	3.18E-04	2.16E-04	1.53E-04	1.87E-05	3.18E-04	2.16E-04	1.53E-04	2.84E-06	5.56E-05	3.54E-05	2.48E-05	1.54E-06	3.49E-05	1.69E-05	1.23E-05
579	259483.3	4085332	1.77E-05	3.03E-04	2.05E-04	1.46E-04	1.77E-05	3.03E-04	2.05E-04	1.46E-04	2.70E-06	5.28E-05	3.37E-05	2.36E-05	1.47E-06	3.32E-05	1.61E-05	1.17E-05
580	259508.3	4085332	1.69E-05	2.88E-04	1.95E-04	1.39E-04	1.69E-05	2.88E-04	1.95E-04	1.39E-04	2.57E-06	5.02E-05	3.20E-05	2.24E-05	1.39E-06	3.16E-05	1.53E-05	1.11E-05
581	259533.3	4085332	1.61E-05	2.74E-04	1.86E-04	1.32E-04	1.61E-05	2.74E-04	1.86E-04	1.32E-04	2.44E-06	4.78E-05	3.05E-05	2.13E-05	1.33E-06	3.00E-05	1.45E-05	1.06E-05
582	259558.3	4085332	1.53E-05	2.61E-04	1.77E-04	1.26E-04	1.53E-05	2.61E-04	1.77E-04	1.26E-04	2.33E-06	4.56E-05	2.90E-05	2.03E-05	1.26E-06	2.86E-05	1.38E-05	1.01E-05
583	259583.3	4085332	1.46E-05	2.49E-04	1.69E-04	1.20E-04	1.46E-05	2.49E-04	1.69E-04	1.20E-04	2.22E-06	4.35E-05	2.77E-05	1.94E-05	1.21E-06	2.73E-05	1.32E-05	9.60E-06
584	259608.3	4085332	1.4E-05	2.38E-04	1.61E-04	1.15E-04	1.40E-05	2.38E-04	1.61E-04	1.15E-04	2.12E-06	4.16E-05	2.65E-05	1.86E-05	1.15E-06	2.61E-05	1.26E-05	9.19E-06
585	259633.3	4085332	1.34E-05	2.28E-04	1.55E-04	1.10E-04	1.34E-05	2.28E-04	1.55E-04	1.10E-04	2.04E-06	3.99E-05	2.54E-05	1.78E-05	1.11E-06	2.51E-05	1.21E-05	8.80E-06
586	259658.3	4085332	1.28E-05	2.19E-04	1.48E-04	1.05E-04	1.28E-05	2.19E-04	1.48E-04	1.05E-04	1.95E-06	3.82E-05	2.43E-05	1.70E-05	1.06E-06	2.40E-05	1.16E-05	8.43E-06
587	259683.3	4085332	1.23E-05	2.10E-04	1.43E-04	1.01E-04	1.23E-05	2.10E-04	1.43E-04	1.01E-04	1.88E-06	3.68E-05	2.34E-05	1.64E-05	1.02E-06	2.31E-05	1.12E-05	8.12E-06
588	259708.3	4085332	1.19E-05	2.03E-04	1.38E-04	9.78E-05	1.19E-05	2.03E-04	1.38E-04	9.78E-05	1.81E-06	3.55E-05	2.26E-05	1.58E-05	9.84E-07	2.23E-05	1.08E-05	7.83E-06
589	259733.3	4085332	1.15E-05	1.96E-04	1.33E-04	9.42E-05	1.15E-05	1.96E-04	1.33E-04	9.42E-05	1.74E-06	3.42E-05	2.18E-05	1.53E-05	9.47E-07	2.15E-05	1.04E-05	7.54E-06
590	259758.3	4085332	1.11E-05	1.89E-04	1.28E-04	9.08E-05	1.11E-05	1.89E-04	1.28E-04	9.08E-05	1.68E-06	3.29E-05	2.10E-05	1.47E-05	9.13E-07	2.07E-05	1.00E-05	7.27E-06
591	259783.3	4085332	1.07E-05	1.83E-04	1.24E-04	8.82E-05	1.07E-05	1.83E-04	1.24E-04	8.82E-05	1.63E-06	3.20E-05	2.04E-05	1.43E-05	8.87E-07	2.01E-05	9.72E-06	7.06E-06
592	259808.3	4085332	1.05E-05	1.79E-04	1.21E-04	8.61E-05	1.05E-05	1.79E-04	1.21E-04	8.61E-05	1.59E-06	3.12E-05	1.99E-05	1.39E-05	8.66E-07	1.96E-05	9.49E-06	6.89E-06
593	259833.3	4085332	1.02E-05	1.75E-04	1.18E-04	8.42E-05	1.02E-05	1.75E-04	1.18E-04	8.42E-05	1.56E-06	3.05E-05	1.94E-05	1.36E-05	8.46E-07	1.92E-05	9.27E-06	6.74E-06
594	259858.3	4085332	1E-05	1.71E-04	1.16E-04	8.22E-05	1.00E-05	1.71E-04	1.16E-04	8.22E-05	1.52E-06	2.98E-05	1.90E-05	1.33E-05	8.26E-07	1.87E-05	9.05E-06	6.58E-06
595	259883.3	4085332	9.77E-06	1.67E-04	1.13E-04	8.03E-05	9.77E-06	1.67E-04	1.13E-04	8.03E-05	1.49E-06	2.91E-05	1.85E-05	1.30E-05	8.07E-07	1.83E-05	8.84E-06	6.42E-06
596	259908.3	4085332	9.56E-06	1.63E-04	1.11E-04	7.85E-05	9.56E-06	1.63E-04	1.11E-04	7.85E-05	1.45E-06	2.85E-05	1.81E-05	1.27E-05	7.90E-07	1.79E-05	8.65E-06	6.29E-06
597	259933.3	4085332	9.37E-06	1.60E-04	1.08E-04	7.69E-05	9.37E-06	1.60E-04	1.08E-04	7.69E-05	1.42E-06	2.79E-05	1.78E-05	1.25E-05	7.74E-07	1.75E-05	8.48E-06	6.16E-06
598	259958.3	4085332	9.19E-06	1.57E-04	1.06E-04	7.55E-05	9.19E-06	1.57E-04	1.06E-04	7.55E-05	1.40E-06	2.74E-05	1.74E-05	1.22E-05	7.59E-07	1.72E-05	8.31E-06	6.04E-06
599	259983.3	4085332	9.04E-06	1.54E-04	1.05E-04	7.43E-05	9.04E-06	1.54E-04	1.05E-04	7.43E-05	1.38E-06	2.69E-05	1.72E-05	1.20E-05	7.47E-07	1.69E-05	8.18E-06	5.95E-06
600	258508.3	4085357	5.07E-05	8.65E-04	5.86E-04	4.17E-04	5.07E-05	8.65E-04	5.86E-04	4.17E-04	7.71E-06	1.51E-04	9.62E-05	6.75E-05	4.19E-06	9.49E-05	4.59E-05	3.33E-05
601	258533.3	4085357	5.08E-05	8.66E-04	5.87E-04	4.17E-04	5.08E-05	8.66E-04	5.87E-04	4.17E-04	7.72E-06	1.51E-04	9.64E-05	6.75E-05	4.19E-06	9.51E-05	4.60E-05	3.34E-05
602	258558.3	4085357	5.08E-05	8.66E-04	5.87E-04	4.17E-04	5.08E-05	8.66E-04	5.87E-04	4.17E-04	7.73E-06	1.51E-04	9.64E-05	6.76E-05	4.20E-06	9.51E-05	4.60E-05	3.34E-05
603	258583.3	4085357	5.08E-05	8.66E-04	5.87E-04	4.17E-04	5.08E-05	8.66E-04	5.87E-04	4.17E-04	7.73E-06	1.51E-04	9.64E-05	6.76E-05	4.20E-06	9.51E-05	4.60E-05	3.34E-05
604	258608.3	4085357	5.08E-05	8.65E-04	5.87E-04	4.17E-04	5.08E-05	8.65E-04	5.87E-04	4.17E-04	7.72E-06	1.51E-04	9.63E-05	6.75E-05	4.19E-06	9.50E-05	4.59E-05	3.34E-05
605	258633.3	4085357	5.07E-05	8.64E-04	5.85E-04	4.16E-04	5.07E-05	8.64E-04	5.85E-04	4.16E-04	7.70E-06	1.51E-04	9.61E-05	6.74E-05	4.18E-06	9.48E-05	4.58E-05	3.33E-05
606	258658.3	4085357	5.05E-05	8.61E-04	5.84E-04	4.15E-04	5.05E-05	8.61E-04	5.84E-04	4.15E-04	7.68E-06	1.50E-04	9.58E-05	6.72E-05	4.17E-06	9.45E-05	4.57E-05	3.32E-05
607	258683.3	4085357	5.03E-05	8.57E-04	5.81E-04	4.13E-04	5.03E-05	8.57E-04	5.81E-04	4.13E-04	7.64E-06	1.50E-04	9.54E-05	6.69E-05	4.15E-06	9.41E-05	4.55E-05	3.31E-05
608	258708.3	4085357	4.95E-05	8.45E-04	5.73E-04	4.07E-04	4.95E-05	8.45E-04	5.73E-04	4.07E-04	7.53E-06	1.48E-04	9.40E-05	6.59E-05	4.09E-06	9.27E-05	4.48E-05	3.26E-05
609	258733.3	4085357	4.92E-05	8.38E-04	5.68E-04	4.04E-04	4.92E-05	8.38E-04	5.68E-04	4.04E-04	7.48E-06	1.46E-04	9.33E-05	6.54E-05	4.06E-06	9.20E-05	4.45E-05	3.23E-05
610	258758.3	4085357	4.87E-05	8.31E-04	5.63E-04	4.00E-04	4.87E-05	8.31E-04	5.63E-04	4.00E-04	7.41E-06	1.45E-04	9.25E-05	6.48E-05	4.02E-06	9.12E-05	4.41E-05	3.20E-05
611	258783.3	4085357	4.82E-05	8.22E-04	5.57E-04	3.96E-04	4.82E-05	8.22E-04	5.57E-04	3.96E-04	7.33E-06	1.44E-04	9.14E-05	6.41E-05	3.98E-06	9.02E-05	4.36E-05	3.17E-05
612	258808.3	4085357	4.76E-05	8.11E-04	5.50E-04	3.91E-04	4.76E-05	8.11E-04	5.50E-04	3.91E-04	7.23E-06	1.42E-04	9.02E-05	6.33E-05	3.93E-06	8.90E-05	4.30E-05	3.13E-05
613	258833.3	4085357	4.68E-05	7.98E-04	5.41E-04	3.85E-04	4.68E-05	7.98E-04	5.41E-04	3.85E-04	7.12E-06	1.39E-04	8.89E-05	6.23E-05	3.87E-06	8.76E-05	4.24E-05	3.08E-05
614	258858.3	4085357	4.6E-05	7.84E-04	5.32E-04	3.78E-04	4.60E-05	7.84E-04	5.32E-04	3.78E-04	6.99E-06	1.37E-04	8.73E-05	6.12E-05	3.80E-06	8.61E-05	4.16E-05	3.02E-05
615	258883.3	4085357	4.51E-05	7.68E-04	5.21E-04	3.70E-04	4.51E-05	7.68E-04	5.21E-04	3.70E-04	6.85E-06	1.34E-04	8.55E-05	5.99E-05	3.72E-06	8.43E-05	4.08E-05	2.96E-05
616	258908.3	4085357	4.4E-05	7.51E-04	5.09E-04	3.62E-04	4.40E-05	7.51E-04	5.09E-04	3.62E-04	6.70E-06	1.31E-04	8.35E-05	5.86E-05	3.64E-06	8.24E-05	3.98E-05	2.89E-05
617	258933.3	4085357	4.29E-05	7.32E-04	4.96E-04	3.53E-04	4.29E-05	7.32E-04	4.96E-04	3.53E-04	6.53E-06	1.28E-04	8.14E-05	5.71E-05	3.54E-06	8.03E-05	3.88E-05	2.82E-05
618	258958.3	4085357	4.17E-05	7.11E-04	4.82E-04	3.43E-04	4.17E-05	7.11E-04	4.82E-04	3.43E-04	6.35E-06	1.24E-04	7.92E-05	5.55E-05	3.45E-06	7.81E-05	3.78E-05	2.74E-05
619	258983.3	4085357	4.05E-05	6.90E-04	4.68E-04	3.33E-04	4.05E-05	6.90E-04	4.68E-04	3.33E-04	6.16E-06	1.21E-04	7.68E-05	5.38E-05	3.34E-06	7.58E-05	3.66E-05	2.66E-05
620	259008.3	4085357	3.92E-05	6.68E-04	4.53E-04	3.22E-04	3.92E-05	6.68E-04	4.53E-04	3.22E-04	5.96E-06	1.17E-04	7.43E-05	5.21E-05	3.24E-06	7.33E-05	3.55E-05	2.58E-05
621	259033.3	4085357	3.78E-05	6.45E-04	4.37E-04	3.11E-04	3.78E-05	6.45E-04	4.37E-04	3.11E-04	5.76E-06	1.13E-04	7.18E-05	5.03E-05	3.13E-06	7.08E-05	3.43E-05	2.49E-05
622	259058.3	4085357	3.65E-05	6.22E-04	4.22E-04	3.00E-04	3.65E-05	6.22E-04	4.22E-04	3.00E-04	5.55E-06	1.09E-04	6.92E-05	4.85E-05	3.01E-06	6.83E-05	3.30E-05	2.40E-05
623	259083.3	4085357	3.51E-05	5.98E-04	4.06E-04	2.88E-04	3.51E-05	5.98E-04	4.06E-04	2.88E-04	5.34E-06	1.05E-04	6.66E-05	4.67E-05	2.90E-06	6.57E-05	3.18E-05	2.31E-05
624	259108.3	4085357	3.37E-05	5.74E-04	3.89E-04	2.77E-04	3.37E-05	5.74E-04	3.89E-04	2.77E-04	5.12E-06	1.00E-04	6.39E-05	4.48E-05	2.78E-06	6.30E-05	3.05E-05	2.21E-05
625	259133.3	4085357	3.22E-05	5.50E-04	3.73E-04	2.65E-04	3.22E-05	5.50E-04	3.73E-04	2.65E-04	4.90E-06	9.60E-05	6.12E-05	4.29E-05	2.66E-06	6.03E-05	2.92E-05	2.12E-05
626	259158.3	4085357	3.08E-05	5.24E-04	3.56E-04	2.53E-04	3.08E-05	5.24E-04	3.56E-04	2.53E-04	4.68E-06	9.16E-05	5.84E-05	4.09E-05	2.54E-06	5.76E-05	2.78E-05	2.02E-05
627	259183.3	4085357	2.93E-05	4.99E-04	3.38E-04	2.40E-04	2.93E-05	4.99E-04	3.38E-04	2.40E-04	4.45E-06	8.71E-05	5.55E-05	3.89E-05	2.42E-06	5.48E-05	2.65E-05	1.92E-05
628	259208.3	4085357	2.78E-05	4.74E-04	3.21E-04	2.28E-04	2.78E-05	4.74E-04	3.21E-04	2.28E-04	4.22E-06	8.27E-05	5.27E-05	3.69E-05	2.29E-06	5.20E-05	2.51E-05	1.83E-05
629	259233.3	4085357	2.64E-05	4.49E-04	3.05E-04	2.16E-04	2.64E-05	4.49E-04	3.05E-04	2.16E-04	4.01E-06	7.85E-05	5.00E-05	3.50E-05	2.18E-06	4.93E-05	2.38E-05	1.73E-05
630	259258.3	4085357	2.5E-05	4.27E-04	2.89E-04	2.06E-04	2.50E-05	4.27E-04	2.89E-04	2.06E-04	3.81E-06	7.45E-05	4.75E-05	3.33E-05	2.07E-06	4.68E-05	2.26E-05	1.65E-05
631	259283.3	4085357	2.38E-05	4.06E-04	2.75E-04	1.96E-04	2.38E-05	4.06E-04	2.75E-04	1.96E-04	3.62E-06	7.09E-05	4.52E-05	3.17E-05	1.97E-06	4.46E-05	2.16E-05	1.57E-05
632	259308.3	4085357	2.28E-05	3.88E-04	2.63E-04	1.87E-04	2.28E-05	3.88E-04	2.63E-04	1.87E-04	3.46E-06	6.78E-05	4.32E-05	3.03E-05	1.88E-06	4.26E-05	2.06E-05	1.50E-05
633	259333.3	4085357	2.18E-05	3.72E-04	2.52E-04	1.79E-04	2.18E-05	3.72E-04	2.52E-04	1.79E-04	3.32E-06	6.49E-05	4.14E-05	2.90E-05	1.80E-06	4.08E-05	1.97E-05	1.43E-05
634	259358.3	4085357	2.09E-05	3.57E-04	2.42E-04	1.72E-04	2.09E-05	3.57E-04	2.42E-04	1.72E-04	3.18E-06	6.23E-05	3.97E-05	2.78E-05	1.73E-06	3.92E-05	1.89E-05	1.38E-05
635	259383.3	4085357	2.01E-05	3.43E-04	2.33E-04	1.65E-04	2.01E-05	3.43E-04	2.33E-04	1.65E-04	3.06E-06	5.99E-05	3.82E-05	2.68E-05	1.66E-06	3.77E-05	1.82E-05	1.32E-05
636	259408.3	4085357	1.94E-05	3.31E-04	2.24E-04	1.59E-04	1.94E-05	3.31E-04	2.24E-04	1.59E-04	2.95E-06	5.78E-05	3.68E-05	2.58E-05	1.60E-06	3.63E-05	1.76E-05	1.27E-05
637	259433.3	4085357	1.86E-05	3.16E-04	2.14E-04	1.52E-04	1.86E-05	3.16E-04	2.14E-04	1.52E-04	2.82E-06	5.52E-05	3.52E-05	2.47E-05	1.53E-06	3.47E-05	1.68E-05	1.22E-05
638	259458.3	4085357	1.77E-05	3.02E-04	2.05E-04	1.45E-04	1.77E-05	3.02E-04	2.05E-04	1.45E-04	2.69E-06	5.27E-05	3.36E-05	2.36E-05	1.46E-06	3.31E-05	1.60E-05	1.16E-05
639	259483.3	4085357	1.69E-05	2.88E-04	1.95E-04	1.39E-04	1.69E-05	2.88E-04	1.95E-04	1.39E-04	2.57E-06	5.03E-05	3.20E-05	2.25E-05	1.39E-06	3.16E-05	1.53E-05	1.11E-05
640	259508.3	4085357	1.61E-05	2.74E-04	1.86E-04	1.32E-04	1.61E-05	2.74E-04	1.86E-04	1.32E-04	2.45E-06	4.79E-05	3.05E-05	2.14E-05	1.33E-06	3.01E-05	1.46E-05	1.06E-05
641	259533.3	4085357	1.53E-05	2.61E-04	1.77E-04	1.26E-04	1.53E-05	2.61E-04	1.77E-04	1.26E-04	2.33E-06	4.56E-05	2.91E-05	2.04E-05	1.27E-06	2.87E-05	1.39E-05	1.01E-05
642	259558.3	4085357	1.46E-05	2.49E-04	1.69E-04	1.20E-04	1.46E-05	2.49E-04	1.69E-04	1.20E-04	2.22E-06	4.35E-05	2.77E-05	1.94E-05	1.21E-06	2.73E-05	1.32E-05	9.61E-06
643	259583.3	4085357	1.4E-05	2.38E-04	1.61E-04	1.15E-04	1.40E-05	2.38E-04	1.61E-04	1.15E-04	2.12E-06	4.15E-05	2.65E-05	1.86E-05	1.15E-06	2.61E-05	1.26E-05	9.17E-06
644	259608.3	4085357	1.33E-05	2.28E-04	1.54E-04	1.10E-04	1.33E-05	2.28E-04	1.54E-04	1.10E-04	2.03E-06	3.97E-05	2.53E-05	1.77E-05	1.10E-06	2.50E-05	1.21E-05	8.77E-06
645	259633.3	4085357	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.94E-06	3.81E-05	2.43E-05	1.70E-05	1.06E-06	2.39E-05	1.16E-05	8.40E-06
646	259658.3	4085357	1.22E-05	2.09E-04	1.41E-04	1.00E-04	1.22E-05	2.09E-04	1.41E-04	1.00E-04	1.86E-06	3.64E-05	2.32E-05	1.63E-05	1.01E-06	2.29E-05	1.11E-05	8.04E-06
647	259683.3	4085357	1.18E-05	2.01E-04	1.36E-04	9.67E-05	1.18E-05	2.01E-04	1.36E-04	9.67E-05	1.79E-06	3.51E-05	2.23E-05	1.57E-05	9.72E-07	2.20E-05	1.07E-05	7.74E-06
648	259708.3	4085357	1.14E-05	1.94E-04	1.31E-04	9.32E-05	1.14E-05	1.94E-04	1.31E-04	9.32E-05	1.73E-06	3.38E-05	2.15E-05	1.51E-05	9.37E-07	2.12E-05	1.03E-05	7.46E-06
649	259733.3	4085357	1.09E-05	1.86E-04	1.26E-04	8.97E-05	1.09E-05	1.86E-04	1.26E-04	8.97E-05	1.66E-06	3.25E-05	2.07E-05	1.45E-05	9.02E-07	2.04E-05	9.89E-06	7.18E-06
650	259758.3	4085357	1.05E-05	1.80E-04	1.22E-04	8.65E-05	1.05E-05	1.80E-04	1.22E-04	8.65E-05	1.60E-06	3.14E-05	2.00E-05	1.40E-05	8.69E-07	1.97E-05	9.53E-06	6.92E-06
651	259783.3	4085357	1.02E-05	1.74E-04	1.18E-04	8.40E-05	1.02E-05	1.74E-04	1.18E-04	8.40E-05	1.56E-06	3.05E-05	1.94E-05	1.36E-05	8.45E-07	1.91E-05	9.26E-06	6.72E-06
652	259808.3	4085357	1E-05	1.71E-04	1.16E-04	8.22E-05	1.00E-05	1.71E-04	1.16E-04	8.22E-05	1.52E-06	2.98E-05	1.90E-05	1.33E-05	8.26E-07	1.87E-05	9.06E-06	6.58E-06
653	259833.3	4085357	9.75E-06	1.66E-04	1.13E-04	8.01E-05	9.75E-06	1.66E-04	1.13E-04	8.01E-05	1.48E-06	2.90E-05	1.85E-05	1.30E-05	8.05E-07	1.82E-05	8.82E-06	6.41E-06
654	259858.3	4085357	9.51E-06	1.62E-04	1.10E-04	7.81E-05	9.51E-06	1.62E-04	1.10E-04	7.81E-05	1.45E-06	2.83E-05	1.80E-05	1.26E-05	7.85E-07	1.78E-05	8.60E-06	6.25E-06
655	259883.3	4085357	9.3E-06	1.59E-04	1.07E-04	7.64E-05	9.30E-06	1.59E-04	1.07E-04	7.64E-05	1.41E-06	2.77E-05	1.76E-05	1.24E-05	7.68E-07	1.74E-05	8.42E-06	6.11E-06
656	259908.3	4085357	9.11E-06	1.55E-04	1.05E-04	7.48E-05	9.11E-06	1.55E-04	1.05E-04	7.48E-05	1.39E-06	2.71E-05	1.73E-05	1.21E-05	7.52E-07	1.70E-05	8.24E-06	5.99E-06
657	259933.3	4085357	8.92E-06	1.52E-04	1.03E-04	7.33E-05	8.92E-06	1.52E-04	1.03E-04	7.33E-05	1.36E-06	2.66E-05	1.69E-05	1.19E-05	7.37E-07	1.67E-05	8.08E-06	5.87E-06
658	259958.3	4085357	8.75E-06	1.49E-04	1.01E-04	7.19E-05	8.75E-06	1.49E-04	1.01E-04	7.19E-05	1.33E-06	2.61E-05	1.66E-05	1.16E-05	7.23E-07	1.64E-05	7.92E-06	5.75E-06
659	259983.3	4085357	8.6E-06	1.47E-04	9.94E-05	7.06E-05	8.60E-06	1.47E-04	9.94E-05	7.06E-05	1.31E-06	2.56E-05	1.63E-05	1.14E-05	7.10E-07	1.61E-05	7.78E-06	5.65E-06
660	258508.3	4085382	4.79E-05	8.17E-04	5.54E-04	3.94E-04	4.79E-05	8.17E-04	5.54E-

676	258908.3	4085382	4.04E-05	6.89E-04	4.67E-04	3.32E-04	4.04E-05	6.89E-04	4.67E-04	3.32E-04	6.15E-06	1.20E-04	7.67E-05	5.38E-05	3.34E-06	7.56E-05	3.66E-05	2.66E-05
677	258933.3	4085382	3.94E-05	6.71E-04	4.55E-04	3.23E-04	3.94E-05	6.71E-04	4.55E-04	3.23E-04	5.99E-06	1.17E-04	7.47E-05	5.24E-05	3.25E-06	7.37E-05	3.56E-05	2.59E-05
678	258958.3	4085382	3.83E-05	6.52E-04	4.42E-04	3.14E-04	3.83E-05	6.52E-04	4.42E-04	3.14E-04	5.82E-06	1.14E-04	7.26E-05	5.09E-05	3.16E-06	7.16E-05	3.46E-05	2.51E-05
679	258983.3	4085382	3.71E-05	6.32E-04	4.29E-04	3.05E-04	3.71E-05	6.32E-04	4.29E-04	3.05E-04	5.64E-06	1.10E-04	7.04E-05	4.93E-05	3.06E-06	6.94E-05	3.36E-05	2.44E-05
680	259008.3	4085382	3.59E-05	6.12E-04	4.15E-04	2.95E-04	3.59E-05	6.12E-04	4.15E-04	2.95E-04	5.46E-06	1.07E-04	6.81E-05	4.78E-05	2.97E-06	6.72E-05	3.25E-05	2.36E-05
681	259033.3	4085382	3.47E-05	5.91E-04	4.01E-04	2.85E-04	3.47E-05	5.91E-04	4.01E-04	2.85E-04	5.28E-06	1.03E-04	6.58E-05	4.61E-05	2.87E-06	6.49E-05	3.14E-05	2.28E-05
682	259058.3	4085382	3.35E-05	5.70E-04	3.87E-04	2.75E-04	3.35E-05	5.70E-04	3.87E-04	2.75E-04	5.09E-06	9.96E-05	6.35E-05	4.45E-05	2.76E-06	6.26E-05	3.03E-05	2.20E-05
683	259083.3	4085382	3.22E-05	5.49E-04	3.72E-04	2.65E-04	3.22E-05	5.49E-04	3.72E-04	2.65E-04	4.90E-06	9.59E-05	6.11E-05	4.28E-05	2.66E-06	6.03E-05	2.91E-05	2.12E-05
684	259108.3	4085382	3.09E-05	5.27E-04	3.58E-04	2.54E-04	3.09E-05	5.27E-04	3.58E-04	2.54E-04	4.70E-06	9.21E-05	5.87E-05	4.11E-05	2.55E-06	5.79E-05	2.80E-05	2.03E-05
685	259133.3	4085382	2.96E-05	5.05E-04	3.43E-04	2.43E-04	2.96E-05	5.05E-04	3.43E-04	2.43E-04	4.51E-06	8.83E-05	5.62E-05	3.94E-05	2.45E-06	5.55E-05	2.68E-05	1.95E-05
686	259158.3	4085382	2.83E-05	4.83E-04	3.27E-04	2.33E-04	2.83E-05	4.83E-04	3.27E-04	2.33E-04	4.31E-06	8.43E-05	5.37E-05	3.77E-05	2.34E-06	5.30E-05	2.56E-05	1.86E-05
687	259183.3	4085382	2.7E-05	4.60E-04	3.12E-04	2.22E-04	2.70E-05	4.60E-04	3.12E-04	2.22E-04	4.10E-06	8.03E-05	5.12E-05	3.59E-05	2.23E-06	5.05E-05	2.44E-05	1.77E-05
688	259208.3	4085382	2.57E-05	4.37E-04	2.97E-04	2.11E-04	2.57E-05	4.37E-04	2.97E-04	2.11E-04	3.90E-06	7.64E-05	4.87E-05	3.41E-05	2.12E-06	4.80E-05	2.32E-05	1.69E-05
689	259233.3	4085382	2.44E-05	4.16E-04	2.82E-04	2.00E-04	2.44E-05	4.16E-04	2.82E-04	2.00E-04	3.71E-06	7.26E-05	4.63E-05	3.24E-05	2.01E-06	4.56E-05	2.21E-05	1.60E-05
690	259258.3	4085382	2.32E-05	3.96E-04	2.68E-04	1.91E-04	2.32E-05	3.96E-04	2.68E-04	1.91E-04	3.53E-06	6.91E-05	4.40E-05	3.09E-05	1.92E-06	4.34E-05	2.10E-05	1.53E-05
691	259283.3	4085382	2.22E-05	3.78E-04	2.56E-04	1.82E-04	2.22E-05	3.78E-04	2.56E-04	1.82E-04	3.37E-06	6.60E-05	4.20E-05	2.95E-05	1.83E-06	4.15E-05	2.00E-05	1.46E-05
692	259308.3	4085382	2.12E-05	3.62E-04	2.45E-04	1.74E-04	2.12E-05	3.62E-04	2.45E-04	1.74E-04	3.23E-06	6.32E-05	4.03E-05	2.82E-05	1.75E-06	3.97E-05	1.92E-05	1.39E-05
693	259333.3	4085382	2.04E-05	3.48E-04	2.36E-04	1.67E-04	2.04E-05	3.48E-04	2.36E-04	1.67E-04	3.10E-06	6.07E-05	3.87E-05	2.71E-05	1.68E-06	3.82E-05	1.84E-05	1.34E-05
694	259358.3	4085382	1.96E-05	3.35E-04	2.27E-04	1.61E-04	1.96E-05	3.35E-04	2.27E-04	1.61E-04	2.99E-06	5.85E-05	3.73E-05	2.61E-05	1.62E-06	3.67E-05	1.78E-05	1.29E-05
695	259383.3	4085382	1.89E-05	3.22E-04	2.19E-04	1.55E-04	1.89E-05	3.22E-04	2.19E-04	1.55E-04	2.88E-06	5.63E-05	3.59E-05	2.52E-05	1.56E-06	3.54E-05	1.71E-05	1.24E-05
696	259408.3	4085382	1.82E-05	3.11E-04	2.11E-04	1.50E-04	1.82E-05	3.11E-04	2.11E-04	1.50E-04	2.77E-06	5.43E-05	3.46E-05	2.43E-05	1.51E-06	3.41E-05	1.65E-05	1.20E-05
697	259433.3	4085382	1.75E-05	2.99E-04	2.03E-04	1.44E-04	1.75E-05	2.99E-04	2.03E-04	1.44E-04	2.67E-06	5.22E-05	3.33E-05	2.33E-05	1.45E-06	3.28E-05	1.59E-05	1.15E-05
698	259458.3	4085382	1.68E-05	2.87E-04	1.95E-04	1.38E-04	1.68E-05	2.87E-04	1.95E-04	1.38E-04	2.56E-06	5.01E-05	3.19E-05	2.24E-05	1.39E-06	3.15E-05	1.52E-05	1.11E-05
699	259483.3	4085382	1.61E-05	2.74E-04	1.86E-04	1.32E-04	1.61E-05	2.74E-04	1.86E-04	1.32E-04	2.45E-06	4.79E-05	3.05E-05	2.14E-05	1.33E-06	3.01E-05	1.46E-05	1.06E-05
700	259508.3	4085382	1.54E-05	2.62E-04	1.78E-04	1.26E-04	1.54E-05	2.62E-04	1.78E-04	1.26E-04	2.34E-06	4.58E-05	2.92E-05	2.04E-05	1.27E-06	2.88E-05	1.39E-05	1.01E-05
701	259533.3	4085382	1.47E-05	2.50E-04	1.70E-04	1.20E-04	1.47E-05	2.50E-04	1.70E-04	1.20E-04	2.23E-06	4.37E-05	2.78E-05	1.95E-05	1.21E-06	2.75E-05	1.33E-05	9.64E-06
702	259558.3	4085382	1.4E-05	2.39E-04	1.62E-04	1.15E-04	1.40E-05	2.39E-04	1.62E-04	1.15E-04	2.13E-06	4.17E-05	2.66E-05	1.86E-05	1.16E-06	2.62E-05	1.27E-05	9.21E-06
703	259583.3	4085382	1.34E-05	2.28E-04	1.55E-04	1.10E-04	1.34E-05	2.28E-04	1.55E-04	1.10E-04	2.03E-06	3.98E-05	2.54E-05	1.78E-05	1.10E-06	2.50E-05	1.21E-05	8.80E-06
704	259608.3	4085382	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.28E-05	2.18E-04	1.48E-04	1.05E-04	1.95E-06	3.81E-05	2.43E-05	1.70E-05	1.06E-06	2.40E-05	1.16E-05	8.41E-06
705	259633.3	4085382	1.23E-05	2.09E-04	1.42E-04	1.01E-04	1.23E-05	2.09E-04	1.42E-04	1.01E-04	1.86E-06	3.65E-05	2.33E-05	1.63E-05	1.01E-06	2.29E-05	1.11E-05	8.06E-06
706	259658.3	4085382	1.17E-05	2.00E-04	1.36E-04	9.63E-05	1.17E-05	2.00E-04	1.36E-04	9.63E-05	1.78E-06	3.49E-05	2.22E-05	1.56E-05	9.68E-07	2.19E-05	1.06E-05	7.71E-06
707	259683.3	4085382	1.13E-05	1.92E-04	1.30E-04	9.26E-05	1.13E-05	1.92E-04	1.30E-04	9.26E-05	1.71E-06	3.36E-05	2.14E-05	1.50E-05	9.31E-07	2.11E-05	1.02E-05	7.41E-06
708	259708.3	4085382	1.08E-05	1.85E-04	1.25E-04	8.91E-05	1.08E-05	1.85E-04	1.25E-04	8.91E-05	1.65E-06	3.23E-05	2.06E-05	1.44E-05	8.96E-07	2.03E-05	9.81E-06	7.13E-06
709	259733.3	4085382	1.04E-05	1.78E-04	1.21E-04	8.58E-05	1.04E-05	1.78E-04	1.21E-04	8.58E-05	1.59E-06	3.11E-05	1.98E-05	1.39E-05	8.63E-07	1.96E-05	9.46E-06	6.87E-06
710	259758.3	4085382	1.01E-05	1.72E-04	1.17E-04	8.29E-05	1.01E-05	1.72E-04	1.17E-04	8.29E-05	1.54E-06	3.01E-05	1.92E-05	1.34E-05	8.34E-07	1.89E-05	9.14E-06	6.64E-06
711	259783.3	4085382	9.8E-06	1.67E-04	1.13E-04	8.05E-05	9.80E-06	1.67E-04	1.13E-04	8.05E-05	1.49E-06	2.92E-05	1.86E-05	1.30E-05	8.09E-07	1.83E-05	8.87E-06	6.44E-06
712	259808.3	4085382	9.55E-06	1.63E-04	1.10E-04	7.85E-05	9.55E-06	1.63E-04	1.10E-04	7.85E-05	1.45E-06	2.84E-05	1.81E-05	1.27E-05	7.89E-07	1.79E-05	8.64E-06	6.28E-06
713	259833.3	4085382	9.29E-06	1.58E-04	1.07E-04	7.63E-05	9.29E-06	1.58E-04	1.07E-04	7.63E-05	1.41E-06	2.77E-05	1.76E-05	1.24E-05	7.68E-07	1.74E-05	8.41E-06	6.11E-06
714	259858.3	4085382	9.07E-06	1.55E-04	1.05E-04	7.45E-05	9.07E-06	1.55E-04	1.05E-04	7.45E-05	1.38E-06	2.70E-05	1.72E-05	1.21E-05	7.49E-07	1.70E-05	8.21E-06	5.97E-06
715	259883.3	4085382	8.87E-06	1.51E-04	1.03E-04	7.29E-05	8.87E-06	1.51E-04	1.03E-04	7.29E-05	1.35E-06	2.64E-05	1.68E-05	1.18E-05	7.32E-07	1.66E-05	8.03E-06	5.83E-06
716	259908.3	4085382	8.68E-06	1.48E-04	1.00E-04	7.13E-05	8.68E-06	1.48E-04	1.00E-04	7.13E-05	1.32E-06	2.58E-05	1.65E-05	1.15E-05	7.17E-07	1.62E-05	7.85E-06	5.70E-06
717	259933.3	4085382	8.5E-06	1.45E-04	9.82E-05	6.98E-05	8.50E-06	1.45E-04	9.82E-05	6.98E-05	1.29E-06	2.53E-05	1.61E-05	1.13E-05	7.02E-07	1.59E-05	7.69E-06	5.59E-06
718	259958.3	4085382	8.33E-06	1.42E-04	9.63E-05	6.85E-05	8.33E-06	1.42E-04	9.63E-05	6.85E-05	1.27E-06	2.48E-05	1.58E-05	1.11E-05	6.88E-07	1.56E-05	7.54E-06	5.48E-06
719	259983.3	4085382	8.18E-06	1.40E-04	9.46E-05	6.72E-05	8.18E-06	1.40E-04	9.46E-05	6.72E-05	1.24E-06	2.44E-05	1.55E-05	1.09E-05	6.76E-07	1.53E-05	7.41E-06	5.38E-06
720	258508.3	4085407	4.53E-05	7.72E-04	5.24E-04	3.72E-04	4.53E-05	7.72E-04	5.24E-04	3.72E-04	6.89E-06	1.35E-04	8.60E-05	6.03E-05	3.74E-06	8.48E-05	4.10E-05	2.98E-05
721	258533.3	4085407	4.52E-05	7.71E-04	5.23E-04	3.71E-04	4.52E-05	7.71E-04	5.23E-04	3.71E-04	6.88E-06	1.35E-04	8.58E-05	6.01E-05	3.73E-06	8.46E-05	4.09E-05	2.97E-05
722	258558.3	4085407	4.51E-05	7.69E-04	5.21E-04	3.70E-04	4.51E-05	7.69E-04	5.21E-04	3.70E-04	6.86E-06	1.34E-04	8.56E-05	6.00E-05	3.72E-06	8.44E-05	4.08E-05	2.96E-05
723	258583.3	4085407	4.49E-05	7.66E-04	5.19E-04	3.69E-04	4.49E-05	7.66E-04	5.19E-04	3.69E-04	6.83E-06	1.34E-04	8.53E-05	5.98E-05	3.71E-06	8.41E-05	4.07E-05	2.95E-05
724	258608.3	4085407	4.47E-05	7.63E-04	5.17E-04	3.67E-04	4.47E-05	7.63E-04	5.17E-04	3.67E-04	6.80E-06	1.33E-04	8.49E-05	5.95E-05	3.69E-06	8.37E-05	4.05E-05	2.94E-05
725	258633.3	4085407	4.45E-05	7.58E-04	5.14E-04	3.65E-04	4.45E-05	7.58E-04	5.14E-04	3.65E-04	6.76E-06	1.32E-04	8.44E-05	5.91E-05	3.67E-06	8.32E-05	4.02E-05	2.92E-05
726	258658.3	4085407	4.4E-05	7.51E-04	5.09E-04	3.62E-04	4.40E-05	7.51E-04	5.09E-04	3.62E-04	6.70E-06	1.31E-04	8.36E-05	5.86E-05	3.64E-06	8.24E-05	3.99E-05	2.90E-05
727	258683.3	4085407	4.34E-05	7.40E-04	5.02E-04	3.57E-04	4.34E-05	7.40E-04	5.02E-04	3.57E-04	6.60E-06	1.29E-04	8.24E-05	5.78E-05	3.59E-06	8.13E-05	3.93E-05	2.86E-05
728	258708.3	4085407	4.3E-05	7.33E-04	4.97E-04	3.53E-04	4.30E-05	7.33E-04	4.97E-04	3.53E-04	6.54E-06	1.28E-04	8.16E-05	5.72E-05	3.55E-06	8.05E-05	3.89E-05	2.83E-05
729	258733.3	4085407	4.25E-05	7.25E-04	4.91E-04	3.49E-04	4.25E-05	7.25E-04	4.91E-04	3.49E-04	6.46E-06	1.27E-04	8.07E-05	5.65E-05	3.51E-06	7.96E-05	3.85E-05	2.79E-05
730	258758.3	4085407	4.2E-05	7.15E-04	4.85E-04	3.45E-04	4.20E-05	7.15E-04	4.85E-04	3.45E-04	6.38E-06	1.25E-04	7.96E-05	5.58E-05	3.47E-06	7.85E-05	3.80E-05	2.76E-05
731	258783.3	4085407	4.13E-05	7.05E-04	4.78E-04	3.40E-04	4.13E-05	7.05E-04	4.78E-04	3.40E-04	6.29E-06	1.23E-04	7.84E-05	5.50E-05	3.41E-06	7.74E-05	3.74E-05	2.72E-05
732	258808.3	4085407	4.07E-05	6.93E-04	4.70E-04	3.34E-04	4.07E-05	6.93E-04	4.70E-04	3.34E-04	6.18E-06	1.21E-04	7.71E-05	5.41E-05	3.36E-06	7.61E-05	3.68E-05	2.67E-05
733	258833.3	4085407	3.99E-05	6.80E-04	4.61E-04	3.28E-04	3.99E-05	6.80E-04	4.61E-04	3.28E-04	6.07E-06	1.19E-04	7.57E-05	5.31E-05	3.30E-06	7.47E-05	3.61E-05	2.62E-05
734	258858.3	4085407	3.91E-05	6.66E-04	4.52E-04	3.21E-04	3.91E-05	6.66E-04	4.52E-04	3.21E-04	5.94E-06	1.16E-04	7.42E-05	5.20E-05	3.23E-06	7.31E-05	3.54E-05	2.57E-05
735	258883.3	4085407	3.82E-05	6.51E-04	4.42E-04	3.14E-04	3.82E-05	6.51E-04	4.42E-04	3.14E-04	5.81E-06	1.14E-04	7.25E-05	5.08E-05	3.15E-06	7.15E-05	3.46E-05	2.51E-05
736	258908.3	4085407	3.73E-05	6.35E-04	4.31E-04	3.06E-04	3.73E-05	6.35E-04	4.31E-04	3.06E-04	5.67E-06	1.11E-04	7.07E-05	4.96E-05	3.08E-06	6.97E-05	3.37E-05	2.45E-05
737	258933.3	4085407	3.63E-05	6.18E-04	4.19E-04	2.98E-04	3.63E-05	6.18E-04	4.19E-04	2.98E-04	5.52E-06	1.08E-04	6.88E-05	4.82E-05	3.00E-06	6.79E-05	3.28E-05	2.38E-05
738	258958.3	4085407	3.52E-05	6.01E-04	4.07E-04	2.89E-04	3.52E-05	6.01E-04	4.07E-04	2.89E-04	5.36E-06	1.05E-04	6.69E-05	4.69E-05	2.91E-06	6.60E-05	3.19E-05	2.32E-05
739	258983.3	4085407	3.42E-05	5.83E-04	3.95E-04	2.81E-04	3.42E-05	5.83E-04	3.95E-04	2.81E-04	5.20E-06	1.02E-04	6.48E-05	4.55E-05	2.82E-06	6.40E-05	3.09E-05	2.25E-05
740	259008.3	4085407	3.31E-05	5.64E-04	3.82E-04	2.72E-04	3.31E-05	5.64E-04	3.82E-04	2.72E-04	5.03E-06	9.85E-05	6.28E-05	4.40E-05	2.73E-06	6.19E-05	2.99E-05	2.17E-05
741	259033.3	4085407	3.2E-05	5.45E-04	3.70E-04	2.63E-04	3.20E-05	5.45E-04	3.70E-04	2.63E-04	4.86E-06	9.52E-05	6.07E-05	4.25E-05	2.64E-06	5.98E-05	2.89E-05	2.10E-05
742	259058.3	4085407	3.08E-05	5.26E-04	3.57E-04	2.53E-04	3.08E-05	5.26E-04	3.57E-04	2.53E-04	4.69E-06	9.19E-05	5.85E-05	4.10E-05	2.55E-06	5.77E-05	2.79E-05	2.03E-05
743	259083.3	4085407	2.97E-05	5.07E-04	3.43E-04	2.44E-04	2.97E-05	5.07E-04	3.43E-04	2.44E-04	4.52E-06	8.85E-05	5.64E-05	3.95E-05	2.45E-06	5.56E-05	2.69E-05	1.95E-05
744	259108.3	4085407	2.86E-05	4.87E-04	3.30E-04	2.35E-04	2.86E-05	4.87E-04	3.30E-04	2.35E-04	4.34E-06	8.51E-05	5.42E-05	3.80E-05	2.36E-06	5.35E-05	2.58E-05	1.88E-05
745	259133.3	4085407	2.74E-05	4.67E-04	3.17E-04	2.25E-04	2.74E-05	4.67E-04	3.17E-04	2.25E-04	4.17E-06	8.16E-05	5.20E-05	3.64E-05	2.26E-06	5.13E-05	2.48E-05	1.80E-05
746	259158.3	4085407	2.62E-05	4.47E-04	3.03E-04	2.15E-04	2.62E-05	4.47E-04	3.03E-04	2.15E-04	3.98E-06	7.80E-05	4.97E-05	3.48E-05	2.16E-06	4.90E-05	2.37E-05	1.72E-05
747	259183.3	4085407	2.5E-05	4.26E-04	2.89E-04	2.05E-04	2.50E-05	4.26E-04	2.89E-04	2.05E-04	3.80E-06	7.44E-05	4.74E-05	3.33E-05	2.06E-06	4.68E-05	2.26E-05	1.64E-05
748	259208.3	4085407	2.38E-05	4.06E-04	2.75E-04	1.96E-04	2.38E-05	4.06E-04	2.75E-04	1.96E-04	3.62E-06	7.09E-05	4.52E-05	3.17E-05	1.97E-06	4.46E-05	2.16E-05	1.57E-05
749	259233.3	4085407	2.27E-05	3.87E-04	2.62E-04	1.86E-04	2.27E-05	3.87E-04	2.62E-04	1.86E-04	3.45E-06	6.75E-05	4.30E-05	3.02E-05	1.87E-06	4.24E-05	2.05E-05	1.49E-05
750	259258.3	4085407	2.16E-05	3.69E-04	2.50E-04	1.78E-04	2.16E-05	3.69E-04	2.50E-04	1.78E-04	3.29E-06	6.44E-05	4.10E-05	2.88E-05	1.79E-06	4.05E-05	1.96E-05	1.42E-05
751	259283.3	4085407	2.07E-05	3.53E-04	2.39E-04	1.70E-04	2.07E-05	3.53E-04	2.39E-04	1.70E-04	3.15E-06	6.16E-05	3.93E-05	2.75E-05	1.71E-06	3.87E-05	1.87E-05	1.36E-05
752	259308.3	4085407	1.99E-05	3.39E-04	2.30E-04	1.63E-04	1.99E-05	3.39E-04	2.30E-04	1.63E-04	3.02E-06	5.91E-05	3.77E-05	2.64E-05	1.64E-06	3.72E-05	1.80E-05	1.31E-05
753	259333.3	4085407	1.91E-05	3.26E-04	2.21E-04	1.57E-04	1.91E-05	3.26E-04	2.21E-04	1.57E-04	2.91E-06	5.70E-05	3.63E-05	2.54E-05	1.58E-06	3.58E-05	1.73E-05	1.26E-05
754	259358.3	4085407	1.85E-05	3.15E-04	2.13E-04	1.52E-04	1.85E-05	3.15E-04	2.13E-04	1.52E-04	2.81E-06	5.50E-05	3.50E-05	2.46E-05	1.52E-06	3.46E-05	1.67E-05	1.21E-05
755	259383.3	4085407	1.78E-05	3.04E-04	2.06E-04	1.47E-04	1.78E-05	3.04E-04	2.06E-04	1.47E-04	2.71E-06	5.31E-05	3.39E-05	2.37E-05	1.47E-06	3.34E-05	1.61E-05	1.17E-05
756	259408.3	4085407	1.72E-05	2.94E-04	1.99E-04	1.41E-04	1.72E-05	2.94E-04	1.99E-04	1.41E-04	2.62E-06	5.13E-05	3.27E-05	2.29E-05	1.42E-06	3.22E-05	1.56E-05	1.13E-05
757	259433.3	4085407	1.66E-05	2.83E-04	1.92E-04	1.36E-04	1.66E-05	2.83E-04	1.92E-04	1.36E-04	2.52E-06	4.94E-05	3.15E-05	2.21E-05	1.37E-06	3.11E-05	1.50E-05	1.09E-05
758	259458.3	4085407	1.6E-05	2.72E-04	1.85E-04	1.31E-04	1.60E-05	2.72E-04	1.85E-04	1.31E-04	2.43E-06	4.76E-05	3.03E-05	2.12E-05	1.32E-06	2.99E-05	1.45E-05	1.05E-05
759	259483.3	4085407	1.54E-05	2.62E-04	1.78E-04	1.26E-04	1.54E-05	2.62E-04	1.78E-04	1.26E-04	2.34E-06	4.57E-05	2.91E-05	2.04E-05	1.27E-06	2.87E-05	1.39E-05	1.01E-05
760	259508.3	4085407	1.47E-05	2.51E-04	1.70E-04	1.21E-04	1.47E-05	2.51E-04	1.70E-04	1.21E-04	2.24E-06	4.38E-05	2.79E-05	1.96E-05	1.21E-06	2.75E-05	1.33E-05	9.67E-06
761	259533.3	4085407	1.41E-05	2.40E-04	1.63E-04	1.16E-04	1.41E-05	2.40E-04	1.63E-04	1.16E-04	2.14E-06	4.19E-05	2.67E-05	1.87E-05	1.16E-06	2.63E-05	1.27E-05	9.25E-06
762	259558.3	4085407	1.35E-05	2.29E-04	1.56E-04	1.11E-04	1.35E-05	2.29E-04	1.56E-04	1.11E-04	2.05E-06	4.01E-05	2.55E-05	1.79E-05	1.11E-06	2.52E-05	1.22E-05	8.85E-06
763	259583.3	4085407	1.29E-05	2.19E-04	1.49E-04	1.06E-04	1.29E-05	2.19E-04	1.49E-04	1.06E-04	1.96E-06	3.83E-05	2.44E-05	1.71E-05	1.06E-06	2.41E-05	1.16E-05	8.46E-06
764	259608.3	4085407	1.23E-05	2.10E-04	1.42E-04	1.01E-04	1.23E-05	2.10E-04	1.42E-04	1.01E-04	1.87E-06	3.67E-05	2.34E-05	1.64E-05	1.02E-06	2.30E-05	1.11E-05	8.10E-06
765	259633.3	4085407	1.18E-05	2.01E-04	1.36E-04	9.69E-05	1.18E-05	2.01E-04	1.36E-04	9.69E-05	1.79E-06	3.51E-05	2.24E-05	1.57E-05	9.74E-07	2.21E-05	1.07E-05	7.75E-06
766	259658.3	4085407	1.13E-05	1.92E-04	1.30E-04	9.27E-05	1.13E-05	1.92E-04	1.30E-04	9.27E-05	1.72E-06	3.36E-05	2.14E-05	1.50E-05	9.32E-07	2.11E-05	1.02E-05	7.42E-06
767	259683.3	4085407	1.08E-05	1.85E-04	1.25E-04	8.91E-05	1.08E-05	1.85E-04	1.25E-04	8.91E-05	1.65E-06	3.23E-05	2.06E-05	1.44E-05	8.95E-07	2.03E-05	9.81E-06	7.13E-06
768	259708.3	4085407	1.04E-05	1.78E-04	1.20E-04	8.55E-05	1.04E-05	1.78E-04	1.20E-04	8.55E-05	1.58E-06	3.10E-05	1.98E-05	1.38E-05	8.60E-07	1.95E-05	9.42E-06	6.85E-06
769	259733.3	4085407	1E-05	1.71E-04	1.16E-04	8.24E-05	1.00E-05	1.71E-04	1.16E-04	8.24E-05	1.53E-06	2.99E-05	1.90E-05	1.33E-05	8.28E-07	1.88E-05	9.08E-06	6.60E-06
770	259758.3	4085407	9.7E-06	1.65E-04	1.12E-04	7.97E-05	9.70E-06	1.65E-04	1.12E-04	7.97E-05	1.48E-06	2.89E-05	1.84E-05	1.29E-05	8.01E-07	1.82E-05	8.78E-06	6.38E-06
771	259783.3	4085407	9.41E-06	1.61E-04	1.09E-04	7.73E-05	9.41E-06	1.61E-04	1.09E-04	7.73E-05	1.43E-06	2.80E-05	1.79E-05	1.25E-05	7.77E-07	1.76E-05	8.52E-06	6.19E-06
772	259808.3	4085407	9.15E-06	1.56E-04	1.06E-04	7.51E-05	9.15E-06	1.56E-04	1.06E-04	7.51E-05	1.39E-06	2.72E-05	1.74E-05	1.22E-05	7.55E-07	1.71E-05	8.28E-06	6.01E-06
773	259833.3	4085407	8.89E-06	1.52E-04	1.03E-04	7.30E-05	8.89E-06	1.52E-04	1.03

789	258733.3	4085432	3.96E-05	6.75E-04	4.58E-04	3.25E-04	3.96E-05	6.75E-04	4.58E-04	3.25E-04	6.02E-06	1.18E-04	7.51E-05	5.27E-05	3.27E-06	7.41E-05	3.58E-05	2.60E-05
790	258758.3	4085432	3.9E-05	6.66E-04	4.51E-04	3.21E-04	3.90E-05	6.66E-04	4.51E-04	3.21E-04	5.94E-06	1.16E-04	7.41E-05	5.19E-05	3.22E-06	7.31E-05	3.53E-05	2.57E-05
791	258783.3	4085432	3.84E-05	6.55E-04	4.44E-04	3.16E-04	3.84E-05	6.55E-04	4.44E-04	3.16E-04	5.84E-06	1.14E-04	7.29E-05	5.11E-05	3.17E-06	7.19E-05	3.48E-05	2.53E-05
792	258808.3	4085432	3.77E-05	6.43E-04	4.36E-04	3.10E-04	3.77E-05	6.43E-04	4.36E-04	3.10E-04	5.74E-06	1.12E-04	7.16E-05	5.02E-05	3.12E-06	7.06E-05	3.42E-05	2.48E-05
793	258833.3	4085432	3.7E-05	6.31E-04	4.28E-04	3.04E-04	3.70E-05	6.31E-04	4.28E-04	3.04E-04	5.63E-06	1.10E-04	7.02E-05	4.92E-05	3.06E-06	6.92E-05	3.35E-05	2.43E-05
794	258858.3	4085432	3.62E-05	6.17E-04	4.19E-04	2.97E-04	3.62E-05	6.17E-04	4.19E-04	2.97E-04	5.51E-06	1.08E-04	6.87E-05	4.82E-05	2.99E-06	6.78E-05	3.28E-05	2.38E-05
795	258883.3	4085432	3.54E-05	6.03E-04	4.09E-04	2.91E-04	3.54E-05	6.03E-04	4.09E-04	2.91E-04	5.38E-06	1.05E-04	6.71E-05	4.71E-05	2.92E-06	6.62E-05	3.20E-05	2.33E-05
796	258908.3	4085432	3.45E-05	5.88E-04	3.99E-04	2.83E-04	3.45E-05	5.88E-04	3.99E-04	2.83E-04	5.25E-06	1.03E-04	6.55E-05	4.59E-05	2.85E-06	6.46E-05	3.12E-05	2.27E-05
797	258933.3	4085432	3.36E-05	5.72E-04	3.88E-04	2.76E-04	3.36E-05	5.72E-04	3.88E-04	2.76E-04	5.11E-06	1.00E-04	6.37E-05	4.47E-05	2.77E-06	6.28E-05	3.04E-05	2.21E-05
798	258958.3	4085432	3.26E-05	5.56E-04	3.77E-04	2.68E-04	3.26E-05	5.56E-04	3.77E-04	2.68E-04	4.96E-06	9.71E-05	6.19E-05	4.34E-05	2.69E-06	6.10E-05	2.95E-05	2.14E-05
799	258983.3	4085432	3.16E-05	5.39E-04	3.66E-04	2.60E-04	3.16E-05	5.39E-04	3.66E-04	2.60E-04	4.81E-06	9.42E-05	6.00E-05	4.21E-05	2.61E-06	5.92E-05	2.86E-05	2.08E-05
800	259008.3	4085432	3.06E-05	5.22E-04	3.54E-04	2.52E-04	3.06E-05	5.22E-04	3.54E-04	2.52E-04	4.66E-06	9.12E-05	5.81E-05	4.07E-05	2.53E-06	5.73E-05	2.77E-05	2.01E-05
801	259033.3	4085432	2.96E-05	5.05E-04	3.42E-04	2.43E-04	2.96E-05	5.05E-04	3.42E-04	2.43E-04	4.50E-06	8.81E-05	5.62E-05	3.94E-05	2.44E-06	5.54E-05	2.68E-05	1.95E-05
802	259058.3	4085432	2.86E-05	4.87E-04	3.30E-04	2.35E-04	2.86E-05	4.87E-04	3.30E-04	2.35E-04	4.35E-06	8.51E-05	5.42E-05	3.80E-05	2.36E-06	5.35E-05	2.59E-05	1.88E-05
803	259083.3	4085432	2.75E-05	4.70E-04	3.18E-04	2.26E-04	2.75E-05	4.70E-04	3.18E-04	2.26E-04	4.19E-06	8.20E-05	5.23E-05	3.66E-05	2.27E-06	5.15E-05	2.49E-05	1.81E-05
804	259108.3	4085432	2.65E-05	4.52E-04	3.06E-04	2.18E-04	2.65E-05	4.52E-04	3.06E-04	2.18E-04	4.03E-06	7.89E-05	5.03E-05	3.52E-05	2.19E-06	4.96E-05	2.40E-05	1.74E-05
805	259133.3	4085432	2.54E-05	4.34E-04	2.94E-04	2.09E-04	2.54E-05	4.34E-04	2.94E-04	2.09E-04	3.87E-06	7.57E-05	4.83E-05	3.38E-05	2.10E-06	4.76E-05	2.30E-05	1.67E-05
806	259158.3	4085432	2.44E-05	4.15E-04	2.82E-04	2.00E-04	2.44E-05	4.15E-04	2.82E-04	2.00E-04	3.70E-06	7.25E-05	4.62E-05	3.24E-05	2.01E-06	4.56E-05	2.20E-05	1.60E-05
807	259183.3	4085432	2.33E-05	3.97E-04	2.69E-04	1.91E-04	2.33E-05	3.97E-04	2.69E-04	1.91E-04	3.54E-06	6.93E-05	4.42E-05	3.10E-05	1.92E-06	4.36E-05	2.11E-05	1.53E-05
808	259208.3	4085432	2.22E-05	3.79E-04	2.57E-04	1.82E-04	2.22E-05	3.79E-04	2.57E-04	1.82E-04	3.38E-06	6.61E-05	4.21E-05	2.95E-05	1.83E-06	4.16E-05	2.01E-05	1.46E-05
809	259233.3	4085432	2.12E-05	3.61E-04	2.45E-04	1.74E-04	2.12E-05	3.61E-04	2.45E-04	1.74E-04	3.22E-06	6.31E-05	4.02E-05	2.82E-05	1.75E-06	3.96E-05	1.92E-05	1.39E-05
810	259258.3	4085432	2.02E-05	3.45E-04	2.34E-04	1.66E-04	2.02E-05	3.45E-04	2.34E-04	1.66E-04	3.08E-06	6.03E-05	3.84E-05	2.69E-05	1.67E-06	3.79E-05	1.83E-05	1.33E-05
811	259283.3	4085432	1.94E-05	3.31E-04	2.24E-04	1.59E-04	1.94E-05	3.31E-04	2.24E-04	1.59E-04	2.95E-06	5.78E-05	3.68E-05	2.58E-05	1.60E-06	3.63E-05	1.76E-05	1.27E-05
812	259308.3	4085432	1.87E-05	3.18E-04	2.16E-04	1.53E-04	1.87E-05	3.18E-04	2.16E-04	1.53E-04	2.84E-06	5.55E-05	3.54E-05	2.48E-05	1.54E-06	3.49E-05	1.69E-05	1.23E-05
813	259333.3	4085432	1.8E-05	3.07E-04	2.08E-04	1.48E-04	1.80E-05	3.07E-04	2.08E-04	1.48E-04	2.74E-06	5.36E-05	3.42E-05	2.39E-05	1.49E-06	3.37E-05	1.63E-05	1.18E-05
814	259358.3	4085432	1.74E-05	2.97E-04	2.01E-04	1.43E-04	1.74E-05	2.97E-04	2.01E-04	1.43E-04	2.65E-06	5.19E-05	3.30E-05	2.32E-05	1.44E-06	3.26E-05	1.58E-05	1.15E-05
815	259383.3	4085432	1.69E-05	2.88E-04	1.95E-04	1.39E-04	1.69E-05	2.88E-04	1.95E-04	1.39E-04	2.57E-06	5.02E-05	3.20E-05	2.24E-05	1.39E-06	3.16E-05	1.53E-05	1.11E-05
816	259408.3	4085432	1.63E-05	2.78E-04	1.89E-04	1.34E-04	1.63E-05	2.78E-04	1.89E-04	1.34E-04	2.48E-06	4.86E-05	3.10E-05	2.17E-05	1.35E-06	3.06E-05	1.48E-05	1.07E-05
817	259433.3	4085432	1.58E-05	2.69E-04	1.82E-04	1.30E-04	1.58E-05	2.69E-04	1.82E-04	1.30E-04	2.40E-06	4.70E-05	2.99E-05	2.10E-05	1.30E-06	2.95E-05	1.43E-05	1.04E-05
818	259458.3	4085432	1.52E-05	2.59E-04	1.76E-04	1.25E-04	1.52E-05	2.59E-04	1.76E-04	1.25E-04	2.31E-06	4.53E-05	2.89E-05	2.02E-05	1.26E-06	2.85E-05	1.38E-05	1.00E-05
819	259483.3	4085432	1.46E-05	2.49E-04	1.69E-04	1.20E-04	1.46E-05	2.49E-04	1.69E-04	1.20E-04	2.22E-06	4.36E-05	2.78E-05	1.95E-05	1.21E-06	2.74E-05	1.32E-05	9.61E-06
820	259508.3	4085432	1.4E-05	2.39E-04	1.62E-04	1.15E-04	1.40E-05	2.39E-04	1.62E-04	1.15E-04	2.13E-06	4.18E-05	2.66E-05	1.87E-05	1.16E-06	2.63E-05	1.27E-05	9.23E-06
821	259533.3	4085432	1.35E-05	2.31E-04	1.56E-04	1.11E-04	1.35E-05	2.31E-04	1.56E-04	1.11E-04	2.06E-06	4.03E-05	2.57E-05	1.80E-05	1.12E-06	2.53E-05	1.22E-05	8.89E-06
822	259558.3	4085432	1.3E-05	2.21E-04	1.50E-04	1.06E-04	1.30E-05	2.21E-04	1.50E-04	1.06E-04	1.97E-06	3.86E-05	2.46E-05	1.72E-05	1.07E-06	2.42E-05	1.17E-05	8.51E-06
823	259583.3	4085432	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.89E-06	3.69E-05	2.35E-05	1.65E-05	1.02E-06	2.32E-05	1.12E-05	8.15E-06
824	259608.3	4085432	1.19E-05	2.03E-04	1.37E-04	9.76E-05	1.19E-05	2.03E-04	1.37E-04	9.76E-05	1.81E-06	3.54E-05	2.25E-05	1.58E-05	9.81E-07	2.22E-05	1.07E-05	7.81E-06
825	259633.3	4085432	1.14E-05	1.94E-04	1.32E-04	9.35E-05	1.14E-05	1.94E-04	1.32E-04	9.35E-05	1.73E-06	3.39E-05	2.16E-05	1.51E-05	9.40E-07	2.13E-05	1.03E-05	7.48E-06
826	259658.3	4085432	1.09E-05	1.86E-04	1.26E-04	8.94E-05	1.09E-05	1.86E-04	1.26E-04	8.94E-05	1.66E-06	3.24E-05	2.07E-05	1.45E-05	8.99E-07	2.04E-05	9.85E-06	7.16E-06
827	259683.3	4085432	1.05E-05	1.78E-04	1.21E-04	8.59E-05	1.05E-05	1.78E-04	1.21E-04	8.59E-05	1.59E-06	3.11E-05	1.98E-05	1.39E-05	8.64E-07	1.96E-05	9.47E-06	6.88E-06
828	259708.3	4085432	1.01E-05	1.71E-04	1.16E-04	8.26E-05	1.01E-05	1.71E-04	1.16E-04	8.26E-05	1.53E-06	2.99E-05	1.91E-05	1.34E-05	8.30E-07	1.88E-05	9.10E-06	6.61E-06
829	259733.3	4085432	9.68E-06	1.65E-04	1.12E-04	7.95E-05	9.68E-06	1.65E-04	1.12E-04	7.95E-05	1.47E-06	2.88E-05	1.84E-05	1.29E-05	8.00E-07	1.81E-05	8.76E-06	6.37E-06
830	259758.3	4085432	9.36E-06	1.60E-04	1.08E-04	7.69E-05	9.36E-06	1.60E-04	1.08E-04	7.69E-05	1.42E-06	2.79E-05	1.78E-05	1.24E-05	7.73E-07	1.75E-05	8.47E-06	6.15E-06
831	259783.3	4085432	9.07E-06	1.55E-04	1.05E-04	7.45E-05	9.07E-06	1.55E-04	1.05E-04	7.45E-05	1.38E-06	2.70E-05	1.72E-05	1.21E-05	7.49E-07	1.70E-05	8.21E-06	5.96E-06
832	259808.3	4085432	8.79E-06	1.50E-04	1.02E-04	7.22E-05	8.79E-06	1.50E-04	1.02E-04	7.22E-05	1.34E-06	2.62E-05	1.67E-05	1.17E-05	7.26E-07	1.64E-05	7.95E-06	5.78E-06
833	259833.3	4085432	8.54E-06	1.46E-04	9.87E-05	7.01E-05	8.54E-06	1.46E-04	9.87E-05	7.01E-05	1.30E-06	2.54E-05	1.62E-05	1.14E-05	7.05E-07	1.60E-05	7.73E-06	5.61E-06
834	259858.3	4085432	8.32E-06	1.42E-04	9.62E-05	6.84E-05	8.32E-06	1.42E-04	9.62E-05	6.84E-05	1.27E-06	2.48E-05	1.58E-05	1.11E-05	6.87E-07	1.56E-05	7.53E-06	5.47E-06
835	259883.3	4085432	8.12E-06	1.38E-04	9.39E-05	6.67E-05	8.12E-06	1.38E-04	9.39E-05	6.67E-05	1.23E-06	2.42E-05	1.54E-05	1.08E-05	6.71E-07	1.52E-05	7.35E-06	5.34E-06
836	259908.3	4085432	7.93E-06	1.35E-04	9.17E-05	6.51E-05	7.93E-06	1.35E-04	9.17E-05	6.51E-05	1.21E-06	2.36E-05	1.50E-05	1.05E-05	6.55E-07	1.48E-05	7.18E-06	5.21E-06
837	259933.3	4085432	7.76E-06	1.32E-04	8.97E-05	6.37E-05	7.76E-06	1.32E-04	8.97E-05	6.37E-05	1.18E-06	2.31E-05	1.47E-05	1.03E-05	6.41E-07	1.45E-05	7.02E-06	5.10E-06
838	259958.3	4085432	7.6E-06	1.30E-04	8.79E-05	6.24E-05	7.60E-06	1.30E-04	8.79E-05	6.24E-05	1.16E-06	2.26E-05	1.44E-05	1.01E-05	6.28E-07	1.42E-05	6.88E-06	5.00E-06
839	259983.3	4085432	7.46E-06	1.27E-04	8.62E-05	6.13E-05	7.46E-06	1.27E-04	8.62E-05	6.13E-05	1.13E-06	2.22E-05	1.42E-05	9.92E-06	6.16E-07	1.40E-05	6.75E-06	4.90E-06
840	258508.3	4085457	4.04E-05	6.89E-04	4.67E-04	3.32E-04	4.04E-05	6.89E-04	4.67E-04	3.32E-04	6.15E-06	1.20E-04	7.67E-05	5.38E-05	3.34E-06	7.57E-05	3.66E-05	2.66E-05
841	258533.3	4085457	4.02E-05	6.86E-04	4.65E-04	3.31E-04	4.02E-05	6.86E-04	4.65E-04	3.31E-04	6.12E-06	1.20E-04	7.64E-05	5.35E-05	3.32E-06	7.53E-05	3.64E-05	2.65E-05
842	258558.3	4085457	4E-05	6.82E-04	4.63E-04	3.29E-04	4.00E-05	6.82E-04	4.63E-04	3.29E-04	6.09E-06	1.19E-04	7.59E-05	5.32E-05	3.31E-06	7.49E-05	3.62E-05	2.63E-05
843	258583.3	4085457	3.98E-05	6.78E-04	4.60E-04	3.27E-04	3.98E-05	6.78E-04	4.60E-04	3.27E-04	6.05E-06	1.18E-04	7.54E-05	5.29E-05	3.28E-06	7.44E-05	3.60E-05	2.61E-05
844	258608.3	4085457	3.95E-05	6.73E-04	4.56E-04	3.24E-04	3.95E-05	6.73E-04	4.56E-04	3.24E-04	6.00E-06	1.17E-04	7.49E-05	5.25E-05	3.26E-06	7.38E-05	3.57E-05	2.59E-05
845	258633.3	4085457	3.89E-05	6.63E-04	4.50E-04	3.20E-04	3.89E-05	6.63E-04	4.50E-04	3.20E-04	5.91E-06	1.16E-04	7.38E-05	5.17E-05	3.21E-06	7.28E-05	3.52E-05	2.56E-05
846	258658.3	4085457	3.84E-05	6.55E-04	4.44E-04	3.15E-04	3.84E-05	6.55E-04	4.44E-04	3.15E-04	5.84E-06	1.14E-04	7.29E-05	5.11E-05	3.17E-06	7.19E-05	3.48E-05	2.52E-05
847	258683.3	4085457	3.8E-05	6.47E-04	4.39E-04	3.12E-04	3.80E-05	6.47E-04	4.39E-04	3.12E-04	5.77E-06	1.13E-04	7.20E-05	5.05E-05	3.14E-06	7.11E-05	3.44E-05	2.50E-05
848	258708.3	4085457	3.75E-05	6.39E-04	4.33E-04	3.08E-04	3.75E-05	6.39E-04	4.33E-04	3.08E-04	5.70E-06	1.12E-04	7.11E-05	4.99E-05	3.10E-06	7.02E-05	3.39E-05	2.46E-05
849	258733.3	4085457	3.7E-05	6.30E-04	4.27E-04	3.04E-04	3.70E-05	6.30E-04	4.27E-04	3.04E-04	5.62E-06	1.10E-04	7.01E-05	4.92E-05	3.05E-06	6.92E-05	3.35E-05	2.43E-05
850	258758.3	4085457	3.64E-05	6.21E-04	4.21E-04	2.99E-04	3.64E-05	6.21E-04	4.21E-04	2.99E-04	5.53E-06	1.08E-04	6.91E-05	4.84E-05	3.01E-06	6.81E-05	3.29E-05	2.39E-05
851	258783.3	4085457	3.58E-05	6.10E-04	4.14E-04	2.94E-04	3.58E-05	6.10E-04	4.14E-04	2.94E-04	5.44E-06	1.07E-04	6.79E-05	4.76E-05	2.96E-06	6.70E-05	3.24E-05	2.35E-05
852	258808.3	4085457	3.51E-05	5.99E-04	4.06E-04	2.89E-04	3.51E-05	5.99E-04	4.06E-04	2.89E-04	5.34E-06	1.05E-04	6.66E-05	4.67E-05	2.90E-06	6.57E-05	3.18E-05	2.31E-05
853	258833.3	4085457	3.44E-05	5.87E-04	3.98E-04	2.83E-04	3.44E-05	5.87E-04	3.98E-04	2.83E-04	5.23E-06	1.03E-04	6.53E-05	4.58E-05	2.84E-06	6.44E-05	3.12E-05	2.26E-05
854	258858.3	4085457	3.37E-05	5.74E-04	3.89E-04	2.77E-04	3.37E-05	5.74E-04	3.89E-04	2.77E-04	5.12E-06	1.00E-04	6.39E-05	4.48E-05	2.78E-06	6.30E-05	3.05E-05	2.21E-05
855	258883.3	4085457	3.29E-05	5.61E-04	3.80E-04	2.70E-04	3.29E-05	5.61E-04	3.80E-04	2.70E-04	5.00E-06	9.79E-05	6.24E-05	4.37E-05	2.72E-06	6.15E-05	2.98E-05	2.16E-05
856	258908.3	4085457	3.21E-05	5.47E-04	3.71E-04	2.63E-04	3.21E-05	5.47E-04	3.71E-04	2.63E-04	4.87E-06	9.55E-05	6.08E-05	4.26E-05	2.65E-06	6.00E-05	2.90E-05	2.11E-05
857	258933.3	4085457	3.12E-05	5.32E-04	3.61E-04	2.56E-04	3.12E-05	5.32E-04	3.61E-04	2.56E-04	4.74E-06	9.29E-05	5.92E-05	4.15E-05	2.58E-06	5.84E-05	2.82E-05	2.05E-05
858	258958.3	4085457	3.03E-05	5.17E-04	3.50E-04	2.49E-04	3.03E-05	5.17E-04	3.50E-04	2.49E-04	4.61E-06	9.02E-05	5.75E-05	4.03E-05	2.50E-06	5.67E-05	2.74E-05	1.99E-05
859	258983.3	4085457	2.94E-05	5.01E-04	3.40E-04	2.41E-04	2.94E-05	5.01E-04	3.40E-04	2.41E-04	4.47E-06	8.75E-05	5.58E-05	3.91E-05	2.43E-06	5.50E-05	2.66E-05	1.93E-05
860	259008.3	4085457	2.85E-05	4.85E-04	3.29E-04	2.34E-04	2.85E-05	4.85E-04	3.29E-04	2.34E-04	4.33E-06	8.47E-05	5.40E-05	3.78E-05	2.35E-06	5.33E-05	2.58E-05	1.87E-05
861	259033.3	4085457	2.75E-05	4.69E-04	3.18E-04	2.26E-04	2.75E-05	4.69E-04	3.18E-04	2.26E-04	4.18E-06	8.20E-05	5.22E-05	3.66E-05	2.27E-06	5.15E-05	2.49E-05	1.81E-05
862	259058.3	4085457	2.66E-05	4.53E-04	3.07E-04	2.18E-04	2.66E-05	4.53E-04	3.07E-04	2.18E-04	4.04E-06	7.92E-05	5.04E-05	3.54E-05	2.20E-06	4.97E-05	2.41E-05	1.75E-05
863	259083.3	4085457	2.56E-05	4.37E-04	2.96E-04	2.11E-04	2.56E-05	4.37E-04	2.96E-04	2.11E-04	3.90E-06	7.63E-05	4.86E-05	3.41E-05	2.12E-06	4.80E-05	2.32E-05	1.69E-05
864	259108.3	4085457	2.47E-05	4.21E-04	2.85E-04	2.03E-04	2.47E-05	4.21E-04	2.85E-04	2.03E-04	3.75E-06	7.35E-05	4.68E-05	3.28E-05	2.04E-06	4.62E-05	2.23E-05	1.62E-05
865	259133.3	4085457	2.37E-05	4.04E-04	2.74E-04	1.95E-04	2.37E-05	4.04E-04	2.74E-04	1.95E-04	3.61E-06	7.06E-05	4.50E-05	3.15E-05	1.96E-06	4.44E-05	2.15E-05	1.56E-05
866	259158.3	4085457	2.27E-05	3.88E-04	2.63E-04	1.87E-04	2.27E-05	3.88E-04	2.63E-04	1.87E-04	3.46E-06	6.77E-05	4.31E-05	3.02E-05	1.88E-06	4.25E-05	2.06E-05	1.49E-05
867	259183.3	4085457	2.18E-05	3.71E-04	2.51E-04	1.79E-04	2.18E-05	3.71E-04	2.51E-04	1.79E-04	3.31E-06	6.48E-05	4.13E-05	2.89E-05	1.80E-06	4.07E-05	1.97E-05	1.43E-05
868	259208.3	4085457	2.08E-05	3.54E-04	2.40E-04	1.71E-04	2.08E-05	3.54E-04	2.40E-04	1.71E-04	3.16E-06	6.19E-05	3.94E-05	2.76E-05	1.72E-06	3.89E-05	1.88E-05	1.37E-05
869	259233.3	4085457	1.99E-05	3.39E-04	2.30E-04	1.63E-04	1.99E-05	3.39E-04	2.30E-04	1.63E-04	3.02E-06	5.91E-05	3.77E-05	2.64E-05	1.64E-06	3.72E-05	1.80E-05	1.31E-05
870	259258.3	4085457	1.9E-05	3.24E-04	2.20E-04	1.56E-04	1.90E-05	3.24E-04	2.20E-04	1.56E-04	2.89E-06	5.66E-05	3.61E-05	2.53E-05	1.57E-06	3.56E-05	1.72E-05	1.25E-05
871	259283.3	4085457	1.82E-05	3.11E-04	2.11E-04	1.50E-04	1.82E-05	3.11E-04	2.11E-04	1.50E-04	2.77E-06	5.43E-05	3.46E-05	2.43E-05	1.51E-06	3.41E-05	1.65E-05	1.20E-05
872	259308.3	4085457	1.76E-05	3.00E-04	2.03E-04	1.44E-04	1.76E-05	3.00E-04	2.03E-04	1.44E-04	2.67E-06	5.23E-05	3.33E-05	2.34E-05	1.45E-06	3.29E-05	1.59E-05	1.16E-05
873	259333.3	4085457	1.7E-05	2.90E-04	1.96E-04	1.40E-04	1.70E-05	2.90E-04	1.96E-04	1.40E-04	2.58E-06	5.06E-05	3.22E-05	2.26E-05	1.40E-06	3.18E-05	1.54E-05	1.12E-05
874	259358.3	4085457	1.65E-05	2.81E-04	1.90E-04	1.35E-04	1.65E-05	2.81E-04	1.90E-04	1.35E-04	2.50E-06	4.90E-05	3.13E-05	2.19E-05	1.36E-06	3.08E-05	1.49E-05	1.08E-05
875	259383.3	4085457	1.6E-05	2.73E-04	1.85E-04	1.31E-04	1.60E-05	2.73E-04	1.85E-04	1.31E-04	2.43E-06	4.76E-05	3.03E-05	2.13E-05	1.32E-06	2.99E-05	1.45E-05	1.05E-05
876	259408.3	4085457	1.55E-05	2.64E-04	1.79E-04	1.27E-04	1.55E-05	2.64E-04	1.79E-04	1.27E-04	2.36E-06	4.62E-05	2.94E-05	2.06E-05	1.28E-06	2.90E-05	1.40E-05	1.02E-05
877	259433.3	4085457	1.5E-05	2.56E-04	1.74E-04	1.23E-04	1.50E-05	2.56E-04	1.74E-04	1.23E-04	2.28E-06	4.47E-05	2.85E-05	2.00E-05	1.24E-06	2.81E-05	1.36E-05	9.88E-06
878	259458.3	4085457	1.45E-05	2.48E-04	1.68E-04	1.19E-04	1.45E-05	2.48E-04	1.68E-04	1.19E-04	2.21E-06	4.33E-05	2.76E-05	1.93E-05	1.20E-06	2.72E-05	1.31E-05	9.55E-06
879	259483.3	4085457	1.4E-05	2.39E-04	1.62E-04	1.15E-04	1.40E-05	2.39E-04	1.62E-04	1.15E-04	2.13E-06	4.17E-05	2.66E-05	1.86E-05	1.16E-06	2.62E-05	1.27E-05	9.21E-06
880	259508.3	4085457	1.35E-05	2.30E-04	1.56E-04	1.11E-04	1.35E-05	2.30E-04	1.56E-04	1.11E-04	2.05E-06	4.01E-05	2.56E-05	1.79E-05	1.11E-06	2.52E-05	1.22E-05	8.86E-06
881	259533.3	4085457	1.3E-05	2.22E-04	1.50E-04	1.07E-04	1.30E-05	2.22E-04	1.50E-04	1.07E-04	1.98E-06	3.87E-05	2.47E-05	1.73E-05	1.07E-06	2.43E-05	1.18E-05	8.55E-06
882	259558.3	4085457	1.25E-05	2.13E-04	1.44E-04	1.03E-04	1.25E-05	2.13E-04	1.44E-04	1.03E-04	1.90E-06	3.72E-05	2.37E-05	1.66E-05	1.03E-06	2.34E-05	1.13E-05	8.21E-06
883	259583.3	4085457	1.2E-05	2.04E-04	1.38E-04	9.83E-05	1.20E-05	2.04E-04	1.38E-04	9.83E-05	1.82E-06	3.56E-05	2.27E-05	1.59E-05	9.89E-07	2.24E-05	1.08E-05	7.87E-06
884	259608.3	4085457	1.15E-05	1.96E-04	1.33E-04	9.43E-05	1.15E-05	1.96E-04	1.33E-04	9.43E-05	1.75E-06	3.42E-05	2.18E-05	1.53E-05	9.48E-07	2.15E-05	1.04E-05	7.55E-06
885	259633.3	4085457	1.1E-05	1.88E-04	1.27E-04	9.04E-05	1.10E-05	1.88E-04	1.27E-04	9.04E-05	1.67E-06	3.28E-05	2.09E-05	1.46E-05	9.09E-07	2.06E-05	9.96E-06	7.23E-06
886	259658.3	4085457	1.05E-05	1.80E-04	1.22E-04	8.66E-05	1.05E-05

902	258558.3	4085482	3.77E-05	6.43E-04	4.36E-04	3.10E-04	3.77E-05	6.43E-04	4.36E-04	3.10E-04	5.74E-06	1.12E-04	7.16E-05	5.02E-05	3.11E-06	7.06E-05	3.41E-05	2.48E-05
903	258583.3	4085482	3.74E-05	6.38E-04	4.33E-04	3.07E-04	3.74E-05	6.38E-04	4.33E-04	3.07E-04	5.69E-06	1.11E-04	7.10E-05	4.98E-05	3.09E-06	7.00E-05	3.39E-05	2.46E-05
904	258608.3	4085482	3.71E-05	6.32E-04	4.29E-04	3.05E-04	3.71E-05	6.32E-04	4.29E-04	3.05E-04	5.64E-06	1.10E-04	7.04E-05	4.93E-05	3.06E-06	6.94E-05	3.36E-05	2.44E-05
905	258633.3	4085482	3.65E-05	6.23E-04	4.22E-04	3.00E-04	3.65E-05	6.23E-04	4.22E-04	3.00E-04	5.55E-06	1.09E-04	6.93E-05	4.86E-05	3.02E-06	6.83E-05	3.30E-05	2.40E-05
906	258658.3	4085482	3.6E-05	6.14E-04	4.16E-04	2.96E-04	3.60E-05	6.14E-04	4.16E-04	2.96E-04	5.48E-06	1.07E-04	6.83E-05	4.79E-05	2.97E-06	6.74E-05	3.26E-05	2.37E-05
907	258683.3	4085482	3.56E-05	6.06E-04	4.11E-04	2.92E-04	3.56E-05	6.06E-04	4.11E-04	2.92E-04	5.41E-06	1.06E-04	6.75E-05	4.73E-05	2.94E-06	6.66E-05	3.22E-05	2.34E-05
908	258708.3	4085482	3.51E-05	5.98E-04	4.06E-04	2.88E-04	3.51E-05	5.98E-04	4.06E-04	2.88E-04	5.34E-06	1.04E-04	6.66E-05	4.67E-05	2.90E-06	6.57E-05	3.18E-05	2.31E-05
909	258733.3	4085482	3.46E-05	5.89E-04	4.00E-04	2.84E-04	3.46E-05	5.89E-04	4.00E-04	2.84E-04	5.26E-06	1.03E-04	6.56E-05	4.60E-05	2.85E-06	6.47E-05	3.13E-05	2.27E-05
910	258758.3	4085482	3.4E-05	5.80E-04	3.93E-04	2.79E-04	3.40E-05	5.80E-04	3.93E-04	2.79E-04	5.17E-06	1.01E-04	6.45E-05	4.52E-05	2.81E-06	6.37E-05	3.08E-05	2.24E-05
911	258783.3	4085482	3.34E-05	5.70E-04	3.86E-04	2.75E-04	3.34E-05	5.70E-04	3.86E-04	2.75E-04	5.08E-06	9.95E-05	6.34E-05	4.44E-05	2.76E-06	6.25E-05	3.02E-05	2.20E-05
912	258808.3	4085482	3.28E-05	5.59E-04	3.79E-04	2.69E-04	3.28E-05	5.59E-04	3.79E-04	2.69E-04	4.99E-06	9.76E-05	6.22E-05	4.36E-05	2.71E-06	6.14E-05	2.97E-05	2.16E-05
913	258833.3	4085482	3.21E-05	5.48E-04	3.71E-04	2.64E-04	3.21E-05	5.48E-04	3.71E-04	2.64E-04	4.88E-06	9.57E-05	6.09E-05	4.27E-05	2.65E-06	6.01E-05	2.91E-05	2.11E-05
914	258858.3	4085482	3.14E-05	5.36E-04	3.63E-04	2.58E-04	3.14E-05	5.36E-04	3.63E-04	2.58E-04	4.78E-06	9.35E-05	5.96E-05	4.18E-05	2.59E-06	5.88E-05	2.84E-05	2.07E-05
915	258883.3	4085482	3.07E-05	5.23E-04	3.55E-04	2.52E-04	3.07E-05	5.23E-04	3.55E-04	2.52E-04	4.66E-06	9.13E-05	5.82E-05	4.08E-05	2.53E-06	5.74E-05	2.78E-05	2.02E-05
916	258908.3	4085482	2.99E-05	5.10E-04	3.46E-04	2.46E-04	2.99E-05	5.10E-04	3.46E-04	2.46E-04	4.55E-06	8.90E-05	5.67E-05	3.98E-05	2.47E-06	5.59E-05	2.71E-05	1.97E-05
917	258933.3	4085482	2.91E-05	4.96E-04	3.36E-04	2.39E-04	2.91E-05	4.96E-04	3.36E-04	2.39E-04	4.42E-06	8.66E-05	5.52E-05	3.87E-05	2.40E-06	5.44E-05	2.63E-05	1.91E-05
918	258958.3	4085482	2.83E-05	4.82E-04	3.27E-04	2.32E-04	2.83E-05	4.82E-04	3.27E-04	2.32E-04	4.30E-06	8.41E-05	5.36E-05	3.76E-05	2.33E-06	5.29E-05	2.56E-05	1.86E-05
919	258983.3	4085482	2.74E-05	4.67E-04	3.17E-04	2.25E-04	2.74E-05	4.67E-04	3.17E-04	2.25E-04	4.17E-06	8.16E-05	5.20E-05	3.64E-05	2.26E-06	5.13E-05	2.48E-05	1.80E-05
920	259008.3	4085482	2.65E-05	4.53E-04	3.07E-04	2.18E-04	2.65E-05	4.53E-04	3.07E-04	2.18E-04	4.04E-06	7.91E-05	5.04E-05	3.53E-05	2.19E-06	4.97E-05	2.40E-05	1.75E-05
921	259033.3	4085482	2.57E-05	4.38E-04	2.97E-04	2.11E-04	2.57E-05	4.38E-04	2.97E-04	2.11E-04	3.91E-06	7.65E-05	4.87E-05	3.42E-05	2.12E-06	4.81E-05	2.32E-05	1.69E-05
922	259058.3	4085482	2.48E-05	4.23E-04	2.87E-04	2.04E-04	2.48E-05	4.23E-04	2.87E-04	2.04E-04	3.77E-06	7.39E-05	4.71E-05	3.30E-05	2.05E-06	4.65E-05	2.25E-05	1.63E-05
923	259083.3	4085482	2.4E-05	4.08E-04	2.77E-04	1.97E-04	2.40E-05	4.08E-04	2.77E-04	1.97E-04	3.64E-06	7.13E-05	4.54E-05	3.19E-05	1.98E-06	4.48E-05	2.17E-05	1.57E-05
924	259108.3	4085482	2.31E-05	3.93E-04	2.67E-04	1.90E-04	2.31E-05	3.93E-04	2.67E-04	1.90E-04	3.51E-06	6.87E-05	4.38E-05	3.07E-05	1.91E-06	4.32E-05	2.09E-05	1.52E-05
925	259133.3	4085482	2.22E-05	3.78E-04	2.57E-04	1.82E-04	2.22E-05	3.78E-04	2.57E-04	1.82E-04	3.37E-06	6.61E-05	4.21E-05	2.95E-05	1.83E-06	4.15E-05	2.01E-05	1.46E-05
926	259158.3	4085482	2.13E-05	3.63E-04	2.46E-04	1.75E-04	2.13E-05	3.63E-04	2.46E-04	1.75E-04	3.24E-06	6.34E-05	4.04E-05	2.83E-05	1.76E-06	3.99E-05	1.93E-05	1.40E-05
927	259183.3	4085482	2.04E-05	3.48E-04	2.36E-04	1.68E-04	2.04E-05	3.48E-04	2.36E-04	1.68E-04	3.10E-06	6.07E-05	3.87E-05	2.71E-05	1.68E-06	3.82E-05	1.85E-05	1.34E-05
928	259208.3	4085482	1.95E-05	3.33E-04	2.26E-04	1.60E-04	1.95E-05	3.33E-04	2.26E-04	1.60E-04	2.97E-06	5.81E-05	3.70E-05	2.60E-05	1.61E-06	3.65E-05	1.77E-05	1.28E-05
929	259233.3	4085482	1.87E-05	3.18E-04	2.16E-04	1.53E-04	1.87E-05	3.18E-04	2.16E-04	1.53E-04	2.84E-06	5.56E-05	3.54E-05	2.48E-05	1.54E-06	3.50E-05	1.69E-05	1.23E-05
930	259258.3	4085482	1.79E-05	3.05E-04	2.07E-04	1.47E-04	1.79E-05	3.05E-04	2.07E-04	1.47E-04	2.72E-06	5.33E-05	3.40E-05	2.38E-05	1.48E-06	3.35E-05	1.62E-05	1.18E-05
931	259283.3	4085482	1.72E-05	2.93E-04	1.99E-04	1.41E-04	1.72E-05	2.93E-04	1.99E-04	1.41E-04	2.62E-06	5.13E-05	3.27E-05	2.29E-05	1.42E-06	3.22E-05	1.56E-05	1.13E-05
932	259308.3	4085482	1.66E-05	2.83E-04	1.92E-04	1.36E-04	1.66E-05	2.83E-04	1.92E-04	1.36E-04	2.52E-06	4.94E-05	3.15E-05	2.21E-05	1.37E-06	3.11E-05	1.50E-05	1.09E-05
933	259333.3	4085482	1.61E-05	2.74E-04	1.86E-04	1.32E-04	1.61E-05	2.74E-04	1.86E-04	1.32E-04	2.44E-06	4.79E-05	3.05E-05	2.14E-05	1.33E-06	3.01E-05	1.46E-05	1.06E-05
934	259358.3	4085482	1.56E-05	2.66E-04	1.80E-04	1.28E-04	1.56E-05	2.66E-04	1.80E-04	1.28E-04	2.37E-06	4.65E-05	2.96E-05	2.08E-05	1.29E-06	2.92E-05	1.41E-05	1.03E-05
935	259383.3	4085482	1.52E-05	2.59E-04	1.75E-04	1.25E-04	1.52E-05	2.59E-04	1.75E-04	1.25E-04	2.31E-06	4.52E-05	2.88E-05	2.02E-05	1.25E-06	2.84E-05	1.37E-05	9.98E-06
936	259408.3	4085482	1.48E-05	2.52E-04	1.71E-04	1.21E-04	1.48E-05	2.52E-04	1.71E-04	1.21E-04	2.24E-06	4.39E-05	2.80E-05	1.96E-05	1.22E-06	2.76E-05	1.34E-05	9.70E-06
937	259433.3	4085482	1.43E-05	2.44E-04	1.66E-04	1.18E-04	1.43E-05	2.44E-04	1.66E-04	1.18E-04	2.18E-06	4.27E-05	2.72E-05	1.91E-05	1.18E-06	2.68E-05	1.30E-05	9.42E-06
938	259458.3	4085482	1.39E-05	2.37E-04	1.60E-04	1.14E-04	1.39E-05	2.37E-04	1.60E-04	1.14E-04	2.11E-06	4.14E-05	2.63E-05	1.85E-05	1.15E-06	2.60E-05	1.26E-05	9.13E-06
939	259483.3	4085482	1.34E-05	2.29E-04	1.55E-04	1.10E-04	1.34E-05	2.29E-04	1.55E-04	1.10E-04	2.04E-06	4.00E-05	2.55E-05	1.79E-05	1.11E-06	2.51E-05	1.22E-05	8.83E-06
940	259508.3	4085482	1.3E-05	2.21E-04	1.50E-04	1.06E-04	1.30E-05	2.21E-04	1.50E-04	1.06E-04	1.97E-06	3.86E-05	2.46E-05	1.72E-05	1.07E-06	2.42E-05	1.17E-05	8.51E-06
941	259533.3	4085482	1.25E-05	2.14E-04	1.45E-04	1.03E-04	1.25E-05	2.14E-04	1.45E-04	1.03E-04	1.90E-06	3.73E-05	2.38E-05	1.67E-05	1.03E-06	2.34E-05	1.13E-05	8.23E-06
942	259558.3	4085482	1.2E-05	2.05E-04	1.39E-04	9.89E-05	1.20E-05	2.05E-04	1.39E-04	9.89E-05	1.83E-06	3.59E-05	2.29E-05	1.60E-05	9.95E-07	2.25E-05	1.09E-05	7.92E-06
943	259583.3	4085482	1.16E-05	1.97E-04	1.34E-04	9.50E-05	1.16E-05	1.97E-04	1.34E-04	9.50E-05	1.76E-06	3.45E-05	2.20E-05	1.54E-05	9.56E-07	2.17E-05	1.05E-05	7.61E-06
944	259608.3	4085482	1.11E-05	1.89E-04	1.28E-04	9.13E-05	1.11E-05	1.89E-04	1.28E-04	9.13E-05	1.69E-06	3.31E-05	2.11E-05	1.48E-05	9.17E-07	2.08E-05	1.01E-05	7.30E-06
945	259633.3	4085482	1.07E-05	1.82E-04	1.23E-04	8.76E-05	1.07E-05	1.82E-04	1.23E-04	8.76E-05	1.62E-06	3.18E-05	2.02E-05	1.42E-05	8.81E-07	2.00E-05	9.65E-06	7.01E-06
946	259658.3	4085482	1.02E-05	1.75E-04	1.18E-04	8.41E-05	1.02E-05	1.75E-04	1.18E-04	8.41E-05	1.56E-06	3.05E-05	1.94E-05	1.36E-05	8.46E-07	1.92E-05	9.27E-06	6.73E-06
947	259683.3	4085482	9.82E-06	1.67E-04	1.13E-04	8.06E-05	9.82E-06	1.67E-04	1.13E-04	8.06E-05	1.49E-06	2.92E-05	1.86E-05	1.31E-05	8.11E-07	1.84E-05	8.88E-06	6.45E-06
948	259708.3	4085482	9.44E-06	1.61E-04	1.09E-04	7.75E-05	9.44E-06	1.61E-04	1.09E-04	7.75E-05	1.44E-06	2.81E-05	1.79E-05	1.26E-05	7.79E-07	1.77E-05	8.54E-06	6.20E-06
949	259733.3	4085482	9.09E-06	1.55E-04	1.05E-04	7.47E-05	9.09E-06	1.55E-04	1.05E-04	7.47E-05	1.38E-06	2.71E-05	1.72E-05	1.21E-05	7.51E-07	1.70E-05	8.23E-06	5.98E-06
950	259758.3	4085482	8.77E-06	1.49E-04	1.01E-04	7.20E-05	8.77E-06	1.49E-04	1.01E-04	7.20E-05	1.33E-06	2.61E-05	1.66E-05	1.17E-05	7.24E-07	1.64E-05	7.94E-06	5.76E-06
951	259783.3	4085482	8.47E-06	1.44E-04	9.79E-05	6.96E-05	8.47E-06	1.44E-04	9.79E-05	6.96E-05	1.29E-06	2.52E-05	1.61E-05	1.13E-05	6.99E-07	1.59E-05	7.67E-06	5.57E-06
952	259808.3	4085482	8.2E-06	1.40E-04	9.47E-05	6.73E-05	8.20E-06	1.40E-04	9.47E-05	6.73E-05	1.25E-06	2.44E-05	1.56E-05	1.09E-05	6.77E-07	1.53E-05	7.42E-06	5.39E-06
953	259833.3	4085482	7.94E-06	1.35E-04	9.18E-05	6.53E-05	7.94E-06	1.35E-04	9.18E-05	6.53E-05	1.21E-06	2.37E-05	1.51E-05	1.06E-05	6.56E-07	1.49E-05	7.19E-06	5.22E-06
954	259858.3	4085482	7.73E-06	1.32E-04	8.93E-05	6.35E-05	7.73E-06	1.32E-04	8.93E-05	6.35E-05	1.18E-06	2.30E-05	1.47E-05	1.03E-05	6.38E-07	1.45E-05	6.99E-06	5.08E-06
955	259883.3	4085482	7.53E-06	1.28E-04	8.70E-05	6.18E-05	7.53E-06	1.28E-04	8.70E-05	6.18E-05	1.14E-06	2.24E-05	1.43E-05	1.00E-05	6.22E-07	1.41E-05	6.81E-06	4.95E-06
956	259908.3	4085482	7.34E-06	1.25E-04	8.48E-05	6.03E-05	7.34E-06	1.25E-04	8.48E-05	6.03E-05	1.12E-06	2.18E-05	1.39E-05	9.76E-06	6.06E-07	1.37E-05	6.64E-06	4.82E-06
957	259933.3	4085482	7.16E-06	1.22E-04	8.28E-05	5.88E-05	7.16E-06	1.22E-04	8.28E-05	5.88E-05	1.09E-06	2.13E-05	1.36E-05	9.53E-06	5.92E-07	1.34E-05	6.48E-06	4.71E-06
958	259958.3	4085482	7.01E-06	1.19E-04	8.10E-05	5.75E-05	7.01E-06	1.19E-04	8.10E-05	5.75E-05	1.07E-06	2.09E-05	1.33E-05	9.32E-06	5.79E-07	1.31E-05	6.34E-06	4.61E-06
959	259983.3	4085482	6.86E-06	1.17E-04	7.93E-05	5.64E-05	6.86E-06	1.17E-04	7.93E-05	5.64E-05	1.04E-06	2.04E-05	1.30E-05	9.13E-06	5.67E-07	1.28E-05	6.21E-06	4.51E-06
960	258508.3	4085507	3.61E-05	6.16E-04	4.17E-04	2.97E-04	3.61E-05	6.16E-04	4.17E-04	2.97E-04	5.49E-06	1.08E-04	6.85E-05	4.80E-05	2.98E-06	6.76E-05	3.27E-05	2.37E-05
961	258533.3	4085507	3.59E-05	6.11E-04	4.14E-04	2.95E-04	3.59E-05	6.11E-04	4.14E-04	2.95E-04	5.45E-06	1.07E-04	6.80E-05	4.77E-05	2.96E-06	6.71E-05	3.25E-05	2.36E-05
962	258558.3	4085507	3.56E-05	6.06E-04	4.11E-04	2.92E-04	3.56E-05	6.06E-04	4.11E-04	2.92E-04	5.41E-06	1.06E-04	6.75E-05	4.73E-05	2.94E-06	6.66E-05	3.22E-05	2.34E-05
963	258583.3	4085507	3.53E-05	6.01E-04	4.07E-04	2.90E-04	3.53E-05	6.01E-04	4.07E-04	2.90E-04	5.36E-06	1.05E-04	6.69E-05	4.69E-05	2.91E-06	6.60E-05	3.19E-05	2.32E-05
964	258608.3	4085507	3.47E-05	5.91E-04	4.01E-04	2.85E-04	3.47E-05	5.91E-04	4.01E-04	2.85E-04	5.27E-06	1.03E-04	6.58E-05	4.61E-05	2.86E-06	6.49E-05	3.14E-05	2.28E-05
965	258633.3	4085507	3.43E-05	5.84E-04	3.96E-04	2.81E-04	3.43E-05	5.84E-04	3.96E-04	2.81E-04	5.21E-06	1.02E-04	6.50E-05	4.56E-05	2.83E-06	6.41E-05	3.10E-05	2.25E-05
966	258658.3	4085507	3.38E-05	5.77E-04	3.91E-04	2.78E-04	3.38E-05	5.77E-04	3.91E-04	2.78E-04	5.14E-06	1.01E-04	6.42E-05	4.50E-05	2.79E-06	6.33E-05	3.06E-05	2.22E-05
967	258683.3	4085507	3.34E-05	5.69E-04	3.86E-04	2.74E-04	3.34E-05	5.69E-04	3.86E-04	2.74E-04	5.08E-06	9.94E-05	6.33E-05	4.44E-05	2.76E-06	6.25E-05	3.02E-05	2.19E-05
968	258708.3	4085507	3.29E-05	5.61E-04	3.80E-04	2.70E-04	3.29E-05	5.61E-04	3.80E-04	2.70E-04	5.00E-06	9.80E-05	6.24E-05	4.38E-05	2.72E-06	6.16E-05	2.98E-05	2.16E-05
969	258733.3	4085507	3.24E-05	5.52E-04	3.75E-04	2.66E-04	3.24E-05	5.52E-04	3.75E-04	2.66E-04	4.93E-06	9.65E-05	6.15E-05	4.31E-05	2.68E-06	6.06E-05	2.93E-05	2.13E-05
970	258758.3	4085507	3.19E-05	5.43E-04	3.68E-04	2.62E-04	3.19E-05	5.43E-04	3.68E-04	2.62E-04	4.85E-06	9.49E-05	6.05E-05	4.24E-05	2.63E-06	5.96E-05	2.88E-05	2.09E-05
971	258783.3	4085507	3.13E-05	5.34E-04	3.62E-04	2.57E-04	3.13E-05	5.34E-04	3.62E-04	2.57E-04	4.76E-06	9.32E-05	5.94E-05	4.16E-05	2.58E-06	5.86E-05	2.83E-05	2.06E-05
972	258808.3	4085507	3.07E-05	5.23E-04	3.55E-04	2.52E-04	3.07E-05	5.23E-04	3.55E-04	2.52E-04	4.67E-06	9.14E-05	5.82E-05	4.08E-05	2.53E-06	5.74E-05	2.78E-05	2.02E-05
973	258833.3	4085507	3.01E-05	5.13E-04	3.47E-04	2.47E-04	3.01E-05	5.13E-04	3.47E-04	2.47E-04	4.57E-06	8.95E-05	5.70E-05	4.00E-05	2.48E-06	5.63E-05	2.72E-05	1.98E-05
974	258858.3	4085507	2.94E-05	5.01E-04	3.40E-04	2.41E-04	2.94E-05	5.01E-04	3.40E-04	2.41E-04	4.47E-06	8.75E-05	5.58E-05	3.91E-05	2.43E-06	5.50E-05	2.66E-05	1.93E-05
975	258883.3	4085507	2.87E-05	4.89E-04	3.32E-04	2.36E-04	2.87E-05	4.89E-04	3.32E-04	2.36E-04	4.36E-06	8.54E-05	5.44E-05	3.82E-05	2.37E-06	5.37E-05	2.60E-05	1.89E-05
976	258908.3	4085507	2.8E-05	4.77E-04	3.23E-04	2.30E-04	2.80E-05	4.77E-04	3.23E-04	2.30E-04	4.25E-06	8.33E-05	5.31E-05	3.72E-05	2.31E-06	5.23E-05	2.53E-05	1.84E-05
977	258933.3	4085507	2.72E-05	4.64E-04	3.14E-04	2.24E-04	2.72E-05	4.64E-04	3.14E-04	2.24E-04	4.14E-06	8.10E-05	5.16E-05	3.62E-05	2.25E-06	5.09E-05	2.46E-05	1.79E-05
978	258958.3	4085507	2.64E-05	4.51E-04	3.06E-04	2.17E-04	2.64E-05	4.51E-04	3.06E-04	2.17E-04	4.02E-06	7.87E-05	5.02E-05	3.52E-05	2.18E-06	4.95E-05	2.39E-05	1.74E-05
979	258983.3	4085507	2.56E-05	4.37E-04	2.96E-04	2.11E-04	2.56E-05	4.37E-04	2.96E-04	2.11E-04	3.90E-06	7.64E-05	4.87E-05	3.41E-05	2.12E-06	4.80E-05	2.32E-05	1.69E-05
980	259008.3	4085507	2.48E-05	4.24E-04	2.87E-04	2.04E-04	2.48E-05	4.24E-04	2.87E-04	2.04E-04	3.78E-06	7.40E-05	4.71E-05	3.30E-05	2.05E-06	4.65E-05	2.25E-05	1.63E-05
981	259033.3	4085507	2.41E-05	4.10E-04	2.78E-04	1.98E-04	2.41E-05	4.10E-04	2.78E-04	1.98E-04	3.66E-06	7.16E-05	4.56E-05	3.20E-05	1.99E-06	4.50E-05	2.18E-05	1.58E-05
982	259058.3	4085507	2.33E-05	3.96E-04	2.69E-04	1.91E-04	2.33E-05	3.96E-04	2.69E-04	1.91E-04	3.54E-06	6.92E-05	4.41E-05	3.09E-05	1.92E-06	4.35E-05	2.10E-05	1.53E-05
983	259083.3	4085507	2.25E-05	3.83E-04	2.60E-04	1.84E-04	2.25E-05	3.83E-04	2.60E-04	1.84E-04	3.41E-06	6.69E-05	4.26E-05	2.99E-05	1.85E-06	4.20E-05	2.03E-05	1.48E-05
984	259108.3	4085507	2.17E-05	3.69E-04	2.50E-04	1.78E-04	2.17E-05	3.69E-04	2.50E-04	1.78E-04	3.29E-06	6.45E-05	4.11E-05	2.88E-05	1.79E-06	4.05E-05	1.96E-05	1.42E-05
985	259133.3	4085507	2.08E-05	3.55E-04	2.41E-04	1.71E-04	2.08E-05	3.55E-04	2.41E-04	1.71E-04	3.17E-06	6.20E-05	3.95E-05	2.77E-05	1.72E-06	3.90E-05	1.89E-05	1.37E-05
986	259158.3	4085507	2E-05	3.41E-04	2.31E-04	1.64E-04	2.00E-05	3.41E-04	2.31E-04	1.64E-04	3.04E-06	5.96E-05	3.80E-05	2.66E-05	1.65E-06	3.75E-05	1.81E-05	1.32E-05
987	259183.3	4085507	1.92E-05	3.27E-04	2.22E-04	1.58E-04	1.92E-05	3.27E-04	2.22E-04	1.58E-04	2.92E-06	5.71E-05	3.64E-05	2.55E-05	1.58E-06	3.59E-05	1.74E-05	1.26E-05
988	259208.3	4085507	1.84E-05	3.13E-04	2.12E-04	1.51E-04	1.84E-05	3.13E-04	2.12E-04	1.51E-04	2.80E-06	5.47E-05	3.49E-05	2.45E-05	1.52E-06	3.44E-05	1.66E-05	1.21E-05
989	259233.3	4085507	1.76E-05	3.00E-04	2.04E-04	1.45E-04	1.76E-05	3.00E-04	2.04E-04	1.45E-04	2.68E-06	5.25E-05	3.34E-05	2.34E-05	1.45E-06	3.30E-05	1.59E-05	1.16E-05
990	259258.3	4085507	1.69E-05	2.88E-04	1.95E-04	1.39E-04	1.69E-05	2.88E-04	1.95E-04	1.39E-04	2.57E-06	5.04E-05	3.21E-05	2.25E-05	1.40E-06	3.16E-05	1.53E-05	1.11E-05
991	259283.3	4085507	1.63E-05	2.78E-04	1.88E-04	1.34E-04	1.63E-05	2.78E-04	1.88E-04	1.34E-04	2.48E-06	4.85E-05	3.09E-05	2.17E-05	1.34E-06	3.05E-05	1.47E-05	1.07E-05
992	259308.3	4085507	1.57E-05	2.68E-04	1.82E-04	1.29E-04	1.57E-05	2.68E-04	1.82E-04	1.29E-04	2.39E-06	4.68E-05	2.98E-05	2.09E-05	1.30E-06	2.94E-05	1.42E-05	1.03E-05
993	259333.3	4085507	1.53E-05	2.60E-04	1.76E-04	1.25E-04	1.53E-05	2.60E-04	1.76E-04	1.25E-04	2.32E-06	4.54E-05	2.89E-05	2.03E-05	1.26E-06	2.85E-05	1.38E-05	1.00E-05
994	259358.3	4085507	1.48E-05	2.53E-04	1.71E-04	1.22E-04	1.48E-05	2.53E-04	1.71E-04	1.22E-04	2.26E-06	4.42E-05	2.81E-05	1.97E-05	1.22E-06	2.78E-05	1.34E-05	9.75E-06
995	259383.3	4085507	1.44E-05	2.46E-04	1.67E-04	1.19E-04	1.44E-05	2.46E-04	1.67E-04	1.19E-04	2.20E-06	4.30E-05	2.74E-05	1.92E-05	1.19E-06	2.70E-05	1.31E-05	9.49E-06
996	259408.3	4085507	1.41E-05	2.40E-04	1.63E-04	1.16E-04	1.41E-05	2.40E-04	1.63E-04	1.16E-04	2.14E-06	4.19E-05	2.67E-05	1.87E-05	1.16E-06	2.63E-05	1.27E-05	9.25E-06
997	259433.3	4085507	1.37E-05	2.33E-04	1.58E-04	1.12E-04	1.37E-05	2.33E-04	1.58E-04	1.12E-04	2.08E-06	4.08E-05	2.60E-05	1.82E-05	1.13E-06	2.56E-05	1.24E-05	9.00E-06
998	259458.3	4085507	1.33E-05	2.27E-04	1.54E-04	1.09E-04	1.33E-05	2.27E-04	1.54E-04	1.09E-04	2.02E-06	3.96E-05	2.52E-05	1.77E-05	1.10E-06	2.49E-05	1.20E-05	8.74E-06
999	259483.3	4085507	1.29E-05	2.20E-04	1.49E-04	1.06E-04	1.29E-05	2.20E-04	1.49

1015	259883.3	4085507	7.28E-06	1.24E-04	8.41E-05	5.98E-05	7.28E-06	1.24E-04	8.41E-05	5.98E-05	1.11E-06	2.17E-05	1.38E-05	9.68E-06	6.01E-07	1.36E-05	6.59E-06	4.78E-06
1016	259908.3	4085507	7.09E-06	1.21E-04	8.19E-05	5.82E-05	7.09E-06	1.21E-04	8.19E-05	5.82E-05	1.08E-06	2.11E-05	1.34E-05	9.42E-06	5.85E-07	1.33E-05	6.41E-06	4.66E-06
1017	259933.3	4085507	6.91E-06	1.18E-04	7.99E-05	5.68E-05	6.91E-06	1.18E-04	7.99E-05	5.68E-05	1.05E-06	2.06E-05	1.31E-05	9.19E-06	5.71E-07	1.29E-05	6.26E-06	4.54E-06
1018	259958.3	4085507	6.75E-06	1.15E-04	7.81E-05	5.55E-05	6.75E-06	1.15E-04	7.81E-05	5.55E-05	1.03E-06	2.01E-05	1.28E-05	8.98E-06	5.58E-07	1.26E-05	6.11E-06	4.44E-06
1019	259983.3	4085507	6.61E-06	1.13E-04	7.64E-05	5.43E-05	6.61E-06	1.13E-04	7.64E-05	5.43E-05	1.01E-06	1.97E-05	1.25E-05	8.79E-06	5.46E-07	1.24E-05	5.98E-06	4.35E-06
1020	258508.3	4085532	3.42E-05	5.82E-04	3.95E-04	2.81E-04	3.42E-05	5.82E-04	3.95E-04	2.81E-04	5.19E-06	1.02E-04	6.48E-05	4.54E-05	2.82E-06	6.39E-05	3.09E-05	2.25E-05
1021	258533.3	4085532	3.39E-05	5.78E-04	3.92E-04	2.78E-04	3.39E-05	5.78E-04	3.92E-04	2.78E-04	5.15E-06	1.01E-04	6.43E-05	4.51E-05	2.80E-06	6.34E-05	3.07E-05	2.23E-05
1022	258558.3	4085532	3.36E-05	5.72E-04	3.88E-04	2.76E-04	3.36E-05	5.72E-04	3.88E-04	2.76E-04	5.10E-06	1.00E-04	6.37E-05	4.46E-05	2.77E-06	6.28E-05	3.04E-05	2.21E-05
1023	258583.3	4085532	3.31E-05	5.64E-04	3.83E-04	2.72E-04	3.31E-05	5.64E-04	3.83E-04	2.72E-04	5.03E-06	9.86E-05	6.28E-05	4.40E-05	2.73E-06	6.19E-05	3.00E-05	2.18E-05
1024	258608.3	4085532	3.26E-05	5.56E-04	3.77E-04	2.68E-04	3.26E-05	5.56E-04	3.77E-04	2.68E-04	4.96E-06	9.72E-05	6.19E-05	4.34E-05	2.69E-06	6.11E-05	2.95E-05	2.14E-05
1025	258633.3	4085532	3.22E-05	5.50E-04	3.73E-04	2.65E-04	3.22E-05	5.50E-04	3.73E-04	2.65E-04	4.90E-06	9.60E-05	6.12E-05	4.29E-05	2.66E-06	6.03E-05	2.92E-05	2.12E-05
1026	258658.3	4085532	3.18E-05	5.43E-04	3.68E-04	2.61E-04	3.18E-05	5.43E-04	3.68E-04	2.61E-04	4.84E-06	9.48E-05	6.04E-05	4.23E-05	2.63E-06	5.96E-05	2.88E-05	2.09E-05
1027	258683.3	4085532	3.14E-05	5.35E-04	3.63E-04	2.58E-04	3.14E-05	5.35E-04	3.63E-04	2.58E-04	4.77E-06	9.35E-05	5.96E-05	4.17E-05	2.59E-06	5.87E-05	2.84E-05	2.06E-05
1028	258708.3	4085532	3.09E-05	5.27E-04	3.57E-04	2.54E-04	3.09E-05	5.27E-04	3.57E-04	2.54E-04	4.70E-06	9.21E-05	5.87E-05	4.11E-05	2.55E-06	5.79E-05	2.80E-05	2.03E-05
1029	258733.3	4085532	3.04E-05	5.19E-04	3.52E-04	2.50E-04	3.04E-05	5.19E-04	3.52E-04	2.50E-04	4.63E-06	9.06E-05	5.78E-05	4.05E-05	2.51E-06	5.70E-05	2.75E-05	2.00E-05
1030	258758.3	4085532	2.99E-05	5.10E-04	3.46E-04	2.46E-04	2.99E-05	5.10E-04	3.46E-04	2.46E-04	4.55E-06	8.91E-05	5.68E-05	3.98E-05	2.47E-06	5.60E-05	2.71E-05	1.97E-05
1031	258783.3	4085532	2.94E-05	5.01E-04	3.40E-04	2.41E-04	2.94E-05	5.01E-04	3.40E-04	2.41E-04	4.47E-06	8.75E-05	5.58E-05	3.91E-05	2.43E-06	5.50E-05	2.66E-05	1.93E-05
1032	258808.3	4085532	2.88E-05	4.91E-04	3.33E-04	2.37E-04	2.88E-05	4.91E-04	3.33E-04	2.37E-04	4.38E-06	8.58E-05	5.47E-05	3.83E-05	2.38E-06	5.39E-05	2.61E-05	1.89E-05
1033	258833.3	4085532	2.82E-05	4.81E-04	3.26E-04	2.32E-04	2.82E-05	4.81E-04	3.26E-04	2.32E-04	4.29E-06	8.40E-05	5.35E-05	3.75E-05	2.33E-06	5.28E-05	2.55E-05	1.85E-05
1034	258858.3	4085532	2.76E-05	4.70E-04	3.19E-04	2.27E-04	2.76E-05	4.70E-04	3.19E-04	2.27E-04	4.19E-06	8.21E-05	5.23E-05	3.67E-05	2.28E-06	5.16E-05	2.50E-05	1.81E-05
1035	258883.3	4085532	2.69E-05	4.59E-04	3.11E-04	2.21E-04	2.69E-05	4.59E-04	3.11E-04	2.21E-04	4.09E-06	8.02E-05	5.11E-05	3.58E-05	2.22E-06	5.04E-05	2.44E-05	1.77E-05
1036	258908.3	4085532	2.62E-05	4.47E-04	3.03E-04	2.16E-04	2.62E-05	4.47E-04	3.03E-04	2.16E-04	3.99E-06	7.81E-05	4.98E-05	3.49E-05	2.17E-06	4.91E-05	2.37E-05	1.72E-05
1037	258933.3	4085532	2.55E-05	4.35E-04	2.95E-04	2.10E-04	2.55E-05	4.35E-04	2.95E-04	2.10E-04	3.88E-06	7.60E-05	4.84E-05	3.39E-05	2.11E-06	4.78E-05	2.31E-05	1.68E-05
1038	258958.3	4085532	2.48E-05	4.23E-04	2.87E-04	2.04E-04	2.48E-05	4.23E-04	2.87E-04	2.04E-04	3.77E-06	7.39E-05	4.71E-05	3.30E-05	2.05E-06	4.64E-05	2.24E-05	1.63E-05
1039	258983.3	4085532	2.41E-05	4.10E-04	2.78E-04	1.98E-04	2.41E-05	4.10E-04	2.78E-04	1.98E-04	3.66E-06	7.17E-05	4.57E-05	3.20E-05	1.99E-06	4.50E-05	2.18E-05	1.58E-05
1040	259008.3	4085532	2.33E-05	3.98E-04	2.70E-04	1.92E-04	2.33E-05	3.98E-04	2.70E-04	1.92E-04	3.55E-06	6.95E-05	4.43E-05	3.10E-05	1.93E-06	4.37E-05	2.11E-05	1.53E-05
1041	259033.3	4085532	2.26E-05	3.85E-04	2.61E-04	1.86E-04	2.26E-05	3.85E-04	2.61E-04	1.86E-04	3.43E-06	6.73E-05	4.29E-05	3.00E-05	1.87E-06	4.23E-05	2.04E-05	1.49E-05
1042	259058.3	4085532	2.19E-05	3.73E-04	2.53E-04	1.80E-04	2.19E-05	3.73E-04	2.53E-04	1.80E-04	3.32E-06	6.51E-05	4.15E-05	2.91E-05	1.80E-06	4.09E-05	1.98E-05	1.44E-05
1043	259083.3	4085532	2.11E-05	3.60E-04	2.44E-04	1.73E-04	2.11E-05	3.60E-04	2.44E-04	1.73E-04	3.21E-06	6.29E-05	4.01E-05	2.81E-05	1.74E-06	3.95E-05	1.91E-05	1.39E-05
1044	259108.3	4085532	2.04E-05	3.47E-04	2.35E-04	1.67E-04	2.04E-05	3.47E-04	2.35E-04	1.67E-04	3.10E-06	6.07E-05	3.87E-05	2.71E-05	1.68E-06	3.81E-05	1.84E-05	1.34E-05
1045	259133.3	4085532	1.96E-05	3.35E-04	2.27E-04	1.61E-04	1.96E-05	3.35E-04	2.27E-04	1.61E-04	2.98E-06	5.84E-05	3.72E-05	2.61E-05	1.62E-06	3.67E-05	1.78E-05	1.29E-05
1046	259158.3	4085532	1.89E-05	3.22E-04	2.18E-04	1.55E-04	1.89E-05	3.22E-04	2.18E-04	1.55E-04	2.87E-06	5.62E-05	3.58E-05	2.51E-05	1.56E-06	3.53E-05	1.71E-05	1.24E-05
1047	259183.3	4085532	1.81E-05	3.09E-04	2.09E-04	1.49E-04	1.81E-05	3.09E-04	2.09E-04	1.49E-04	2.75E-06	5.39E-05	3.44E-05	2.41E-05	1.50E-06	3.39E-05	1.64E-05	1.19E-05
1048	259208.3	4085532	1.74E-05	2.96E-04	2.01E-04	1.43E-04	1.74E-05	2.96E-04	2.01E-04	1.43E-04	2.64E-06	5.17E-05	3.29E-05	2.31E-05	1.43E-06	3.25E-05	1.57E-05	1.14E-05
1049	259233.3	4085532	1.67E-05	2.84E-04	1.93E-04	1.37E-04	1.67E-05	2.84E-04	1.93E-04	1.37E-04	2.53E-06	4.96E-05	3.16E-05	2.22E-05	1.38E-06	3.12E-05	1.51E-05	1.10E-05
1050	259258.3	4085532	1.6E-05	2.73E-04	1.85E-04	1.32E-04	1.60E-05	2.73E-04	1.85E-04	1.32E-04	2.44E-06	4.77E-05	3.04E-05	2.13E-05	1.32E-06	3.00E-05	1.45E-05	1.05E-05
1051	259283.3	4085532	1.54E-05	2.63E-04	1.78E-04	1.27E-04	1.54E-05	2.63E-04	1.78E-04	1.27E-04	2.35E-06	4.60E-05	2.93E-05	2.05E-05	1.28E-06	2.89E-05	1.40E-05	1.01E-05
1052	259308.3	4085532	1.49E-05	2.55E-04	1.73E-04	1.23E-04	1.49E-05	2.55E-04	1.73E-04	1.23E-04	2.27E-06	4.45E-05	2.83E-05	1.99E-05	1.23E-06	2.80E-05	1.35E-05	9.82E-06
1053	259333.3	4085532	1.45E-05	2.47E-04	1.68E-04	1.19E-04	1.45E-05	2.47E-04	1.68E-04	1.19E-04	2.20E-06	4.32E-05	2.75E-05	1.93E-05	1.20E-06	2.71E-05	1.31E-05	9.53E-06
1054	259358.3	4085532	1.41E-05	2.41E-04	1.63E-04	1.16E-04	1.41E-05	2.41E-04	1.63E-04	1.16E-04	2.15E-06	4.20E-05	2.68E-05	1.88E-05	1.17E-06	2.64E-05	1.28E-05	9.28E-06
1055	259383.3	4085532	1.38E-05	2.35E-04	1.59E-04	1.13E-04	1.38E-05	2.35E-04	1.59E-04	1.13E-04	2.09E-06	4.10E-05	2.61E-05	1.83E-05	1.14E-06	2.58E-05	1.25E-05	9.05E-06
1056	259408.3	4085532	1.34E-05	2.29E-04	1.55E-04	1.10E-04	1.34E-05	2.29E-04	1.55E-04	1.10E-04	2.04E-06	4.00E-05	2.55E-05	1.79E-05	1.11E-06	2.51E-05	1.22E-05	8.83E-06
1057	259433.3	4085532	1.31E-05	2.23E-04	1.51E-04	1.07E-04	1.31E-05	2.23E-04	1.51E-04	1.07E-04	1.99E-06	3.90E-05	2.48E-05	1.74E-05	1.08E-06	2.45E-05	1.18E-05	8.60E-06
1058	259458.3	4085532	1.27E-05	2.17E-04	1.47E-04	1.05E-04	1.27E-05	2.17E-04	1.47E-04	1.05E-04	1.94E-06	3.79E-05	2.42E-05	1.69E-05	1.05E-06	2.38E-05	1.15E-05	8.37E-06
1059	259483.3	4085532	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.24E-05	2.11E-04	1.43E-04	1.02E-04	1.88E-06	3.68E-05	2.35E-05	1.64E-05	1.02E-06	2.31E-05	1.12E-05	8.13E-06
1060	259508.3	4085532	1.2E-05	2.04E-04	1.39E-04	9.85E-05	1.20E-05	2.04E-04	1.39E-04	9.85E-05	1.82E-06	3.57E-05	2.27E-05	1.59E-05	9.90E-07	2.24E-05	1.08E-05	7.88E-06
1061	259533.3	4085532	1.16E-05	1.98E-04	1.34E-04	9.52E-05	1.16E-05	1.98E-04	1.34E-04	9.52E-05	1.76E-06	3.45E-05	2.20E-05	1.54E-05	9.57E-07	2.17E-05	1.05E-05	7.62E-06
1062	259558.3	4085532	1.12E-05	1.92E-04	1.30E-04	9.23E-05	1.12E-05	1.92E-04	1.30E-04	9.23E-05	1.71E-06	3.35E-05	2.13E-05	1.49E-05	9.28E-07	2.10E-05	1.02E-05	7.39E-06
1063	259583.3	4085532	1.08E-05	1.85E-04	1.25E-04	8.90E-05	1.08E-05	1.85E-04	1.25E-04	8.90E-05	1.65E-06	3.23E-05	2.06E-05	1.44E-05	8.95E-07	2.03E-05	9.81E-06	7.12E-06
1064	259608.3	4085532	1.04E-05	1.78E-04	1.21E-04	8.57E-05	1.04E-05	1.78E-04	1.21E-04	8.57E-05	1.59E-06	3.11E-05	1.98E-05	1.39E-05	8.62E-07	1.95E-05	9.44E-06	6.86E-06
1065	259633.3	4085532	1E-05	1.71E-04	1.16E-04	8.25E-05	1.00E-05	1.71E-04	1.16E-04	8.25E-05	1.53E-06	2.99E-05	1.91E-05	1.34E-05	8.29E-07	1.88E-05	9.09E-06	6.60E-06
1066	259658.3	4085532	9.66E-06	1.65E-04	1.12E-04	7.94E-05	9.66E-06	1.65E-04	1.12E-04	7.94E-05	1.47E-06	2.88E-05	1.83E-05	1.29E-05	7.98E-07	1.81E-05	8.75E-06	6.35E-06
1067	259683.3	4085532	9.29E-06	1.58E-04	1.07E-04	7.63E-05	9.29E-06	1.58E-04	1.07E-04	7.63E-05	1.41E-06	2.77E-05	1.76E-05	1.24E-05	7.67E-07	1.74E-05	8.41E-06	6.11E-06
1068	259708.3	4085532	8.93E-06	1.52E-04	1.03E-04	7.33E-05	8.93E-06	1.52E-04	1.03E-04	7.33E-05	1.36E-06	2.66E-05	1.69E-05	1.19E-05	7.37E-07	1.67E-05	8.08E-06	5.87E-06
1069	259733.3	4085532	8.59E-06	1.47E-04	9.93E-05	7.06E-05	8.59E-06	1.47E-04	9.93E-05	7.06E-05	1.31E-06	2.56E-05	1.63E-05	1.14E-05	7.10E-07	1.61E-05	7.78E-06	5.65E-06
1070	259758.3	4085532	8.29E-06	1.41E-04	9.58E-05	6.81E-05	8.29E-06	1.41E-04	9.58E-05	6.81E-05	1.26E-06	2.47E-05	1.57E-05	1.10E-05	6.84E-07	1.55E-05	7.50E-06	5.45E-06
1071	259783.3	4085532	8E-06	1.36E-04	9.24E-05	6.57E-05	8.00E-06	1.36E-04	9.24E-05	6.57E-05	1.22E-06	2.38E-05	1.52E-05	1.06E-05	6.60E-07	1.50E-05	7.24E-06	5.26E-06
1072	259808.3	4085532	7.73E-06	1.32E-04	8.93E-05	6.35E-05	7.73E-06	1.32E-04	8.93E-05	6.35E-05	1.18E-06	2.30E-05	1.47E-05	1.03E-05	6.38E-07	1.45E-05	6.99E-06	5.08E-06
1073	259833.3	4085532	7.48E-06	1.28E-04	8.64E-05	6.14E-05	7.48E-06	1.28E-04	8.64E-05	6.14E-05	1.14E-06	2.23E-05	1.42E-05	9.95E-06	6.18E-07	1.40E-05	6.77E-06	4.92E-06
1074	259858.3	4085532	7.26E-06	1.24E-04	8.39E-05	5.97E-05	7.26E-06	1.24E-04	8.39E-05	5.97E-05	1.10E-06	2.16E-05	1.38E-05	9.66E-06	6.00E-07	1.36E-05	6.57E-06	4.77E-06
1075	259883.3	4085532	7.06E-06	1.20E-04	8.16E-05	5.80E-05	7.06E-06	1.20E-04	8.16E-05	5.80E-05	1.07E-06	2.10E-05	1.34E-05	9.39E-06	5.83E-07	1.32E-05	6.39E-06	4.64E-06
1076	259908.3	4085532	6.86E-06	1.17E-04	7.93E-05	5.64E-05	6.86E-06	1.17E-04	7.93E-05	5.64E-05	1.04E-06	2.04E-05	1.30E-05	9.13E-06	5.67E-07	1.28E-05	6.21E-06	4.51E-06
1077	259933.3	4085532	6.69E-06	1.14E-04	7.73E-05	5.49E-05	6.69E-06	1.14E-04	7.73E-05	5.49E-05	1.02E-06	1.99E-05	1.27E-05	8.90E-06	5.52E-07	1.25E-05	6.05E-06	4.40E-06
1078	259958.3	4085532	6.53E-06	1.11E-04	7.55E-05	5.36E-05	6.53E-06	1.11E-04	7.55E-05	5.36E-05	9.93E-07	1.94E-05	1.24E-05	8.68E-06	5.39E-07	1.22E-05	5.91E-06	4.29E-06
1079	259983.3	4085532	6.37E-06	1.09E-04	7.37E-05	5.24E-05	6.37E-06	1.09E-04	7.37E-05	5.24E-05	9.69E-07	1.90E-05	1.21E-05	8.48E-06	5.26E-07	1.19E-05	5.77E-06	4.19E-06
1080	258508.3	4085557	3.23E-05	5.51E-04	3.74E-04	2.66E-04	3.23E-05	5.51E-04	3.74E-04	2.66E-04	4.92E-06	9.63E-05	6.13E-05	4.30E-05	2.67E-06	6.05E-05	2.93E-05	2.13E-05
1081	258533.3	4085557	3.2E-05	5.46E-04	3.70E-04	2.63E-04	3.20E-05	5.46E-04	3.70E-04	2.63E-04	4.87E-06	9.54E-05	6.08E-05	4.26E-05	2.65E-06	6.00E-05	2.90E-05	2.11E-05
1082	258558.3	4085557	3.17E-05	5.41E-04	3.67E-04	2.61E-04	3.17E-05	5.41E-04	3.67E-04	2.61E-04	4.82E-06	9.44E-05	6.02E-05	4.22E-05	2.62E-06	5.94E-05	2.87E-05	2.09E-05
1083	258583.3	4085557	3.11E-05	5.31E-04	3.60E-04	2.56E-04	3.11E-05	5.31E-04	3.60E-04	2.56E-04	4.74E-06	9.28E-05	5.91E-05	4.14E-05	2.57E-06	5.83E-05	2.82E-05	2.05E-05
1084	258608.3	4085557	3.08E-05	5.25E-04	3.56E-04	2.53E-04	3.08E-05	5.25E-04	3.56E-04	2.53E-04	4.68E-06	9.17E-05	5.84E-05	4.09E-05	2.54E-06	5.76E-05	2.79E-05	2.02E-05
1085	258633.3	4085557	3.04E-05	5.18E-04	3.51E-04	2.50E-04	3.04E-05	5.18E-04	3.51E-04	2.50E-04	4.62E-06	9.05E-05	5.77E-05	4.04E-05	2.51E-06	5.69E-05	2.75E-05	2.00E-05
1086	258658.3	4085557	3E-05	5.11E-04	3.47E-04	2.46E-04	3.00E-05	5.11E-04	3.47E-04	2.46E-04	4.56E-06	8.93E-05	5.69E-05	3.99E-05	2.48E-06	5.61E-05	2.71E-05	1.97E-05
1087	258683.3	4085557	2.96E-05	5.04E-04	3.42E-04	2.43E-04	2.96E-05	5.04E-04	3.42E-04	2.43E-04	4.50E-06	8.81E-05	5.61E-05	3.93E-05	2.44E-06	5.53E-05	2.68E-05	1.94E-05
1088	258708.3	4085557	2.91E-05	4.97E-04	3.37E-04	2.39E-04	2.91E-05	4.97E-04	3.37E-04	2.39E-04	4.43E-06	8.67E-05	5.53E-05	3.87E-05	2.41E-06	5.45E-05	2.64E-05	1.91E-05
1089	258733.3	4085557	2.87E-05	4.89E-04	3.31E-04	2.35E-04	2.87E-05	4.89E-04	3.31E-04	2.35E-04	4.36E-06	8.53E-05	5.44E-05	3.81E-05	2.37E-06	5.36E-05	2.59E-05	1.88E-05
1090	258758.3	4085557	2.82E-05	4.80E-04	3.26E-04	2.31E-04	2.82E-05	4.80E-04	3.26E-04	2.31E-04	4.28E-06	8.39E-05	5.34E-05	3.75E-05	2.33E-06	5.27E-05	2.55E-05	1.85E-05
1091	258783.3	4085557	2.77E-05	4.71E-04	3.20E-04	2.27E-04	2.77E-05	4.71E-04	3.20E-04	2.27E-04	4.21E-06	8.23E-05	5.25E-05	3.68E-05	2.28E-06	5.18E-05	2.50E-05	1.82E-05
1092	258808.3	4085557	2.71E-05	4.62E-04	3.13E-04	2.23E-04	2.71E-05	4.62E-04	3.13E-04	2.23E-04	4.12E-06	8.07E-05	5.14E-05	3.61E-05	2.24E-06	5.07E-05	2.45E-05	1.78E-05
1093	258833.3	4085557	2.65E-05	4.53E-04	3.07E-04	2.18E-04	2.65E-05	4.53E-04	3.07E-04	2.18E-04	4.04E-06	7.90E-05	5.04E-05	3.53E-05	2.19E-06	4.97E-05	2.40E-05	1.74E-05
1094	258858.3	4085557	2.59E-05	4.42E-04	3.00E-04	2.13E-04	2.59E-05	4.42E-04	3.00E-04	2.13E-04	3.95E-06	7.73E-05	4.92E-05	3.45E-05	2.14E-06	4.86E-05	2.35E-05	1.71E-05
1095	258883.3	4085557	2.53E-05	4.32E-04	2.93E-04	2.08E-04	2.53E-05	4.32E-04	2.93E-04	2.08E-04	3.85E-06	7.54E-05	4.80E-05	3.37E-05	2.09E-06	4.74E-05	2.29E-05	1.66E-05
1096	258908.3	4085557	2.47E-05	4.21E-04	2.85E-04	2.03E-04	2.47E-05	4.21E-04	2.85E-04	2.03E-04	3.75E-06	7.35E-05	4.68E-05	3.28E-05	2.04E-06	4.62E-05	2.23E-05	1.62E-05
1097	258933.3	4085557	2.4E-05	4.09E-04	2.78E-04	1.97E-04	2.40E-05	4.09E-04	2.78E-04	1.97E-04	3.65E-06	7.15E-05	4.56E-05	3.19E-05	1.98E-06	4.49E-05	2.17E-05	1.58E-05
1098	258958.3	4085557	2.33E-05	3.98E-04	2.70E-04	1.92E-04	2.33E-05	3.98E-04	2.70E-04	1.92E-04	3.55E-06	6.95E-05	4.43E-05	3.10E-05	1.93E-06	4.37E-05	2.11E-05	1.53E-05
1099	258983.3	4085557	2.26E-05	3.86E-04	2.62E-04	1.86E-04	2.26E-05	3.86E-04	2.62E-04	1.86E-04	3.44E-06	6.74E-05	4.30E-05	3.01E-05	1.87E-06	4.24E-05	2.05E-05	1.49E-05
1100	259008.3	4085557	2.2E-05	3.74E-04	2.54E-04	1.80E-04	2.20E-05	3.74E-04	2.54E-04	1.80E-04	3.34E-06	6.54E-05	4.17E-05	2.92E-05	1.81E-06	4.11E-05	1.99E-05	1.44E-05
1101	259033.3	4085557	2.13E-05	3.63E-04	2.46E-04	1.75E-04	2.13E-05	3.63E-04	2.46E-04	1.75E-04	3.24E-06	6.34E-05	4.04E-05	2.83E-05	1.76E-06	3.98E-05	1.93E-05	1.40E-05
1102	259058.3	4085557	2.06E-05	3.51E-04	2.38E-04	1.69E-04	2.06E-05	3.51E-04	2.38E-04	1.69E-04	3.13E-06	6.13E-05	3.91E-05	2.74E-05	1.70E-06	3.85E-05	1.86E-05	1.35E-05
1103	259083.3	4085557	1.99E-05	3.39E-04	2.30E-04	1.64E-04	1.99E-05	3.39E-04	2.30E-04	1.64E-04	3.03E-06	5.93E-05	3.78E-05	2.65E-05	1.64E-06	3.73E-05	1.80E-05	1.31E-05
1104	259108.3	4085557	1.92E-05	3.28E-04	2.22E-04	1.58E-04	1.92E-05	3.28E-04	2.22E-04	1.58E-04	2.92E-06	5.72E-05	3.65E-05	2.56E-05	1.59E-06	3.60E-05	1.74E-05	1.26E-05
1105	259133.3	4085557	1.85E-05	3.16E-04	2.14E-04	1.52E-04	1.85E-05	3.16E-04	2.14E-04	1.52E-04	2.82E-06	5.52E-05	3.51E-05	2.46E-05	1.53E-06	3.47E-05	1.68E-05	1.22E-05
1106	259158.3	4085557	1.78E-05	3.04E-04	2.06E-04	1.46E-04	1.78E-05	3.04E-04	2.06E-04	1.46E-04	2.71E-06	5.31E-05	3.38E-05	2.37E-05	1.47E-06	3.34E-05	1.61E-05	1.17E-05
1107	259183.3	4085557	1.71E-05	2.92E-04	1.98E-04	1.41E-04	1.71E-05	2.92E-04	1.98E-04	1.41E-04	2.60E-06	5.10E-05	3.25E-05	2.28E-05	1.41E-06	3.20E-05	1.55E-05	1.13E-05
1108	259208.3	4085557	1.64E-05	2.80E-04	1.90E-04	1.35E-04	1.64E-05	2.80E-04	1.90E-04	1.35E-04	2.50E-06	4.90E-05	3.12E-05	2.19E-05	1.36E-06	3.08E-05	1.49E-05	1.08E-05
1109	259233.3	4085557	1.58E-05	2.69E-04	1.83E-04	1.30E-04	1.58E-05	2.69E-04	1.83E-04	1.30E-04	2.40E-06	4.70E-05	3.00E-05	2.10E-05	1.30E-06	2.96E-05	1.43E-05	1.04E-05
1110	259258.3	4085557	1.52E-05	2.59E-04	1.76E-04	1.25E-04	1.52E-05	2.59E-04	1.76E-04	1.25E-04	2.31E-06	4.53E-05	2.88E-05	2.02E-05	1.26E-06	2.85E-05	1.38E-05	9.99E-06
1111	259283.3	4085557	1.47E-05	2.50E-04	1.70E-04	1.21E-04	1.47E-05	2.50E-04	1.70E-04	1.21E-04	2.23E-06	4.37E-05	2.78E-05	1.95E-05	1.21E-06	2.75E-05	1

1128	259708.3	4085557	8.7E-06	1.48E-04	1.01E-04	7.14E-05	8.70E-06	1.48E-04	1.01E-04	7.14E-05	1.32E-06	2.59E-05	1.65E-05	1.16E-05	7.18E-07	1.63E-05	7.87E-06	5.72E-06
1129	259733.3	4085557	8.38E-06	1.43E-04	9.68E-05	6.88E-05	8.38E-06	1.43E-04	9.68E-05	6.88E-05	1.27E-06	2.49E-05	1.59E-05	1.11E-05	6.92E-07	1.57E-05	7.58E-06	5.51E-06
1130	259758.3	4085557	8.08E-06	1.38E-04	9.33E-05	6.63E-05	8.08E-06	1.38E-04	9.33E-05	6.63E-05	1.23E-06	2.40E-05	1.53E-05	1.07E-05	6.67E-07	1.51E-05	7.31E-06	5.31E-06
1131	259783.3	4085557	7.79E-06	1.33E-04	9.01E-05	6.40E-05	7.79E-06	1.33E-04	9.01E-05	6.40E-05	1.19E-06	2.32E-05	1.48E-05	1.04E-05	6.44E-07	1.46E-05	7.05E-06	5.12E-06
1132	259808.3	4085557	7.53E-06	1.28E-04	8.70E-05	6.18E-05	7.53E-06	1.28E-04	8.70E-05	6.18E-05	1.14E-06	2.24E-05	1.43E-05	1.00E-05	6.22E-07	1.41E-05	6.81E-06	4.95E-06
1133	259833.3	4085557	7.28E-06	1.24E-04	8.42E-05	5.98E-05	7.28E-06	1.24E-04	8.42E-05	5.98E-05	1.11E-06	2.17E-05	1.38E-05	9.69E-06	6.01E-07	1.36E-05	6.59E-06	4.79E-06
1134	259858.3	4085557	7.07E-06	1.20E-04	8.17E-05	5.80E-05	7.07E-06	1.20E-04	8.17E-05	5.80E-05	1.07E-06	2.10E-05	1.34E-05	9.40E-06	5.84E-07	1.32E-05	6.39E-06	4.64E-06
1135	259883.3	4085557	6.86E-06	1.17E-04	7.93E-05	5.64E-05	6.86E-06	1.17E-04	7.93E-05	5.64E-05	1.04E-06	2.04E-05	1.30E-05	9.12E-06	5.67E-07	1.28E-05	6.21E-06	4.51E-06
1136	259908.3	4085557	6.67E-06	1.14E-04	7.71E-05	5.48E-05	6.67E-06	1.14E-04	7.71E-05	5.48E-05	1.01E-06	1.99E-05	1.26E-05	8.87E-06	5.51E-07	1.25E-05	6.03E-06	4.38E-06
1137	259933.3	4085557	6.49E-06	1.11E-04	7.50E-05	5.33E-05	6.49E-06	1.11E-04	7.50E-05	5.33E-05	9.87E-07	1.93E-05	1.23E-05	8.63E-06	5.36E-07	1.21E-05	5.87E-06	4.27E-06
1138	259958.3	4085557	6.33E-06	1.08E-04	7.31E-05	5.20E-05	6.33E-06	1.08E-04	7.31E-05	5.20E-05	9.62E-07	1.88E-05	1.20E-05	8.42E-06	5.23E-07	1.18E-05	5.73E-06	4.16E-06
1139	259983.3	4085557	6.18E-06	1.05E-04	7.14E-05	5.08E-05	6.18E-06	1.05E-04	7.14E-05	5.08E-05	9.40E-07	1.84E-05	1.17E-05	8.22E-06	5.10E-07	1.16E-05	5.59E-06	4.06E-06
1140	258508.3	4085582	3.06E-05	5.22E-04	3.54E-04	2.52E-04	3.06E-05	5.22E-04	3.54E-04	2.52E-04	4.66E-06	9.12E-05	5.81E-05	4.07E-05	2.53E-06	5.73E-05	2.77E-05	2.01E-05
1141	258533.3	4085582	3.03E-05	5.17E-04	3.50E-04	2.49E-04	3.03E-05	5.17E-04	3.50E-04	2.49E-04	4.61E-06	9.03E-05	5.75E-05	4.03E-05	2.50E-06	5.67E-05	2.74E-05	1.99E-05
1142	258558.3	4085582	3E-05	5.11E-04	3.47E-04	2.46E-04	3.00E-05	5.11E-04	3.47E-04	2.46E-04	4.56E-06	8.93E-05	5.69E-05	3.99E-05	2.48E-06	5.61E-05	2.72E-05	1.97E-05
1143	258583.3	4085582	2.94E-05	5.02E-04	3.40E-04	2.42E-04	2.94E-05	5.02E-04	3.40E-04	2.42E-04	4.48E-06	8.77E-05	5.59E-05	3.92E-05	2.43E-06	5.51E-05	2.66E-05	1.94E-05
1144	258608.3	4085582	2.91E-05	4.96E-04	3.36E-04	2.39E-04	2.91E-05	4.96E-04	3.36E-04	2.39E-04	4.42E-06	8.66E-05	5.52E-05	3.87E-05	2.40E-06	5.44E-05	2.63E-05	1.91E-05
1145	258633.3	4085582	2.87E-05	4.90E-04	3.32E-04	2.36E-04	2.87E-05	4.90E-04	3.32E-04	2.36E-04	4.37E-06	8.55E-05	5.45E-05	3.82E-05	2.37E-06	5.37E-05	2.60E-05	1.89E-05
1146	258658.3	4085582	2.83E-05	4.83E-04	3.27E-04	2.33E-04	2.83E-05	4.83E-04	3.27E-04	2.33E-04	4.31E-06	8.43E-05	5.37E-05	3.77E-05	2.34E-06	5.30E-05	2.56E-05	1.86E-05
1147	258683.3	4085582	2.79E-05	4.76E-04	3.23E-04	2.29E-04	2.79E-05	4.76E-04	3.23E-04	2.29E-04	4.25E-06	8.31E-05	5.30E-05	3.71E-05	2.31E-06	5.22E-05	2.53E-05	1.84E-05
1148	258708.3	4085582	2.75E-05	4.69E-04	3.18E-04	2.26E-04	2.75E-05	4.69E-04	3.18E-04	2.26E-04	4.18E-06	8.19E-05	5.22E-05	3.66E-05	2.27E-06	5.14E-05	2.49E-05	1.81E-05
1149	258733.3	4085582	2.7E-05	4.61E-04	3.13E-04	2.22E-04	2.70E-05	4.61E-04	3.13E-04	2.22E-04	4.11E-06	8.05E-05	5.13E-05	3.60E-05	2.23E-06	5.06E-05	2.45E-05	1.78E-05
1150	258758.3	4085582	2.66E-05	4.53E-04	3.07E-04	2.18E-04	2.66E-05	4.53E-04	3.07E-04	2.18E-04	4.04E-06	7.91E-05	5.04E-05	3.53E-05	2.19E-06	4.97E-05	2.41E-05	1.75E-05
1151	258783.3	4085582	2.61E-05	4.45E-04	3.01E-04	2.14E-04	2.61E-05	4.45E-04	3.01E-04	2.14E-04	3.97E-06	7.77E-05	4.95E-05	3.47E-05	2.15E-06	4.88E-05	2.36E-05	1.71E-05
1152	258808.3	4085582	2.56E-05	4.36E-04	2.96E-04	2.10E-04	2.56E-05	4.36E-04	2.96E-04	2.10E-04	3.89E-06	7.61E-05	4.85E-05	3.40E-05	2.11E-06	4.79E-05	2.31E-05	1.68E-05
1153	258833.3	4085582	2.5E-05	4.27E-04	2.89E-04	2.06E-04	2.50E-05	4.27E-04	2.89E-04	2.06E-04	3.81E-06	7.45E-05	4.75E-05	3.33E-05	2.07E-06	4.68E-05	2.27E-05	1.65E-05
1154	258858.3	4085582	2.45E-05	4.17E-04	2.83E-04	2.01E-04	2.45E-05	4.17E-04	2.83E-04	2.01E-04	3.72E-06	7.28E-05	4.64E-05	3.25E-05	2.02E-06	4.58E-05	2.21E-05	1.61E-05
1155	258883.3	4085582	2.39E-05	4.07E-04	2.76E-04	1.96E-04	2.39E-05	4.07E-04	2.76E-04	1.96E-04	3.63E-06	7.11E-05	4.53E-05	3.18E-05	1.97E-06	4.47E-05	2.16E-05	1.57E-05
1156	258908.3	4085582	2.33E-05	3.97E-04	2.69E-04	1.91E-04	2.33E-05	3.97E-04	2.69E-04	1.91E-04	3.54E-06	6.93E-05	4.41E-05	3.09E-05	1.92E-06	4.35E-05	2.11E-05	1.53E-05
1157	258933.3	4085582	2.26E-05	3.86E-04	2.62E-04	1.86E-04	2.26E-05	3.86E-04	2.62E-04	1.86E-04	3.44E-06	6.74E-05	4.30E-05	3.01E-05	1.87E-06	4.24E-05	2.05E-05	1.49E-05
1158	258958.3	4085582	2.2E-05	3.75E-04	2.54E-04	1.81E-04	2.20E-05	3.75E-04	2.54E-04	1.81E-04	3.35E-06	6.55E-05	4.18E-05	2.93E-05	1.82E-06	4.12E-05	1.99E-05	1.45E-05
1159	258983.3	4085582	2.14E-05	3.64E-04	2.47E-04	1.76E-04	2.14E-05	3.64E-04	2.47E-04	1.76E-04	3.25E-06	6.36E-05	4.05E-05	2.84E-05	1.76E-06	4.00E-05	1.93E-05	1.40E-05
1160	259008.3	4085582	2.07E-05	3.53E-04	2.40E-04	1.70E-04	2.07E-05	3.53E-04	2.40E-04	1.70E-04	3.15E-06	6.17E-05	3.93E-05	2.76E-05	1.71E-06	3.88E-05	1.88E-05	1.36E-05
1161	259033.3	4085582	2.01E-05	3.43E-04	2.32E-04	1.65E-04	2.01E-05	3.43E-04	2.32E-04	1.65E-04	3.06E-06	5.98E-05	3.81E-05	2.67E-05	1.66E-06	3.76E-05	1.82E-05	1.32E-05
1162	259058.3	4085582	1.95E-05	3.32E-04	2.25E-04	1.60E-04	1.95E-05	3.32E-04	2.25E-04	1.60E-04	2.96E-06	5.79E-05	3.69E-05	2.59E-05	1.61E-06	3.64E-05	1.76E-05	1.28E-05
1163	259083.3	4085582	1.88E-05	3.21E-04	2.18E-04	1.55E-04	1.88E-05	3.21E-04	2.18E-04	1.55E-04	2.86E-06	5.60E-05	3.57E-05	2.50E-05	1.55E-06	3.52E-05	1.70E-05	1.24E-05
1164	259108.3	4085582	1.82E-05	3.10E-04	2.10E-04	1.49E-04	1.82E-05	3.10E-04	2.10E-04	1.49E-04	2.76E-06	5.41E-05	3.45E-05	2.42E-05	1.50E-06	3.40E-05	1.65E-05	1.20E-05
1165	259133.3	4085582	1.75E-05	2.99E-04	2.03E-04	1.44E-04	1.75E-05	2.99E-04	2.03E-04	1.44E-04	2.67E-06	5.22E-05	3.33E-05	2.33E-05	1.45E-06	3.28E-05	1.59E-05	1.15E-05
1166	259158.3	4085582	1.69E-05	2.88E-04	1.95E-04	1.39E-04	1.69E-05	2.88E-04	1.95E-04	1.39E-04	2.57E-06	5.03E-05	3.20E-05	2.25E-05	1.39E-06	3.16E-05	1.53E-05	1.11E-05
1167	259183.3	4085582	1.62E-05	2.77E-04	1.88E-04	1.33E-04	1.62E-05	2.77E-04	1.88E-04	1.33E-04	2.47E-06	4.83E-05	3.08E-05	2.16E-05	1.34E-06	3.04E-05	1.47E-05	1.07E-05
1168	259208.3	4085582	1.56E-05	2.66E-04	1.80E-04	1.28E-04	1.56E-05	2.66E-04	1.80E-04	1.28E-04	2.37E-06	4.65E-05	2.96E-05	2.08E-05	1.29E-06	2.92E-05	1.41E-05	1.03E-05
1169	259233.3	4085582	1.5E-05	2.56E-04	1.73E-04	1.23E-04	1.50E-05	2.56E-04	1.73E-04	1.23E-04	2.28E-06	4.47E-05	2.85E-05	2.00E-05	1.24E-06	2.81E-05	1.36E-05	9.87E-06
1170	259258.3	4085582	1.45E-05	2.47E-04	1.67E-04	1.19E-04	1.45E-05	2.47E-04	1.67E-04	1.19E-04	2.20E-06	4.31E-05	2.74E-05	1.92E-05	1.19E-06	2.71E-05	1.31E-05	9.51E-06
1171	259283.3	4085582	1.4E-05	2.38E-04	1.62E-04	1.15E-04	1.40E-05	2.38E-04	1.62E-04	1.15E-04	2.12E-06	4.16E-05	2.65E-05	1.86E-05	1.15E-06	2.62E-05	1.26E-05	9.19E-06
1172	259308.3	4085582	1.35E-05	2.31E-04	1.57E-04	1.11E-04	1.35E-05	2.31E-04	1.57E-04	1.11E-04	2.06E-06	4.03E-05	2.57E-05	1.80E-05	1.12E-06	2.54E-05	1.23E-05	8.91E-06
1173	259333.3	4085582	1.32E-05	2.25E-04	1.52E-04	1.08E-04	1.32E-05	2.25E-04	1.52E-04	1.08E-04	2.00E-06	3.92E-05	2.50E-05	1.75E-05	1.09E-06	2.47E-05	1.19E-05	8.66E-06
1174	259358.3	4085582	1.29E-05	2.19E-04	1.49E-04	1.06E-04	1.29E-05	2.19E-04	1.49E-04	1.06E-04	1.95E-06	3.83E-05	2.44E-05	1.71E-05	1.06E-06	2.41E-05	1.16E-05	8.45E-06
1175	259383.3	4085582	1.26E-05	2.14E-04	1.45E-04	1.03E-04	1.26E-05	2.14E-04	1.45E-04	1.03E-04	1.91E-06	3.74E-05	2.38E-05	1.67E-05	1.04E-06	2.35E-05	1.14E-05	8.26E-06
1176	259408.3	4085582	1.23E-05	2.09E-04	1.42E-04	1.01E-04	1.23E-05	2.09E-04	1.42E-04	1.01E-04	1.87E-06	3.66E-05	2.33E-05	1.63E-05	1.01E-06	2.30E-05	1.11E-05	8.08E-06
1177	259433.3	4085582	1.2E-05	2.05E-04	1.39E-04	9.86E-05	1.20E-05	2.05E-04	1.39E-04	9.86E-05	1.83E-06	3.58E-05	2.28E-05	1.60E-05	9.92E-07	2.25E-05	1.09E-05	7.89E-06
1178	259458.3	4085582	1.17E-05	2.00E-04	1.36E-04	9.63E-05	1.17E-05	2.00E-04	1.36E-04	9.63E-05	1.78E-06	3.49E-05	2.22E-05	1.56E-05	9.68E-07	2.19E-05	1.06E-05	7.71E-06
1179	259483.3	4085582	1.14E-05	1.95E-04	1.32E-04	9.39E-05	1.14E-05	1.95E-04	1.32E-04	9.39E-05	1.74E-06	3.40E-05	2.17E-05	1.52E-05	9.44E-07	2.14E-05	1.03E-05	7.51E-06
1180	259508.3	4085582	1.11E-05	1.90E-04	1.29E-04	9.14E-05	1.11E-05	1.90E-04	1.29E-04	9.14E-05	1.69E-06	3.31E-05	2.11E-05	1.48E-05	9.18E-07	2.08E-05	1.01E-05	7.31E-06
1181	259533.3	4085582	1.08E-05	1.84E-04	1.25E-04	8.87E-05	1.08E-05	1.84E-04	1.25E-04	8.87E-05	1.64E-06	3.22E-05	2.05E-05	1.44E-05	8.92E-07	2.02E-05	9.77E-06	7.10E-06
1182	259558.3	4085582	1.05E-05	1.79E-04	1.21E-04	8.63E-05	1.05E-05	1.79E-04	1.21E-04	8.63E-05	1.60E-06	3.13E-05	1.99E-05	1.40E-05	8.68E-07	1.97E-05	9.51E-06	6.91E-06
1183	259583.3	4085582	1.02E-05	1.73E-04	1.18E-04	8.35E-05	1.02E-05	1.73E-04	1.18E-04	8.35E-05	1.55E-06	3.03E-05	1.93E-05	1.35E-05	8.40E-07	1.90E-05	9.20E-06	6.69E-06
1184	259608.3	4085582	9.83E-06	1.68E-04	1.14E-04	8.07E-05	9.83E-06	1.68E-04	1.14E-04	8.07E-05	1.49E-06	2.93E-05	1.86E-05	1.31E-05	8.12E-07	1.84E-05	8.89E-06	6.46E-06
1185	259633.3	4085582	9.49E-06	1.62E-04	1.10E-04	7.79E-05	9.49E-06	1.62E-04	1.10E-04	7.79E-05	1.44E-06	2.83E-05	1.80E-05	1.26E-05	7.83E-07	1.78E-05	8.59E-06	6.24E-06
1186	259658.3	4085582	9.15E-06	1.56E-04	1.06E-04	7.52E-05	9.15E-06	1.56E-04	1.06E-04	7.52E-05	1.39E-06	2.72E-05	1.74E-05	1.22E-05	7.56E-07	1.71E-05	8.28E-06	6.01E-06
1187	259683.3	4085582	8.81E-06	1.50E-04	1.02E-04	7.24E-05	8.81E-06	1.50E-04	1.02E-04	7.24E-05	1.34E-06	2.62E-05	1.67E-05	1.17E-05	7.27E-07	1.65E-05	7.97E-06	5.79E-06
1188	259708.3	4085582	8.48E-06	1.45E-04	9.80E-05	6.97E-05	8.48E-06	1.45E-04	9.80E-05	6.97E-05	1.29E-06	2.53E-05	1.61E-05	1.13E-05	7.00E-07	1.59E-05	7.68E-06	5.58E-06
1189	259733.3	4085582	8.17E-06	1.39E-04	9.45E-05	6.71E-05	8.17E-06	1.39E-04	9.45E-05	6.71E-05	1.24E-06	2.43E-05	1.55E-05	1.09E-05	6.75E-07	1.53E-05	7.40E-06	5.37E-06
1190	259758.3	4085582	7.88E-06	1.34E-04	9.11E-05	6.47E-05	7.88E-06	1.34E-04	9.11E-05	6.47E-05	1.20E-06	2.35E-05	1.50E-05	1.05E-05	6.51E-07	1.48E-05	7.13E-06	5.18E-06
1191	259783.3	4085582	7.61E-06	1.30E-04	8.79E-05	6.25E-05	7.61E-06	1.30E-04	8.79E-05	6.25E-05	1.16E-06	2.27E-05	1.44E-05	1.01E-05	6.28E-07	1.42E-05	6.88E-06	5.00E-06
1192	259808.3	4085582	7.35E-06	1.25E-04	8.49E-05	6.04E-05	7.35E-06	1.25E-04	8.49E-05	6.04E-05	1.12E-06	2.19E-05	1.39E-05	9.77E-06	6.07E-07	1.38E-05	6.65E-06	4.83E-06
1193	259833.3	4085582	7.1E-06	1.21E-04	8.21E-05	5.84E-05	7.10E-06	1.21E-04	8.21E-05	5.84E-05	1.08E-06	2.12E-05	1.35E-05	9.45E-06	5.87E-07	1.33E-05	6.43E-06	4.67E-06
1194	259858.3	4085582	6.89E-06	1.17E-04	7.96E-05	5.66E-05	6.89E-06	1.17E-04	7.96E-05	5.66E-05	1.05E-06	2.05E-05	1.31E-05	9.16E-06	5.69E-07	1.29E-05	6.23E-06	4.53E-06
1195	259883.3	4085582	6.68E-06	1.14E-04	7.73E-05	5.49E-05	6.68E-06	1.14E-04	7.73E-05	5.49E-05	1.02E-06	1.99E-05	1.27E-05	8.89E-06	5.52E-07	1.25E-05	6.05E-06	4.39E-06
1196	259908.3	4085582	6.49E-06	1.11E-04	7.50E-05	5.33E-05	6.49E-06	1.11E-04	7.50E-05	5.33E-05	9.87E-07	1.93E-05	1.23E-05	8.63E-06	5.36E-07	1.21E-05	5.87E-06	4.27E-06
1197	259933.3	4085582	6.31E-06	1.08E-04	7.29E-05	5.18E-05	6.31E-06	1.08E-04	7.29E-05	5.18E-05	9.60E-07	1.88E-05	1.20E-05	8.39E-06	5.21E-07	1.18E-05	5.71E-06	4.15E-06
1198	259958.3	4085582	6.15E-06	1.05E-04	7.11E-05	5.05E-05	6.15E-06	1.05E-04	7.11E-05	5.05E-05	9.35E-07	1.83E-05	1.17E-05	8.18E-06	5.08E-07	1.15E-05	5.56E-06	4.04E-06
1199	259983.3	4085582	6E-06	1.02E-04	6.93E-05	4.93E-05	6.00E-06	1.02E-04	6.93E-05	4.93E-05	9.12E-07	1.79E-05	1.14E-05	7.98E-06	4.95E-07	1.12E-05	5.43E-06	3.94E-06
1200	258418.6	4084100	0.000166	2.83E-03	1.92E-03	1.36E-03	1.66E-04	2.83E-03	1.92E-03	1.36E-03	2.52E-05	4.94E-04	3.15E-04	2.21E-04	1.37E-05	3.10E-04	1.50E-04	1.09E-04
1201	258443.6	4084100	0.000171	2.92E-03	1.98E-03	1.41E-03	1.71E-04	2.92E-03	1.98E-03	1.41E-03	2.61E-05	5.10E-04	3.25E-04	2.28E-04	1.42E-05	3.21E-04	1.55E-04	1.13E-04
1202	258468.6	4084100	0.000177	3.02E-03	2.05E-03	1.46E-03	1.77E-04	3.02E-03	2.05E-03	1.46E-03	2.69E-05	5.28E-04	3.36E-04	2.36E-04	1.46E-05	3.32E-04	1.60E-04	1.17E-04
1203	258493.6	4084100	0.000183	3.13E-03	2.12E-03	1.51E-03	1.83E-04	3.13E-03	2.12E-03	1.51E-03	2.79E-05	5.46E-04	3.48E-04	2.44E-04	1.51E-05	3.43E-04	1.66E-04	1.21E-04
1204	258518.6	4084100	0.00019	3.23E-03	2.19E-03	1.56E-03	1.90E-04	3.23E-03	2.19E-03	1.56E-03	2.88E-05	5.65E-04	3.60E-04	2.52E-04	1.57E-05	3.55E-04	1.72E-04	1.25E-04
1205	258543.6	4084100	0.000196	3.35E-03	2.27E-03	1.61E-03	1.96E-04	3.35E-03	2.27E-03	1.61E-03	2.99E-05	5.85E-04	3.73E-04	2.61E-04	1.62E-05	3.67E-04	1.78E-04	1.29E-04
1206	258568.6	4084100	0.000203	3.47E-03	2.35E-03	1.67E-03	2.03E-04	3.47E-03	2.35E-03	1.67E-03	3.09E-05	6.05E-04	3.86E-04	2.70E-04	1.68E-05	3.80E-04	1.84E-04	1.34E-04
1207	258593.6	4084100	0.000211	3.60E-03	2.44E-03	1.74E-03	2.11E-04	3.60E-03	2.44E-03	1.74E-03	3.21E-05	6.29E-04	4.01E-04	2.81E-04	1.74E-05	3.95E-04	1.91E-04	1.39E-04
1208	258618.6	4084100	0.00022	3.74E-03	2.54E-03	1.80E-03	2.20E-04	3.74E-03	2.54E-03	1.80E-03	3.34E-05	6.54E-04	4.17E-04	2.92E-04	1.81E-05	4.11E-04	1.99E-04	1.44E-04
1209	258643.6	4084100	0.000227	3.88E-03	2.63E-03	1.87E-03	2.27E-04	3.88E-03	2.63E-03	1.87E-03	3.46E-05	6.77E-04	4.32E-04	3.03E-04	1.88E-05	4.26E-04	2.06E-04	1.50E-04
1210	258668.6	4084100	0.000236	4.02E-03	2.72E-03	1.93E-03	2.36E-04	4.02E-03	2.72E-03	1.93E-03	3.58E-05	7.01E-04	4.47E-04	3.13E-04	1.95E-05	4.41E-04	2.13E-04	1.55E-04
1211	258693.6	4084100	0.000244	4.16E-03	2.82E-03	2.00E-03	2.44E-04	4.16E-03	2.82E-03	2.00E-03	3.71E-05	7.26E-04	4.63E-04	3.24E-04	2.01E-05	4.56E-04	2.21E-04	1.60E-04
1212	258718.6	4084100	0.000252	4.30E-03	2.91E-03	2.07E-03	2.52E-04	4.30E-03	2.91E-03	2.07E-03	3.83E-05	7.51E-04	4.79E-04	3.35E-04	2.08E-05	4.72E-04	2.28E-04	1.66E-04
1213	258743.6	4084100	0.00026	4.44E-03	3.01E-03	2.14E-03	2.60E-04	4.44E-03	3.01E-03	2.14E-03	3.96E-05	7.76E-04	4.94E-04	3.46E-04	2.15E-05	4.87E-04	2.36E-04	1.71E-04
1214	258768.6	4084100	0.000269	4.59E-03	3.11E-03	2.21E-03	2.69E-04	4.59E-03	3.11E-03	2.21E-03	4.09E-05	8.02E-04	5.11E-04	3.58E-04	2.22E-05	5.04E-04	2.44E-04	1.77E-04
1215	258793.6	4084100	0.000278	4.75E-03	3.22E-03	2.29E-03	2.78E-04	4.75E-03	3.22E-03	2.29E-03	4.23E-05	8.29E-04	5.28E-04	3.70E-04	2.30E-05	5.21E-04	2.52E-04	1.83E-04
1216	258818.6	4084100	0.000284	4.83E-03	3.28E-03	2.33E-03	2.84E-04	4.83E-03	3.28E-03	2.33E-03	4.31E-05	8.44E-04	5.38E-04	3.77E-04	2.34E-05	5.31E-04	2.57E-04	1.86E-04
1217	258843.6	4084100	0.000286	4.87E-03	3.30E-03	2.35E-03	2.86E-04	4.87E-03	3.30E-03	2.35E-03	4.34E-05	8.51E-04	5.42E-04	3.80E-04	2.36E-05	5.35E-04	2.59E-04	1.88E-04
1218	258868.6	4084100	0.000285	4.86E-03	3.30E-03	2.34E-03	2.85E-04	4.86E-03	3.30E-03	2.34E-03	4.34E-05	8.50E-04	5.41E-04	3.79E-04	2.36E-05	5.34E-04	2.58E-04	1.88E-04
1219	258893.6	4084100	0.000292	4.98E-03	3.38E-03	2.40E-03	2.92E-04	4.98E-03	3.38E-03	2.40E-03	4.44E-05	8.70E-04	5.54E-04	3.88E-04	2.41E-05	5.47E-04	2.64E-04	1.92E-04
1220	258418.6	4084125	0.000172	2.93E-03	1.98E-03	1.41E-03	1.72E-04	2.93E-03	1.98E-03	1.41E-03	2.61E-05	5.11E-04	3.26E-04	2.28E-04	1.42E-05	3.21E-04	1.55E-04	1.13E-04
1221	258443.6	4084125	0.000178	3.03E-03	2.05E-03	1.46E-03	1.78E-04	3.03E-03	2.05E-03	1.46E-03	2.70E-05	5.29E-04	3.37E-04	2.36E-04	1.47E-05	3.33E-04	1.61E-04	1.17E-04
1222	258468.6	4084125	0.000184	3.14E-03	2.13E-03	1.51E-03	1.84E-04	3.14E-03	2.13E-03	1.51E-03	2.80E-05	5.48E-04	3.49E-04	2.45E-04	1.52E-05	3.45E-04	1.67E-04	1.21E-04
1223	258493.6	4084125	0.000191	3.25E-03	2.21E-03	1.57E-03	1.91E-04	3.25E-03	2.21E-03	1.57E-03	2.90E-05	5.68E-04	3.62E-04	2.54E-04	1.58E-05	3.57E-04	1.73E-04	1.25E-04
1224	258518.6	4084125	0.000198	3.37E-03	2.29E-03	1.63E-03	1.98E-04	3.37E-03	2.29E-03	1.63E-03	3.01E-05	5.89E-04	3.76E-04	2.63E-04	1.63E-05	3.70E-04	1.79E-04	1.30E-04
1225	258543.6	4084125

1241	258443.6	4084150	0.000184	3.13E-03	2.12E-03	1.51E-03	1.84E-04	3.13E-03	2.12E-03	1.51E-03	2.79E-05	5.47E-04	3.49E-04	2.44E-04	1.52E-05	3.44E-04	1.66E-04	1.21E-04
1242	258468.6	4084150	0.000191	3.25E-03	2.20E-03	1.57E-03	1.91E-04	3.25E-03	2.20E-03	1.57E-03	2.90E-05	5.68E-04	3.62E-04	2.54E-04	1.58E-05	3.57E-04	1.73E-04	1.25E-04
1243	258493.6	4084150	0.000198	3.38E-03	2.29E-03	1.63E-03	1.98E-04	3.38E-03	2.29E-03	1.63E-03	3.01E-05	5.90E-04	3.76E-04	2.63E-04	1.64E-05	3.71E-04	1.79E-04	1.30E-04
1244	258518.6	4084150	0.000206	3.51E-03	2.38E-03	1.69E-03	2.06E-04	3.51E-03	2.38E-03	1.69E-03	3.13E-05	6.13E-04	3.90E-04	2.74E-04	1.70E-05	3.85E-04	1.86E-04	1.35E-04
1245	258543.6	4084150	0.000214	3.65E-03	2.47E-03	1.76E-03	2.14E-04	3.65E-03	2.47E-03	1.76E-03	3.25E-05	6.37E-04	4.06E-04	2.84E-04	1.77E-05	4.00E-04	1.94E-04	1.41E-04
1246	258568.6	4084150	0.000223	3.80E-03	2.58E-03	1.83E-03	2.23E-04	3.80E-03	2.58E-03	1.83E-03	3.39E-05	6.64E-04	4.23E-04	2.97E-04	1.84E-05	4.18E-04	2.02E-04	1.47E-04
1247	258593.6	4084150	0.000233	3.97E-03	2.69E-03	1.91E-03	2.33E-04	3.97E-03	2.69E-03	1.91E-03	3.54E-05	6.93E-04	4.42E-04	3.10E-04	1.92E-05	4.36E-04	2.11E-04	1.53E-04
1248	258618.6	4084150	0.000243	4.14E-03	2.81E-03	1.99E-03	2.43E-04	4.14E-03	2.81E-03	1.99E-03	3.69E-05	7.23E-04	4.61E-04	3.23E-04	2.01E-05	4.54E-04	2.20E-04	1.60E-04
1249	258643.6	4084150	0.000253	4.31E-03	2.92E-03	2.08E-03	2.53E-04	4.31E-03	2.92E-03	2.08E-03	3.85E-05	7.53E-04	4.80E-04	3.36E-04	2.09E-05	4.73E-04	2.29E-04	1.66E-04
1250	258668.6	4084150	0.000264	4.49E-03	3.05E-03	2.17E-03	2.64E-04	4.49E-03	3.05E-03	2.17E-03	4.01E-05	7.85E-04	5.00E-04	3.51E-04	2.18E-05	4.93E-04	2.39E-04	1.73E-04
1251	258693.6	4084150	0.000275	4.68E-03	3.17E-03	2.26E-03	2.75E-04	4.68E-03	3.17E-03	2.26E-03	4.18E-05	8.18E-04	5.21E-04	3.65E-04	2.27E-05	5.14E-04	2.49E-04	1.81E-04
1252	258718.6	4084150	0.000286	4.88E-03	3.31E-03	2.35E-03	2.86E-04	4.88E-03	3.31E-03	2.35E-03	4.35E-05	8.52E-04	5.43E-04	3.80E-04	2.36E-05	5.35E-04	2.59E-04	1.88E-04
1253	258743.6	4084150	0.000297	5.07E-03	3.44E-03	2.44E-03	2.97E-04	5.07E-03	3.44E-03	2.44E-03	4.52E-05	8.86E-04	5.64E-04	3.96E-04	2.46E-05	5.57E-04	2.69E-04	1.96E-04
1254	258768.6	4084150	0.00031	5.28E-03	3.58E-03	2.54E-03	3.10E-04	5.28E-03	3.58E-03	2.54E-03	4.71E-05	9.22E-04	5.88E-04	4.12E-04	2.56E-05	5.80E-04	2.80E-04	2.04E-04
1255	258793.6	4084150	0.000322	5.49E-03	3.72E-03	2.65E-03	3.22E-04	5.49E-03	3.72E-03	2.65E-03	4.90E-05	9.60E-04	6.11E-04	4.29E-04	2.66E-05	6.03E-04	2.92E-04	2.12E-04
1256	258818.6	4084150	0.00033	5.62E-03	3.81E-03	2.71E-03	3.30E-04	5.62E-03	3.81E-03	2.71E-03	5.01E-05	9.82E-04	6.26E-04	4.39E-04	2.72E-05	6.17E-04	2.98E-04	2.17E-04
1257	258843.6	4084150	0.000334	5.70E-03	3.86E-03	2.75E-03	3.34E-04	5.70E-03	3.86E-03	2.75E-03	5.08E-05	9.95E-04	6.34E-04	4.44E-04	2.76E-05	6.25E-04	3.02E-04	2.20E-04
1258	258868.6	4084150	0.000339	5.78E-03	3.92E-03	2.78E-03	3.39E-04	5.78E-03	3.92E-03	2.78E-03	5.15E-05	1.01E-03	6.43E-04	4.51E-04	2.80E-05	6.34E-04	3.07E-04	2.23E-04
1259	258418.6	4084175	0.000182	3.11E-03	2.11E-03	1.50E-03	1.82E-04	3.11E-03	2.11E-03	1.50E-03	2.77E-05	5.43E-04	3.46E-04	2.43E-04	1.51E-05	3.41E-04	1.65E-04	1.20E-04
1260	258443.6	4084175	0.000189	3.23E-03	2.19E-03	1.56E-03	1.89E-04	3.23E-03	2.19E-03	1.56E-03	2.88E-05	5.64E-04	3.59E-04	2.52E-04	1.56E-05	3.55E-04	1.71E-04	1.25E-04
1261	258468.6	4084175	0.000197	3.36E-03	2.28E-03	1.62E-03	1.97E-04	3.36E-03	2.28E-03	1.62E-03	2.99E-05	5.86E-04	3.74E-04	2.62E-04	1.63E-05	3.68E-04	1.78E-04	1.29E-04
1262	258493.6	4084175	0.000205	3.49E-03	2.37E-03	1.68E-03	2.05E-04	3.49E-03	2.37E-03	1.68E-03	3.11E-05	6.10E-04	3.88E-04	2.72E-04	1.69E-05	3.83E-04	1.85E-04	1.35E-04
1263	258518.6	4084175	0.000213	3.63E-03	2.46E-03	1.75E-03	2.13E-04	3.63E-03	2.46E-03	1.75E-03	3.24E-05	6.35E-04	4.04E-04	2.83E-04	1.76E-05	3.99E-04	1.93E-04	1.40E-04
1264	258543.6	4084175	0.000223	3.79E-03	2.57E-03	1.83E-03	2.23E-04	3.79E-03	2.57E-03	1.83E-03	3.38E-05	6.63E-04	4.22E-04	2.96E-04	1.84E-05	4.16E-04	2.01E-04	1.46E-04
1265	258568.6	4084175	0.000233	3.96E-03	2.69E-03	1.91E-03	2.33E-04	3.96E-03	2.69E-03	1.91E-03	3.54E-05	6.93E-04	4.41E-04	3.09E-04	1.92E-05	4.35E-04	2.10E-04	1.53E-04
1266	258593.6	4084175	0.000243	4.14E-03	2.81E-03	1.99E-03	2.43E-04	4.14E-03	2.81E-03	1.99E-03	3.69E-05	7.23E-04	4.61E-04	3.23E-04	2.01E-05	4.55E-04	2.20E-04	1.60E-04
1267	258618.6	4084175	0.000253	4.32E-03	2.93E-03	2.08E-03	2.53E-04	4.32E-03	2.93E-03	2.08E-03	3.85E-05	7.55E-04	4.81E-04	3.37E-04	2.09E-05	4.74E-04	2.29E-04	1.67E-04
1268	258643.6	4084175	0.000265	4.51E-03	3.06E-03	2.17E-03	2.65E-04	4.51E-03	3.06E-03	2.17E-03	4.03E-05	7.88E-04	5.02E-04	3.52E-04	2.19E-05	4.95E-04	2.40E-04	1.74E-04
1269	258668.6	4084175	0.000277	4.71E-03	3.20E-03	2.27E-03	2.77E-04	4.71E-03	3.20E-03	2.27E-03	4.21E-05	8.24E-04	5.25E-04	3.68E-04	2.28E-05	5.18E-04	2.50E-04	1.82E-04
1270	258693.6	4084175	0.000289	4.93E-03	3.34E-03	2.37E-03	2.89E-04	4.93E-03	3.34E-03	2.37E-03	4.39E-05	8.60E-04	5.48E-04	3.84E-04	2.39E-05	5.41E-04	2.61E-04	1.90E-04
1271	258718.6	4084175	0.000302	5.15E-03	3.49E-03	2.48E-03	3.02E-04	5.15E-03	3.49E-03	2.48E-03	4.59E-05	8.99E-04	5.73E-04	4.01E-04	2.49E-05	5.65E-04	2.73E-04	1.98E-04
1272	258743.6	4084175	0.000316	5.38E-03	3.65E-03	2.59E-03	3.16E-04	5.38E-03	3.65E-03	2.59E-03	4.80E-05	9.40E-04	5.99E-04	4.20E-04	2.61E-05	5.91E-04	2.86E-04	2.08E-04
1273	258768.6	4084175	0.00033	5.63E-03	3.82E-03	2.71E-03	3.30E-04	5.63E-03	3.82E-03	2.71E-03	5.02E-05	9.83E-04	6.26E-04	4.39E-04	2.73E-05	6.18E-04	2.99E-04	2.17E-04
1274	258793.6	4084175	0.000343	5.85E-03	3.97E-03	2.82E-03	3.43E-04	5.85E-03	3.97E-03	2.82E-03	5.22E-05	1.02E-03	6.51E-04	4.56E-04	2.83E-05	6.42E-04	3.11E-04	2.26E-04
1275	258818.6	4084175	0.000352	6.00E-03	4.07E-03	2.89E-03	3.52E-04	6.00E-03	4.07E-03	2.89E-03	5.35E-05	1.05E-03	6.68E-04	4.68E-04	2.91E-05	6.59E-04	3.19E-04	2.31E-04
1276	258843.6	4084175	0.000358	6.11E-03	4.14E-03	2.94E-03	3.58E-04	6.11E-03	4.14E-03	2.94E-03	5.45E-05	1.07E-03	6.79E-04	4.76E-04	2.96E-05	6.70E-04	3.24E-04	2.35E-04
1277	258868.6	4084175	0.000369	6.30E-03	4.27E-03	3.03E-03	3.69E-04	6.30E-03	4.27E-03	3.03E-03	5.62E-05	1.10E-03	7.01E-04	4.91E-04	3.05E-05	6.91E-04	3.34E-04	2.43E-04
1278	258418.6	4084200	0.000187	3.19E-03	2.16E-03	1.54E-03	1.87E-04	3.19E-03	2.16E-03	1.54E-03	2.85E-05	5.57E-04	3.55E-04	2.49E-04	1.55E-05	3.50E-04	1.69E-04	1.23E-04
1279	258443.6	4084200	0.000195	3.32E-03	2.25E-03	1.60E-03	1.95E-04	3.32E-03	2.25E-03	1.60E-03	2.96E-05	5.80E-04	3.69E-04	2.59E-04	1.61E-05	3.64E-04	1.76E-04	1.28E-04
1280	258468.6	4084200	0.000203	3.45E-03	2.34E-03	1.66E-03	2.03E-04	3.45E-03	2.34E-03	1.66E-03	3.08E-05	6.03E-04	3.84E-04	2.69E-04	1.67E-05	3.79E-04	1.83E-04	1.33E-04
1281	258493.6	4084200	0.000211	3.60E-03	2.44E-03	1.73E-03	2.11E-04	3.60E-03	2.44E-03	1.73E-03	3.21E-05	6.28E-04	4.00E-04	2.81E-04	1.74E-05	3.95E-04	1.91E-04	1.39E-04
1282	258518.6	4084200	0.00022	3.76E-03	2.55E-03	1.81E-03	2.20E-04	3.76E-03	2.55E-03	1.81E-03	3.35E-05	6.56E-04	4.18E-04	2.93E-04	1.82E-05	4.12E-04	1.99E-04	1.45E-04
1283	258543.6	4084200	0.000231	3.93E-03	2.67E-03	1.90E-03	2.31E-04	3.93E-03	2.67E-03	1.90E-03	3.51E-05	6.87E-04	4.38E-04	3.07E-04	1.91E-05	4.32E-04	2.09E-04	1.52E-04
1284	258568.6	4084200	0.000241	4.11E-03	2.79E-03	1.98E-03	2.41E-04	4.11E-03	2.79E-03	1.98E-03	3.67E-05	7.18E-04	4.57E-04	3.21E-04	1.99E-05	4.51E-04	2.18E-04	1.58E-04
1285	258593.6	4084200	0.000252	4.30E-03	2.91E-03	2.07E-03	2.52E-04	4.30E-03	2.91E-03	2.07E-03	3.83E-05	7.50E-04	4.78E-04	3.35E-04	2.08E-05	4.72E-04	2.28E-04	1.66E-04
1286	258618.6	4084200	0.000263	4.49E-03	3.05E-03	2.16E-03	2.63E-04	4.49E-03	3.05E-03	2.16E-03	4.01E-05	7.85E-04	5.00E-04	3.50E-04	2.18E-05	4.93E-04	2.38E-04	1.73E-04
1287	258643.6	4084200	0.000276	4.70E-03	3.19E-03	2.26E-03	2.76E-04	4.70E-03	3.19E-03	2.26E-03	4.19E-05	8.21E-04	5.23E-04	3.67E-04	2.28E-05	5.16E-04	2.50E-04	1.81E-04
1288	258668.6	4084200	0.000289	4.92E-03	3.34E-03	2.37E-03	2.89E-04	4.92E-03	3.34E-03	2.37E-03	4.39E-05	8.60E-04	5.48E-04	3.84E-04	2.38E-05	5.40E-04	2.61E-04	1.90E-04
1289	258693.6	4084200	0.000302	5.15E-03	3.49E-03	2.48E-03	3.02E-04	5.15E-03	3.49E-03	2.48E-03	4.60E-05	9.00E-04	5.74E-04	4.02E-04	2.50E-05	5.66E-04	2.74E-04	1.99E-04
1290	258718.6	4084200	0.000317	5.40E-03	3.66E-03	2.60E-03	3.17E-04	5.40E-03	3.66E-03	2.60E-03	4.81E-05	9.43E-04	6.01E-04	4.21E-04	2.61E-05	5.92E-04	2.86E-04	2.08E-04
1291	258743.6	4084200	0.000333	5.67E-03	3.85E-03	2.73E-03	3.33E-04	5.67E-03	3.85E-03	2.73E-03	5.06E-05	9.91E-04	6.32E-04	4.43E-04	2.75E-05	6.23E-04	3.01E-04	2.19E-04
1292	258768.6	4084200	0.000349	5.96E-03	4.04E-03	2.87E-03	3.49E-04	5.96E-03	4.04E-03	2.87E-03	5.31E-05	1.04E-03	6.63E-04	4.65E-04	2.89E-05	6.54E-04	3.16E-04	2.30E-04
1293	258793.6	4084200	0.000363	6.18E-03	4.19E-03	2.98E-03	3.63E-04	6.18E-03	4.19E-03	2.98E-03	5.51E-05	1.08E-03	6.88E-04	4.82E-04	2.99E-05	6.79E-04	3.28E-04	2.38E-04
1294	258818.6	4084200	0.000373	6.36E-03	4.31E-03	3.06E-03	3.73E-04	6.36E-03	4.31E-03	3.06E-03	5.67E-05	1.11E-03	7.08E-04	4.96E-04	3.08E-05	6.98E-04	3.37E-04	2.45E-04
1295	258843.6	4084200	0.00038	6.49E-03	4.40E-03	3.12E-03	3.80E-04	6.49E-03	4.40E-03	3.12E-03	5.78E-05	1.13E-03	7.22E-04	5.06E-04	3.14E-05	7.12E-04	3.44E-04	2.50E-04
1296	258868.6	4084200	0.000399	6.79E-03	4.61E-03	3.27E-03	3.99E-04	6.79E-03	4.61E-03	3.27E-03	6.06E-05	1.19E-03	7.56E-04	5.30E-04	3.29E-05	7.46E-04	3.61E-04	2.62E-04
1297	258418.6	4084225	0.000191	3.26E-03	2.21E-03	1.57E-03	1.91E-04	3.26E-03	2.21E-03	1.57E-03	2.91E-05	5.70E-04	3.63E-04	2.55E-04	1.58E-05	3.58E-04	1.73E-04	1.26E-04
1298	258443.6	4084225	0.000199	3.40E-03	2.30E-03	1.64E-03	1.99E-04	3.40E-03	2.30E-03	1.64E-03	3.03E-05	5.94E-04	3.78E-04	2.65E-04	1.65E-05	3.73E-04	1.80E-04	1.31E-04
1299	258468.6	4084225	0.000208	3.54E-03	2.40E-03	1.71E-03	2.08E-04	3.54E-03	2.40E-03	1.71E-03	3.16E-05	6.19E-04	3.94E-04	2.76E-04	1.72E-05	3.89E-04	1.88E-04	1.37E-04
1300	258493.6	4084225	0.000217	3.70E-03	2.51E-03	1.78E-03	2.17E-04	3.70E-03	2.51E-03	1.78E-03	3.30E-05	6.46E-04	4.12E-04	2.89E-04	1.79E-05	4.06E-04	1.96E-04	1.43E-04
1301	258518.6	4084225	0.000228	3.88E-03	2.63E-03	1.87E-03	2.28E-04	3.88E-03	2.63E-03	1.87E-03	3.46E-05	6.78E-04	4.32E-04	3.03E-04	1.88E-05	4.26E-04	2.06E-04	1.50E-04
1302	258543.6	4084225	0.000238	4.05E-03	2.75E-03	1.95E-03	2.38E-04	4.05E-03	2.75E-03	1.95E-03	3.62E-05	7.08E-04	4.51E-04	3.16E-04	1.96E-05	4.45E-04	2.15E-04	1.56E-04
1303	258568.6	4084225	0.000249	4.24E-03	2.87E-03	2.04E-03	2.49E-04	4.24E-03	2.87E-03	2.04E-03	3.78E-05	7.41E-04	4.72E-04	3.31E-04	2.05E-05	4.65E-04	2.25E-04	1.63E-04
1304	258593.6	4084225	0.00026	4.44E-03	3.01E-03	2.14E-03	2.60E-04	4.44E-03	3.01E-03	2.14E-03	3.96E-05	7.75E-04	4.94E-04	3.46E-04	2.15E-05	4.87E-04	2.36E-04	1.71E-04
1305	258618.6	4084225	0.000273	4.65E-03	3.15E-03	2.24E-03	2.73E-04	4.65E-03	3.15E-03	2.24E-03	4.15E-05	8.12E-04	5.17E-04	3.63E-04	2.25E-05	5.10E-04	2.47E-04	1.79E-04
1306	258643.6	4084225	0.000286	4.87E-03	3.30E-03	2.35E-03	2.86E-04	4.87E-03	3.30E-03	2.35E-03	4.35E-05	8.51E-04	5.42E-04	3.80E-04	2.36E-05	5.35E-04	2.59E-04	1.88E-04
1307	258668.6	4084225	0.0003	5.11E-03	3.47E-03	2.46E-03	3.00E-04	5.11E-03	3.47E-03	2.46E-03	4.56E-05	8.93E-04	5.69E-04	3.99E-04	2.48E-05	5.61E-04	2.71E-04	1.97E-04
1308	258693.6	4084225	0.000315	5.36E-03	3.64E-03	2.58E-03	3.15E-04	5.36E-03	3.64E-03	2.58E-03	4.78E-05	9.37E-04	5.97E-04	4.18E-04	2.60E-05	5.89E-04	2.85E-04	2.07E-04
1309	258718.6	4084225	0.00033	5.63E-03	3.82E-03	2.71E-03	3.30E-04	5.63E-03	3.82E-03	2.71E-03	5.02E-05	9.83E-04	6.27E-04	4.39E-04	2.73E-05	6.18E-04	2.99E-04	2.17E-04
1310	258743.6	4084225	0.000348	5.93E-03	4.02E-03	2.86E-03	3.48E-04	5.93E-03	4.02E-03	2.86E-03	5.29E-05	1.04E-03	6.60E-04	4.63E-04	2.87E-05	6.51E-04	3.15E-04	2.29E-04
1311	258768.6	4084225	0.000365	6.23E-03	4.22E-03	3.00E-03	3.65E-04	6.23E-03	4.22E-03	3.00E-03	5.56E-05	1.09E-03	6.93E-04	4.86E-04	3.02E-05	6.84E-04	3.31E-04	2.40E-04
1312	258793.6	4084225	0.00038	6.48E-03	4.39E-03	3.12E-03	3.80E-04	6.48E-03	4.39E-03	3.12E-03	5.78E-05	1.13E-03	7.21E-04	5.05E-04	3.14E-05	7.11E-04	3.44E-04	2.50E-04
1313	258818.6	4084225	0.000392	6.68E-03	4.53E-03	3.22E-03	3.92E-04	6.68E-03	4.53E-03	3.22E-03	5.96E-05	1.17E-03	7.43E-04	5.21E-04	3.23E-05	7.33E-04	3.54E-04	2.57E-04
1314	258843.6	4084225	0.000401	6.83E-03	4.63E-03	3.29E-03	4.01E-04	6.83E-03	4.63E-03	3.29E-03	6.09E-05	1.19E-03	7.60E-04	5.33E-04	3.31E-05	7.50E-04	3.63E-04	2.63E-04
1315	258418.6	4084250	0.000195	3.33E-03	2.26E-03	1.60E-03	1.95E-04	3.33E-03	2.26E-03	1.60E-03	2.97E-05	5.82E-04	3.71E-04	2.60E-04	1.61E-05	3.66E-04	1.77E-04	1.28E-04
1316	258443.6	4084250	0.000204	3.47E-03	2.35E-03	1.67E-03	2.04E-04	3.47E-03	2.35E-03	1.67E-03	3.10E-05	6.06E-04	3.86E-04	2.71E-04	1.68E-05	3.81E-04	1.84E-04	1.34E-04
1317	258468.6	4084250	0.000213	3.63E-03	2.46E-03	1.75E-03	2.13E-04	3.63E-03	2.46E-03	1.75E-03	3.24E-05	6.34E-04	4.04E-04	2.83E-04	1.76E-05	3.98E-04	1.93E-04	1.40E-04
1318	258493.6	4084250	0.000223	3.80E-03	2.58E-03	1.83E-03	2.23E-04	3.80E-03	2.58E-03	1.83E-03	3.39E-05	6.64E-04	4.23E-04	2.97E-04	1.84E-05	4.18E-04	2.02E-04	1.47E-04
1319	258518.6	4084250	0.000233	3.98E-03	2.70E-03	1.92E-03	2.33E-04	3.98E-03	2.70E-03	1.92E-03	3.55E-05	6.95E-04	4.43E-04	3.10E-04	1.93E-05	4.37E-04	2.11E-04	1.53E-04
1320	258543.6	4084250	0.000244	4.16E-03	2.82E-03	2.00E-03	2.44E-04	4.16E-03	2.82E-03	2.00E-03	3.71E-05	7.27E-04	4.63E-04	3.25E-04	2.02E-05	4.57E-04	2.21E-04	1.60E-04
1321	258568.6	4084250	0.000256	4.36E-03	2.95E-03	2.10E-03	2.56E-04	4.36E-03	2.95E-03	2.10E-03	3.89E-05	7.61E-04	4.85E-04	3.40E-04	2.11E-05	4.78E-04	2.31E-04	1.68E-04
1322	258593.6	4084250	0.000268	4.57E-03	3.10E-03	2.20E-03	2.68E-04	4.57E-03	3.10E-03	2.20E-03	4.07E-05	7.98E-04	5.08E-04	3.56E-04	2.21E-05	5.01E-04	2.42E-04	1.76E-04
1323	258618.6	4084250	0.000281	4.79E-03	3.25E-03	2.31E-03	2.81E-04	4.79E-03	3.25E-03	2.31E-03	4.27E-05	8.37E-04	5.33E-04	3.74E-04	2.32E-05	5.26E-04	2.54E-04	1.85E-04
1324	258643.6	4084250	0.000295	5.03E-03	3.41E-03	2.42E-03	2.95E-04	5.03E-03	3.41E-03	2.42E-03	4.49E-05	8.79E-04	5.60E-04	3.92E-04	2.44E-05	5.52E-04	2.67E-04	1.94E-04
1325	258668.6	4084250	0.00031	5.28E-03	3.58E-03	2.55E-03	3.10E-04	5.28E-03	3.58E-03	2.55E-03	4.71E-05	9.23E-04	5.88E-04	4.12E-04	2.56E-05	5.80E-04	2.80E-04	2.04E-04
1326	258693.6	4084250	0.000326	5.55E-03	3.76E-03	2.67E-03	3.26E-04	5.55E-03	3.76E-03	2.67E-03	4.95E-05	9.69E-04	6.18E-04	4.33E-04	2.69E-05	6.09E-04	2.95E-04	2.14E-04
1327	258718.6	4084250	0.000344	5.87E-03	3.98E-03	2.83E-03	3.44E-04	5.87E-03	3.98E-03	2.83E-03	5.23E-05	1.02E-03	6.53E-04	4.58E-04	2.84E-05	6.44E-04	3.11E-04	2.26E-04
1328	258743.6	4084250	0.000362	6.18E-03	4.19E-03	2.98E-03	3.62E-04	6.18E-03	4.19E-03	2.98E-03	5.51E-05	1.08E-03	6.88E-04	4.82E-04	2.99E-05	6.78E-04	3.28E-04	2.38E-04
1329	258768.6	4084250	0.000379	6.47E-03	4.39E-03	3.12E-03	3.79E-04	6.47E-03	4.39E-03	3.12E-03	5.77E-05	1.13E-03	7.20E-04	5.05E-04	3.13E-05	7.10E-04	3.43E-04	2.49E-04
1330	258793.6	4084250	0.000395	6.73E-03	4.57E-03	3.24E-03	3.95E-04	6.73E-03	4.57E-03	3.24E-03	6.01E-05	1.18E-03	7.49E-04	5.25E-04	3.26E-05	7.39E-04	3.57E-04	2.60E-04
1331	258818.6	4084250	0.000408	6.95E-03	4.71E-03	3.35E-03	4.08E-04	6.95E-03	4.71E-03	3.35E-03	6.20E-05	1.21E-03	7.74E-04	5.43E-04	3.37E-05	7.63E-04	3.69E-04	2.68E-04
1332	258843.6	4084250	0.000418	7.13E-03	4.83E-03	3.43E-03	4.18E-04	7.13E-03	4.83E-03	3.43E-03	6.36E-05	1.24E-03	7.93E-04	5.56E-04	3.45E-05	7.82E-04	3.78E-04	2.75E-04
1333	258418.6	4084275	0.000199	3.39E-03	2.30E-03	1.63E-03	1.99E-04	3.39E-03	2.30E-03	1.63E-03	3.02E-05	5.91E-04	3.77E-04	2.64E-04	1.64E-05	3.72E-04	1.80E-04	1.31E-04
1334	258443.6	4084275	0.000207	3.53E-03	2.40E-03	1.70E-03	2.07E-04	3.53E-03	2.40E-03	1.70E-03	3.15E-05	6.17E-04	3.93E-04	2.76E-04	1.71E-05	3.88E-04	1.88E-04	1.36E-04
1335	258468.6	4084275	0.000217	3.70E-03	2.51E-03	1.78E-03	2.17E-04	3.70E-03	2.51E-03	1.78E-03	3.30E-05	6.46E-04	4.12E-04	2.88E-04	1.79E-05	4.06E-04	1.96E-04	1.43E-04
1336	258493.6	4084275	0.000228	3.88E-03	2.63E-03	1.87E-03	2.28E-04	3.88E-03	2.63E-03	1.87E-03	3.46E-05	6.78E-04	4.32E-04	3.03E-04	1.88E-05	4.26E-04	2.06E-04	1.50E-04
1337	258518.6	4084275	0.000238	4.06E-03	2.75E-03	1.96E-03	2.38E-04	4.06E-03	2.75E-03	1.96E-03	3.62E-05	7.10E-04	4.52E-04	3.17E-04	1.97E-05	4.46E-04	2.16E-04	1.57E-04
1338	258543.6	4084275	0.00025	4.26E-03	2.89E-03	2.05E-03	2.50E-04	4.26E-03	2.89E-03	2.05E-03	3.80E-05	7.43E-04	4.74E-04	3.32E-04	2.06E-05	4.67E-04	2.26E-04	1.64E-04
1339	258568

1354	258493.6	4084300	0.000231	3.95E-03	2.68E-03	1.90E-03	2.31E-04	3.95E-03	2.68E-03	1.90E-03	3.52E-05	6.89E-04	4.39E-04	3.08E-04	1.91E-05	4.33E-04	2.10E-04	1.52E-04
1355	258518.6	4084300	0.000243	4.13E-03	2.80E-03	1.99E-03	2.43E-04	4.13E-03	2.80E-03	1.99E-03	3.69E-05	7.22E-04	4.60E-04	3.23E-04	2.00E-05	4.54E-04	2.19E-04	1.59E-04
1356	258543.6	4084300	0.000254	4.34E-03	2.94E-03	2.09E-03	2.54E-04	4.34E-03	2.94E-03	2.09E-03	3.87E-05	7.57E-04	4.83E-04	3.38E-04	2.10E-05	4.76E-04	2.30E-04	1.67E-04
1357	258568.6	4084300	0.000267	4.55E-03	3.09E-03	2.19E-03	2.67E-04	4.55E-03	3.09E-03	2.19E-03	4.06E-05	7.95E-04	5.07E-04	3.55E-04	2.20E-05	5.00E-04	2.42E-04	1.75E-04
1358	258593.6	4084300	0.00028	4.78E-03	3.24E-03	2.30E-03	2.80E-04	4.78E-03	3.24E-03	2.30E-03	4.26E-05	8.35E-04	5.32E-04	3.73E-04	2.32E-05	5.25E-04	2.54E-04	1.84E-04
1359	258618.6	4084300	0.000295	5.03E-03	3.41E-03	2.42E-03	2.95E-04	5.03E-03	3.41E-03	2.42E-03	4.48E-05	8.78E-04	5.59E-04	3.92E-04	2.43E-05	5.52E-04	2.67E-04	1.94E-04
1360	258643.6	4084300	0.00031	5.29E-03	3.58E-03	2.55E-03	3.10E-04	5.29E-03	3.58E-03	2.55E-03	4.72E-05	9.23E-04	5.88E-04	4.12E-04	2.56E-05	5.80E-04	2.81E-04	2.04E-04
1361	258668.6	4084300	0.000326	5.56E-03	3.77E-03	2.68E-03	3.26E-04	5.56E-03	3.77E-03	2.68E-03	4.96E-05	9.72E-04	6.19E-04	4.34E-04	2.69E-05	6.11E-04	2.95E-04	2.14E-04
1362	258693.6	4084300	0.000345	5.88E-03	3.99E-03	2.83E-03	3.45E-04	5.88E-03	3.99E-03	2.83E-03	5.25E-05	1.03E-03	6.55E-04	4.59E-04	2.85E-05	6.46E-04	3.12E-04	2.27E-04
1363	258718.6	4084300	0.000364	6.21E-03	4.21E-03	2.99E-03	3.64E-04	6.21E-03	4.21E-03	2.99E-03	5.54E-05	1.08E-03	6.91E-04	4.84E-04	3.01E-05	6.81E-04	3.29E-04	2.39E-04
1364	258743.6	4084300	0.000383	6.52E-03	4.42E-03	3.14E-03	3.83E-04	6.52E-03	4.42E-03	3.14E-03	5.82E-05	1.14E-03	7.26E-04	5.09E-04	3.16E-05	7.16E-04	3.46E-04	2.52E-04
1365	258768.6	4084300	0.000401	6.83E-03	4.63E-03	3.29E-03	4.01E-04	6.83E-03	4.63E-03	3.29E-03	6.09E-05	1.19E-03	7.60E-04	5.33E-04	3.31E-05	7.50E-04	3.63E-04	2.63E-04
1366	258793.6	4084300	0.000418	7.13E-03	4.83E-03	3.43E-03	4.18E-04	7.13E-03	4.83E-03	3.43E-03	6.35E-05	1.24E-03	7.93E-04	5.56E-04	3.45E-05	7.82E-04	3.78E-04	2.75E-04
1367	258818.6	4084300	0.000435	7.41E-03	5.02E-03	3.57E-03	4.35E-04	7.41E-03	5.02E-03	3.57E-03	6.61E-05	1.29E-03	8.25E-04	5.78E-04	3.59E-05	8.13E-04	3.93E-04	2.86E-04
1368	258843.6	4084300	0.000455	7.77E-03	5.26E-03	3.74E-03	4.55E-04	7.77E-03	5.26E-03	3.74E-03	6.93E-05	1.36E-03	8.64E-04	6.06E-04	3.76E-05	8.52E-04	4.12E-04	2.99E-04
1369	258418.6	4084325	0.000203	3.47E-03	2.35E-03	1.67E-03	2.03E-04	3.47E-03	2.35E-03	1.67E-03	3.09E-05	6.06E-04	3.86E-04	2.71E-04	1.68E-05	3.81E-04	1.84E-04	1.34E-04
1370	258443.6	4084325	0.000213	3.64E-03	2.47E-03	1.75E-03	2.13E-04	3.64E-03	2.47E-03	1.75E-03	3.24E-05	6.35E-04	4.05E-04	2.84E-04	1.76E-05	3.99E-04	1.93E-04	1.40E-04
1371	258468.6	4084325	0.000224	3.82E-03	2.59E-03	1.84E-03	2.24E-04	3.82E-03	2.59E-03	1.84E-03	3.40E-05	6.67E-04	4.25E-04	2.98E-04	1.85E-05	4.19E-04	2.03E-04	1.47E-04
1372	258493.6	4084325	0.000235	4.00E-03	2.71E-03	1.93E-03	2.35E-04	4.00E-03	2.71E-03	1.93E-03	3.57E-05	6.98E-04	4.45E-04	3.12E-04	1.94E-05	4.39E-04	2.12E-04	1.54E-04
1373	258518.6	4084325	0.000246	4.19E-03	2.84E-03	2.02E-03	2.46E-04	4.19E-03	2.84E-03	2.02E-03	3.74E-05	7.32E-04	4.67E-04	3.27E-04	2.03E-05	4.60E-04	2.23E-04	1.62E-04
1374	258543.6	4084325	0.000258	4.40E-03	2.98E-03	2.12E-03	2.58E-04	4.40E-03	2.98E-03	2.12E-03	3.92E-05	7.69E-04	4.90E-04	3.43E-04	2.13E-05	4.83E-04	2.34E-04	1.70E-04
1375	258568.6	4084325	0.000271	4.62E-03	3.13E-03	2.23E-03	2.71E-04	4.62E-03	3.13E-03	2.23E-03	4.12E-05	8.07E-04	5.14E-04	3.61E-04	2.24E-05	5.07E-04	2.45E-04	1.78E-04
1376	258593.6	4084325	0.000285	4.86E-03	3.29E-03	2.34E-03	2.85E-04	4.86E-03	3.29E-03	2.34E-03	4.33E-05	8.49E-04	5.41E-04	3.79E-04	2.35E-05	5.33E-04	2.58E-04	1.87E-04
1377	258618.6	4084325	0.0003	5.12E-03	3.47E-03	2.47E-03	3.00E-04	5.12E-03	3.47E-03	2.47E-03	4.57E-05	8.94E-04	5.70E-04	3.99E-04	2.48E-05	5.62E-04	2.72E-04	1.97E-04
1378	258643.6	4084325	0.000317	5.40E-03	3.66E-03	2.60E-03	3.17E-04	5.40E-03	3.66E-03	2.60E-03	4.82E-05	9.44E-04	6.01E-04	4.21E-04	2.62E-05	5.93E-04	2.87E-04	2.08E-04
1379	258668.6	4084325	0.000334	5.69E-03	3.86E-03	2.74E-03	3.34E-04	5.69E-03	3.86E-03	2.74E-03	5.07E-05	9.94E-04	6.33E-04	4.44E-04	2.76E-05	6.24E-04	3.02E-04	2.19E-04
1380	258693.6	4084325	0.000353	6.01E-03	4.08E-03	2.90E-03	3.53E-04	6.01E-03	4.08E-03	2.90E-03	5.36E-05	1.05E-03	6.69E-04	4.69E-04	2.91E-05	6.60E-04	3.19E-04	2.32E-04
1381	258718.6	4084325	0.000371	6.33E-03	4.29E-03	3.05E-03	3.71E-04	6.33E-03	4.29E-03	3.05E-03	5.64E-05	1.11E-03	7.04E-04	4.94E-04	3.07E-05	6.95E-04	3.36E-04	2.44E-04
1382	258743.6	4084325	0.00039	6.65E-03	4.51E-03	3.20E-03	3.90E-04	6.65E-03	4.51E-03	3.20E-03	5.93E-05	1.16E-03	7.40E-04	5.18E-04	3.22E-05	7.30E-04	3.53E-04	2.56E-04
1383	258768.6	4084325	0.000408	6.96E-03	4.72E-03	3.35E-03	4.08E-04	6.96E-03	4.72E-03	3.35E-03	6.20E-05	1.22E-03	7.74E-04	5.43E-04	3.37E-05	7.64E-04	3.69E-04	2.68E-04
1384	258793.6	4084325	0.000426	7.26E-03	4.92E-03	3.50E-03	4.26E-04	7.26E-03	4.92E-03	3.50E-03	6.48E-05	1.27E-03	8.08E-04	5.66E-04	3.52E-05	7.97E-04	3.85E-04	2.80E-04
1385	258818.6	4084325	0.000446	7.61E-03	5.16E-03	3.67E-03	4.46E-04	7.61E-03	5.16E-03	3.67E-03	6.79E-05	1.33E-03	8.47E-04	5.94E-04	3.69E-05	8.35E-04	4.04E-04	2.93E-04
1386	258843.6	4084325	0.000471	8.03E-03	5.44E-03	3.87E-03	4.71E-04	8.03E-03	5.44E-03	3.87E-03	7.16E-05	1.40E-03	8.93E-04	6.26E-04	3.89E-05	8.81E-04	4.26E-04	3.10E-04
1387	258418.6	4084350	0.000205	3.50E-03	2.37E-03	1.69E-03	2.05E-04	3.50E-03	2.37E-03	1.69E-03	3.12E-05	6.11E-04	3.89E-04	2.73E-04	1.69E-05	3.84E-04	1.86E-04	1.35E-04
1388	258443.6	4084350	0.000215	3.67E-03	2.49E-03	1.77E-03	2.15E-04	3.67E-03	2.49E-03	1.77E-03	3.27E-05	6.41E-04	4.08E-04	2.86E-04	1.78E-05	4.03E-04	1.95E-04	1.41E-04
1389	258468.6	4084350	0.000226	3.85E-03	2.61E-03	1.85E-03	2.26E-04	3.85E-03	2.61E-03	1.85E-03	3.43E-05	6.72E-04	4.28E-04	3.00E-04	1.86E-05	4.23E-04	2.04E-04	1.48E-04
1390	258493.6	4084350	0.000237	4.04E-03	2.74E-03	1.94E-03	2.37E-04	4.04E-03	2.74E-03	1.94E-03	3.60E-05	7.05E-04	4.49E-04	3.15E-04	1.95E-05	4.43E-04	2.14E-04	1.56E-04
1391	258518.6	4084350	0.000248	4.23E-03	2.87E-03	2.04E-03	2.48E-04	4.23E-03	2.87E-03	2.04E-03	3.78E-05	7.40E-04	4.71E-04	3.30E-04	2.05E-05	4.65E-04	2.25E-04	1.63E-04
1392	258543.6	4084350	0.000261	4.45E-03	3.02E-03	2.14E-03	2.61E-04	4.45E-03	3.02E-03	2.14E-03	3.97E-05	7.77E-04	4.95E-04	3.47E-04	2.15E-05	4.88E-04	2.36E-04	1.71E-04
1393	258568.6	4084350	0.000274	4.67E-03	3.17E-03	2.25E-03	2.74E-04	4.67E-03	3.17E-03	2.25E-03	4.17E-05	8.17E-04	5.20E-04	3.65E-04	2.26E-05	5.13E-04	2.48E-04	1.80E-04
1394	258593.6	4084350	0.000289	4.92E-03	3.34E-03	2.37E-03	2.89E-04	4.92E-03	3.34E-03	2.37E-03	4.39E-05	8.60E-04	5.48E-04	3.84E-04	2.38E-05	5.40E-04	2.61E-04	1.90E-04
1395	258618.6	4084350	0.000305	5.20E-03	3.52E-03	2.50E-03	3.05E-04	5.20E-03	3.52E-03	2.50E-03	4.64E-05	9.08E-04	5.78E-04	4.05E-04	2.52E-05	5.71E-04	2.76E-04	2.00E-04
1396	258643.6	4084350	0.000322	5.49E-03	3.72E-03	2.65E-03	3.22E-04	5.49E-03	3.72E-03	2.65E-03	4.90E-05	9.59E-04	6.11E-04	4.29E-04	2.66E-05	6.03E-04	2.92E-04	2.12E-04
1397	258668.6	4084350	0.000339	5.79E-03	3.92E-03	2.79E-03	3.39E-04	5.79E-03	3.92E-03	2.79E-03	5.16E-05	1.01E-03	6.44E-04	4.51E-04	2.80E-05	6.35E-04	3.07E-04	2.23E-04
1398	258693.6	4084350	0.000357	6.09E-03	4.13E-03	2.94E-03	3.57E-04	6.09E-03	4.13E-03	2.94E-03	5.44E-05	1.06E-03	6.78E-04	4.75E-04	2.95E-05	6.69E-04	3.24E-04	2.35E-04
1399	258718.6	4084350	0.000376	6.41E-03	4.35E-03	3.09E-03	3.76E-04	6.41E-03	4.35E-03	3.09E-03	5.72E-05	1.12E-03	7.14E-04	5.00E-04	3.11E-05	7.04E-04	3.40E-04	2.47E-04
1400	258743.6	4084350	0.000395	6.73E-03	4.56E-03	3.24E-03	3.95E-04	6.73E-03	4.56E-03	3.24E-03	6.01E-05	1.18E-03	7.49E-04	5.25E-04	3.26E-05	7.39E-04	3.57E-04	2.60E-04
1401	258768.6	4084350	0.000414	7.06E-03	4.78E-03	3.40E-03	4.14E-04	7.06E-03	4.78E-03	3.40E-03	6.29E-05	1.23E-03	7.85E-04	5.51E-04	3.42E-05	7.75E-04	3.75E-04	2.72E-04
1402	258793.6	4084350	0.000433	7.39E-03	5.01E-03	3.56E-03	4.33E-04	7.39E-03	5.01E-03	3.56E-03	6.59E-05	1.29E-03	8.22E-04	5.76E-04	3.58E-05	8.11E-04	3.92E-04	2.85E-04
1403	258818.6	4084350	0.000457	7.79E-03	5.28E-03	3.75E-03	4.57E-04	7.79E-03	5.28E-03	3.75E-03	6.95E-05	1.36E-03	8.67E-04	6.08E-04	3.77E-05	8.55E-04	4.13E-04	3.00E-04
1404	258843.6	4084350	0.000477	8.14E-03	5.52E-03	3.92E-03	4.77E-04	8.14E-03	5.52E-03	3.92E-03	7.26E-05	1.42E-03	9.06E-04	6.35E-04	3.94E-05	8.93E-04	4.32E-04	3.14E-04
1405	258418.6	4084375	0.000207	3.52E-03	2.39E-03	1.70E-03	2.07E-04	3.52E-03	2.39E-03	1.70E-03	3.14E-05	6.15E-04	3.92E-04	2.75E-04	1.71E-05	3.86E-04	1.87E-04	1.36E-04
1406	258443.6	4084375	0.000217	3.69E-03	2.50E-03	1.78E-03	2.17E-04	3.69E-03	2.50E-03	1.78E-03	3.29E-05	6.45E-04	4.11E-04	2.88E-04	1.79E-05	4.05E-04	1.96E-04	1.42E-04
1407	258468.6	4084375	0.000227	3.87E-03	2.62E-03	1.86E-03	2.27E-04	3.87E-03	2.62E-03	1.86E-03	3.45E-05	6.76E-04	4.30E-04	3.02E-04	1.87E-05	4.25E-04	2.05E-04	1.49E-04
1408	258493.6	4084375	0.000238	4.06E-03	2.75E-03	1.95E-03	2.38E-04	4.06E-03	2.75E-03	1.95E-03	3.62E-05	7.09E-04	4.52E-04	3.16E-04	1.97E-05	4.45E-04	2.15E-04	1.56E-04
1409	258518.6	4084375	0.00025	4.26E-03	2.89E-03	2.05E-03	2.50E-04	4.26E-03	2.89E-03	2.05E-03	3.80E-05	7.44E-04	4.74E-04	3.32E-04	2.06E-05	4.68E-04	2.26E-04	1.64E-04
1410	258543.6	4084375	0.000263	4.48E-03	3.03E-03	2.16E-03	2.63E-04	4.48E-03	3.03E-03	2.16E-03	3.99E-05	7.82E-04	4.98E-04	3.49E-04	2.17E-05	4.91E-04	2.38E-04	1.73E-04
1411	258568.6	4084375	0.000276	4.71E-03	3.19E-03	2.27E-03	2.76E-04	4.71E-03	3.19E-03	2.27E-03	4.20E-05	8.22E-04	5.24E-04	3.67E-04	2.28E-05	5.17E-04	2.50E-04	1.81E-04
1412	258593.6	4084375	0.000291	4.97E-03	3.37E-03	2.39E-03	2.91E-04	4.97E-03	3.37E-03	2.39E-03	4.43E-05	8.68E-04	5.53E-04	3.88E-04	2.41E-05	5.46E-04	2.64E-04	1.92E-04
1413	258618.6	4084375	0.000308	5.25E-03	3.56E-03	2.53E-03	3.08E-04	5.25E-03	3.56E-03	2.53E-03	4.68E-05	9.17E-04	5.85E-04	4.10E-04	2.54E-05	5.77E-04	2.79E-04	2.03E-04
1414	258643.6	4084375	0.000325	5.53E-03	3.75E-03	2.67E-03	3.25E-04	5.53E-03	3.75E-03	2.67E-03	4.94E-05	9.67E-04	6.16E-04	4.32E-04	2.68E-05	6.07E-04	2.94E-04	2.13E-04
1415	258668.6	4084375	0.000342	5.83E-03	3.95E-03	2.81E-03	3.42E-04	5.83E-03	3.95E-03	2.81E-03	5.20E-05	1.02E-03	6.49E-04	4.55E-04	2.82E-05	6.40E-04	3.10E-04	2.25E-04
1416	258693.6	4084375	0.00036	6.14E-03	4.16E-03	2.96E-03	3.60E-04	6.14E-03	4.16E-03	2.96E-03	5.48E-05	1.07E-03	6.84E-04	4.79E-04	2.98E-05	6.74E-04	3.26E-04	2.37E-04
1417	258718.6	4084375	0.000379	6.46E-03	4.38E-03	3.11E-03	3.79E-04	6.46E-03	4.38E-03	3.11E-03	5.76E-05	1.13E-03	7.19E-04	5.04E-04	3.13E-05	7.09E-04	3.43E-04	2.49E-04
1418	258743.6	4084375	0.000399	6.80E-03	4.61E-03	3.27E-03	3.99E-04	6.80E-03	4.61E-03	3.27E-03	6.06E-05	1.19E-03	7.56E-04	5.30E-04	3.29E-05	7.46E-04	3.61E-04	2.62E-04
1419	258768.6	4084375	0.000419	7.15E-03	4.85E-03	3.45E-03	4.19E-04	7.15E-03	4.85E-03	3.45E-03	6.38E-05	1.25E-03	7.96E-04	5.58E-04	3.46E-05	7.85E-04	3.80E-04	2.76E-04
1420	258793.6	4084375	0.000442	7.53E-03	5.11E-03	3.63E-03	4.42E-04	7.53E-03	5.11E-03	3.63E-03	6.72E-05	1.32E-03	8.38E-04	5.88E-04	3.65E-05	8.27E-04	4.00E-04	2.90E-04
1421	258818.6	4084375	0.000467	7.96E-03	5.40E-03	3.83E-03	4.67E-04	7.96E-03	5.40E-03	3.83E-03	7.10E-05	1.39E-03	8.86E-04	6.21E-04	3.85E-05	8.74E-04	4.22E-04	3.07E-04
1422	258843.6	4084375	0.000484	8.24E-03	5.59E-03	3.97E-03	4.84E-04	8.24E-03	5.59E-03	3.97E-03	7.35E-05	1.44E-03	9.18E-04	6.43E-04	3.99E-05	9.05E-04	4.38E-04	3.18E-04
1423	258418.6	4084400	0.000207	3.53E-03	2.39E-03	1.70E-03	2.07E-04	3.53E-03	2.39E-03	1.70E-03	3.15E-05	6.16E-04	3.93E-04	2.75E-04	1.71E-05	3.87E-04	1.87E-04	1.36E-04
1424	258443.6	4084400	0.000217	3.69E-03	2.50E-03	1.78E-03	2.17E-04	3.69E-03	2.50E-03	1.78E-03	3.29E-05	6.45E-04	4.11E-04	2.88E-04	1.79E-05	4.06E-04	1.96E-04	1.42E-04
1425	258468.6	4084400	0.000227	3.87E-03	2.63E-03	1.87E-03	2.27E-04	3.87E-03	2.63E-03	1.87E-03	3.45E-05	6.76E-04	4.31E-04	3.02E-04	1.88E-05	4.25E-04	2.06E-04	1.49E-04
1426	258493.6	4084400	0.000238	4.06E-03	2.75E-03	1.96E-03	2.38E-04	4.06E-03	2.75E-03	1.96E-03	3.62E-05	7.10E-04	4.52E-04	3.17E-04	1.97E-05	4.46E-04	2.16E-04	1.57E-04
1427	258518.6	4084400	0.00025	4.27E-03	2.89E-03	2.06E-03	2.50E-04	4.27E-03	2.89E-03	2.06E-03	3.80E-05	7.45E-04	4.75E-04	3.33E-04	2.07E-05	4.68E-04	2.26E-04	1.64E-04
1428	258543.6	4084400	0.000263	4.48E-03	3.04E-03	2.16E-03	2.63E-04	4.48E-03	3.04E-03	2.16E-03	4.00E-05	7.83E-04	4.99E-04	3.50E-04	2.17E-05	4.92E-04	2.38E-04	1.73E-04
1429	258568.6	4084400	0.000277	4.72E-03	3.20E-03	2.27E-03	2.77E-04	4.72E-03	3.20E-03	2.27E-03	4.21E-05	8.24E-04	5.25E-04	3.68E-04	2.28E-05	5.18E-04	2.50E-04	1.82E-04
1430	258593.6	4084400	0.000292	4.98E-03	3.38E-03	2.40E-03	2.92E-04	4.98E-03	3.38E-03	2.40E-03	4.44E-05	8.70E-04	5.54E-04	3.89E-04	2.41E-05	5.47E-04	2.64E-04	1.92E-04
1431	258618.6	4084400	0.000309	5.26E-03	3.57E-03	2.54E-03	3.09E-04	5.26E-03	3.57E-03	2.54E-03	4.70E-05	9.20E-04	5.86E-04	4.11E-04	2.55E-05	5.78E-04	2.79E-04	2.03E-04
1432	258643.6	4084400	0.000325	5.55E-03	3.76E-03	2.67E-03	3.25E-04	5.55E-03	3.76E-03	2.67E-03	4.95E-05	9.69E-04	6.17E-04	4.33E-04	2.69E-05	6.09E-04	2.95E-04	2.14E-04
1433	258668.6	4084400	0.000343	5.85E-03	3.96E-03	2.82E-03	3.43E-04	5.85E-03	3.96E-03	2.82E-03	5.22E-05	1.02E-03	6.51E-04	4.56E-04	2.83E-05	6.42E-04	3.10E-04	2.25E-04
1434	258693.6	4084400	0.000361	6.16E-03	4.18E-03	2.97E-03	3.61E-04	6.16E-03	4.18E-03	2.97E-03	5.49E-05	1.08E-03	6.86E-04	4.81E-04	2.98E-05	6.76E-04	3.27E-04	2.38E-04
1435	258718.6	4084400	0.00038	6.49E-03	4.40E-03	3.12E-03	3.80E-04	6.49E-03	4.40E-03	3.12E-03	5.78E-05	1.13E-03	7.22E-04	5.06E-04	3.14E-05	7.12E-04	3.44E-04	2.50E-04
1436	258743.6	4084400	0.000402	6.85E-03	4.65E-03	3.30E-03	4.02E-04	6.85E-03	4.65E-03	3.30E-03	6.11E-05	1.20E-03	7.63E-04	5.35E-04	3.32E-05	7.52E-04	3.64E-04	2.64E-04
1437	258768.6	4084400	0.000425	7.25E-03	4.92E-03	3.49E-03	4.25E-04	7.25E-03	4.92E-03	3.49E-03	6.47E-05	1.27E-03	8.07E-04	5.66E-04	3.51E-05	7.96E-04	3.85E-04	2.80E-04
1438	258793.6	4084400	0.000449	7.66E-03	5.19E-03	3.69E-03	4.49E-04	7.66E-03	5.19E-03	3.69E-03	6.83E-05	1.34E-03	8.52E-04	5.97E-04	3.71E-05	8.40E-04	4.06E-04	2.95E-04
1439	258818.6	4084400	0.000475	8.09E-03	5.49E-03	3.90E-03	4.75E-04	8.09E-03	5.49E-03	3.90E-03	7.22E-05	1.41E-03	9.00E-04	6.31E-04	3.92E-05	8.88E-04	4.29E-04	3.12E-04
1440	258843.6	4084400	0.000488	8.31E-03	5.63E-03	4.00E-03	4.88E-04	8.31E-03	5.63E-03	4.00E-03	7.41E-05	1.45E-03	9.25E-04	6.48E-04	4.03E-05	9.12E-04	4.41E-04	3.20E-04
1441	258418.6	4084425	0.000206	3.52E-03	2.38E-03	1.69E-03	2.06E-04	3.52E-03	2.38E-03	1.69E-03	3.14E-05	6.14E-04	3.91E-04	2.74E-04	1.70E-05	3.86E-04	1.87E-04	1.36E-04
1442	258443.6	4084425	0.000216	3.68E-03	2.50E-03	1.77E-03	2.16E-04	3.68E-03	2.50E-03	1.77E-03	3.29E-05	6.43E-04	4.10E-04	2.87E-04	1.78E-05	4.04E-04	1.96E-04	1.42E-04
1443	258468.6	4084425	0.000226	3.86E-03	2.62E-03	1.86E-03	2.26E-04	3.86E-03	2.62E-03	1.86E-03	3.44E-05	6.74E-04	4.30E-04	3.01E-04	1.87E-05	4.24E-04	2.05E-04	1.49E-04
1444	258493.6	4084425	0.000238	4.05E-03	2.75E-03	1.95E-03	2.38E-04	4.05E-03	2.75E-03	1.95E-03	3.61E-05	7.08E-04	4.51E-04	3.16E-04	1.96E-05	4.45E-04	2.15E-04	1.56E-04
1445	258518.6	4084425	0.00025	4.25E-03	2.88E-03	2.05E-03	2.50E-04	4.25E-03	2.88E-03	2.05E-03	3.79E-05	7.43E-04	4.73E-04	3.32E-04	2.06E-05	4.67E-04	2.26E-04	1.64E-04
1446	258543.6	4084425	0.000262	4.47E-03	3.03E-03	2.15E-03	2.62E-04	4.47E-03	3.03E-03	2.15E-03	3.99E-05	7.81E-04	4.98E-04	3.49E-04	2.17E-05	4.91E-04	2.37E-04	1.72E-04
1447	258568.6	4084425	0.000276	4.70E-03	3.19E-03	2.27E-03	2.76E-04	4.70E-03	3.19E-03	2.27E-03	4.19E-05	8.21E-04	5.23E-04	3.67E-04	2.28E-05	5.16E-04	2.50E-04	1.81E-04
1448	258593.6	4084425	0.000291	4.97E-03	3.37E-03	2.39E-03	2.91E-04	4.97E-03	3.37E-03	2.39E-03	4.43E-05	8.68E-04	5.53E-04	3.87E-04	2.41E-05	5.45E-04	2.64E-04	1.92E-04
1449	258618.6	4084425	0.000308	5.25E-03	3.56E-03	2.53E-03	3.08E-04	5.25E-03	3.56E-03	2.53E-03	4.68E-05	9.17E-04	5.84E-04	4.10E-04	2.54E-05	5.76E-04	2.79E-04	2.02E-04
1450	258643.6	4084425	0.000326	5.56E-03	3.77E-03	2.68E-03	3.26E-04	5.56E-03	3.77E-03	2.68E-03	4.96E-05	9.71E-04	6.19E-04	4.34E-04	2.69E-05	6.10E-04	2.95E-04	2.14E-04
1451	258668.6	4084425	0.000344	5.86E-03	3.98E-03	2.83E-03	3.44E-04	5.86E-03	3.98E-03	2.83E-03	5.23E-05	1.02E-03	6.53E-04	4.57E-04	2.84E-05	6.44E-04	3.11E-04	2.26E-04
1452	258693

1467	258618.6	4084450	0.000307	5.24E-03	3.55E-03	2.52E-03	3.07E-04	5.24E-03	3.55E-03	2.52E-03	4.67E-05	9.14E-04	5.83E-04	4.08E-04	2.54E-05	5.75E-04	2.78E-04	2.02E-04
1468	258643.6	4084450	0.000324	5.52E-03	3.74E-03	2.66E-03	3.24E-04	5.52E-03	3.74E-03	2.66E-03	4.92E-05	9.64E-04	6.14E-04	4.31E-04	2.67E-05	6.06E-04	2.93E-04	2.13E-04
1469	258668.6	4084450	0.000342	5.82E-03	3.95E-03	2.81E-03	3.42E-04	5.82E-03	3.95E-03	2.81E-03	5.19E-05	1.02E-03	6.48E-04	4.54E-04	2.82E-05	6.39E-04	3.09E-04	2.25E-04
1470	258693.6	4084450	0.00036	6.14E-03	4.16E-03	2.96E-03	3.60E-04	6.14E-03	4.16E-03	2.96E-03	5.48E-05	1.07E-03	6.84E-04	4.79E-04	2.98E-05	6.74E-04	3.26E-04	2.37E-04
1471	258718.6	4084450	0.000385	6.57E-03	4.45E-03	3.16E-03	3.85E-04	6.57E-03	4.45E-03	3.16E-03	5.86E-05	1.15E-03	7.31E-04	5.12E-04	3.18E-05	7.21E-04	3.49E-04	2.53E-04
1472	258743.6	4084450	0.000412	7.02E-03	4.76E-03	3.38E-03	4.12E-04	7.02E-03	4.76E-03	3.38E-03	6.26E-05	1.23E-03	7.81E-04	5.48E-04	3.40E-05	7.71E-04	3.73E-04	2.71E-04
1473	258768.6	4084450	0.000436	7.44E-03	5.04E-03	3.58E-03	4.36E-04	7.44E-03	5.04E-03	3.58E-03	6.64E-05	1.30E-03	8.28E-04	5.80E-04	3.60E-05	8.17E-04	3.95E-04	2.87E-04
1474	258793.6	4084450	0.000457	7.79E-03	5.28E-03	3.75E-03	4.57E-04	7.79E-03	5.28E-03	3.75E-03	6.95E-05	1.36E-03	8.67E-04	6.08E-04	3.77E-05	8.55E-04	4.14E-04	3.00E-04
1475	258818.6	4084450	0.000474	8.09E-03	5.48E-03	3.90E-03	4.74E-04	8.09E-03	5.48E-03	3.90E-03	7.21E-05	1.41E-03	9.00E-04	6.31E-04	3.92E-05	8.88E-04	4.29E-04	3.12E-04
1476	258843.6	4084450	0.000488	8.32E-03	5.64E-03	4.01E-03	4.88E-04	8.32E-03	5.64E-03	4.01E-03	7.42E-05	1.45E-03	9.26E-04	6.49E-04	4.03E-05	9.14E-04	4.42E-04	3.21E-04
1477	258418.6	4084475	0.000203	3.45E-03	2.34E-03	1.66E-03	2.03E-04	3.45E-03	2.34E-03	1.66E-03	3.08E-05	6.03E-04	3.84E-04	2.69E-04	1.67E-05	3.79E-04	1.83E-04	1.33E-04
1478	258443.6	4084475	0.000213	3.64E-03	2.47E-03	1.75E-03	2.13E-04	3.64E-03	2.47E-03	1.75E-03	3.25E-05	6.36E-04	4.05E-04	2.84E-04	1.76E-05	3.99E-04	1.93E-04	1.40E-04
1479	258468.6	4084475	0.000225	3.83E-03	2.60E-03	1.84E-03	2.25E-04	3.83E-03	2.60E-03	1.84E-03	3.41E-05	6.69E-04	4.26E-04	2.99E-04	1.85E-05	4.20E-04	2.03E-04	1.48E-04
1480	258493.6	4084475	0.000236	4.02E-03	2.72E-03	1.94E-03	2.36E-04	4.02E-03	2.72E-03	1.94E-03	3.58E-05	7.01E-04	4.47E-04	3.13E-04	1.95E-05	4.41E-04	2.13E-04	1.55E-04
1481	258518.6	4084475	0.000247	4.22E-03	2.86E-03	2.03E-03	2.47E-04	4.22E-03	2.86E-03	2.03E-03	3.76E-05	7.37E-04	4.69E-04	3.29E-04	2.04E-05	4.63E-04	2.24E-04	1.63E-04
1482	258543.6	4084475	0.00026	4.43E-03	3.00E-03	2.14E-03	2.60E-04	4.43E-03	3.00E-03	2.14E-03	3.95E-05	7.74E-04	4.93E-04	3.46E-04	2.15E-05	4.86E-04	2.35E-04	1.71E-04
1483	258568.6	4084475	0.000273	4.66E-03	3.16E-03	2.25E-03	2.73E-04	4.66E-03	3.16E-03	2.25E-03	4.16E-05	8.14E-04	5.19E-04	3.64E-04	2.26E-05	5.12E-04	2.47E-04	1.80E-04
1484	258593.6	4084475	0.000288	4.91E-03	3.33E-03	2.36E-03	2.88E-04	4.91E-03	3.33E-03	2.36E-03	4.38E-05	8.57E-04	5.46E-04	3.83E-04	2.38E-05	5.39E-04	2.61E-04	1.89E-04
1485	258618.6	4084475	0.000303	5.17E-03	3.51E-03	2.49E-03	3.03E-04	5.17E-03	3.51E-03	2.49E-03	4.61E-05	9.03E-04	5.76E-04	4.03E-04	2.51E-05	5.68E-04	2.75E-04	1.99E-04
1486	258643.6	4084475	0.00032	5.45E-03	3.70E-03	2.63E-03	3.20E-04	5.45E-03	3.70E-03	2.63E-03	4.86E-05	9.53E-04	6.07E-04	4.25E-04	2.64E-05	5.99E-04	2.89E-04	2.10E-04
1487	258668.6	4084475	0.000337	5.75E-03	3.90E-03	2.77E-03	3.37E-04	5.75E-03	3.90E-03	2.77E-03	5.13E-05	1.00E-03	6.40E-04	4.49E-04	2.79E-05	6.32E-04	3.05E-04	2.22E-04
1488	258693.6	4084475	0.000356	6.07E-03	4.12E-03	2.93E-03	3.56E-04	6.07E-03	4.12E-03	2.93E-03	5.41E-05	1.06E-03	6.76E-04	4.74E-04	2.94E-05	6.66E-04	3.22E-04	2.34E-04
1489	258718.6	4084475	0.000384	6.54E-03	4.43E-03	3.15E-03	3.84E-04	6.54E-03	4.43E-03	3.15E-03	5.83E-05	1.14E-03	7.28E-04	5.10E-04	3.17E-05	7.18E-04	3.47E-04	2.52E-04
1490	258743.6	4084475	0.00041	6.98E-03	4.73E-03	3.36E-03	4.10E-04	6.98E-03	4.73E-03	3.36E-03	6.23E-05	1.22E-03	7.77E-04	5.45E-04	3.38E-05	7.67E-04	3.71E-04	2.69E-04
1491	258768.6	4084475	0.000432	7.36E-03	4.99E-03	3.55E-03	4.32E-04	7.36E-03	4.99E-03	3.55E-03	6.57E-05	1.29E-03	8.19E-04	5.74E-04	3.57E-05	8.08E-04	3.91E-04	2.84E-04
1492	258793.6	4084475	0.000453	7.72E-03	5.23E-03	3.72E-03	4.53E-04	7.72E-03	5.23E-03	3.72E-03	6.89E-05	1.35E-03	8.59E-04	6.02E-04	3.74E-05	8.48E-04	4.10E-04	2.98E-04
1493	258818.6	4084475	0.000471	8.03E-03	5.44E-03	3.87E-03	4.71E-04	8.03E-03	5.44E-03	3.87E-03	7.16E-05	1.40E-03	8.93E-04	6.26E-04	3.89E-05	8.81E-04	4.26E-04	3.09E-04
1494	258843.6	4084475	0.000485	8.27E-03	5.61E-03	3.99E-03	4.85E-04	8.27E-03	5.61E-03	3.99E-03	7.38E-05	1.44E-03	9.21E-04	6.45E-04	4.01E-05	9.08E-04	4.39E-04	3.19E-04
1495	258418.6	4084500	0.000201	3.43E-03	2.33E-03	1.65E-03	2.01E-04	3.43E-03	2.33E-03	1.65E-03	3.06E-05	6.00E-04	3.82E-04	2.68E-04	1.66E-05	3.77E-04	1.82E-04	1.32E-04
1496	258443.6	4084500	0.000212	3.61E-03	2.44E-03	1.74E-03	2.12E-04	3.61E-03	2.44E-03	1.74E-03	3.22E-05	6.30E-04	4.01E-04	2.81E-04	1.75E-05	3.96E-04	1.91E-04	1.39E-04
1497	258468.6	4084500	0.000222	3.78E-03	2.56E-03	1.82E-03	2.22E-04	3.78E-03	2.56E-03	1.82E-03	3.37E-05	6.60E-04	4.20E-04	2.95E-04	1.83E-05	4.15E-04	2.00E-04	1.46E-04
1498	258493.6	4084500	0.000232	3.96E-03	2.68E-03	1.91E-03	2.32E-04	3.96E-03	2.68E-03	1.91E-03	3.53E-05	6.92E-04	4.41E-04	3.09E-04	1.92E-05	4.35E-04	2.10E-04	1.53E-04
1499	258518.6	4084500	0.000244	4.15E-03	2.82E-03	2.00E-03	2.44E-04	4.15E-03	2.82E-03	2.00E-03	3.71E-05	7.26E-04	4.62E-04	3.24E-04	2.01E-05	4.56E-04	2.21E-04	1.60E-04
1500	258543.6	4084500	0.000256	4.36E-03	2.96E-03	2.10E-03	2.56E-04	4.36E-03	2.96E-03	2.10E-03	3.89E-05	7.62E-04	4.86E-04	3.40E-04	2.11E-05	4.79E-04	2.32E-04	1.68E-04
1501	258568.6	4084500	0.000269	4.59E-03	3.11E-03	2.21E-03	2.69E-04	4.59E-03	3.11E-03	2.21E-03	4.09E-05	8.01E-04	5.11E-04	3.58E-04	2.22E-05	5.04E-04	2.44E-04	1.77E-04
1502	258593.6	4084500	0.000283	4.83E-03	3.27E-03	2.33E-03	2.83E-04	4.83E-03	3.27E-03	2.33E-03	4.31E-05	8.43E-04	5.37E-04	3.77E-04	2.34E-05	5.30E-04	2.56E-04	1.86E-04
1503	258618.6	4084500	0.000298	5.09E-03	3.45E-03	2.45E-03	2.98E-04	5.09E-03	3.45E-03	2.45E-03	4.54E-05	8.88E-04	5.66E-04	3.97E-04	2.46E-05	5.58E-04	2.70E-04	1.96E-04
1504	258643.6	4084500	0.000314	5.36E-03	3.63E-03	2.58E-03	3.14E-04	5.36E-03	3.63E-03	2.58E-03	4.78E-05	9.36E-04	5.97E-04	4.18E-04	2.60E-05	5.88E-04	2.85E-04	2.07E-04
1505	258668.6	4084500	0.000332	5.65E-03	3.83E-03	2.72E-03	3.32E-04	5.65E-03	3.83E-03	2.72E-03	5.04E-05	9.88E-04	6.29E-04	4.41E-04	2.74E-05	6.21E-04	3.00E-04	2.18E-04
1506	258693.6	4084500	0.00035	5.97E-03	4.05E-03	2.87E-03	3.50E-04	5.97E-03	4.05E-03	2.87E-03	5.32E-05	1.04E-03	6.64E-04	4.65E-04	2.89E-05	6.55E-04	3.17E-04	2.30E-04
1507	258718.6	4084500	0.000377	6.43E-03	4.36E-03	3.10E-03	3.77E-04	6.43E-03	4.36E-03	3.10E-03	5.73E-05	1.12E-03	7.15E-04	5.01E-04	3.11E-05	7.05E-04	3.41E-04	2.48E-04
1508	258743.6	4084500	0.000403	6.86E-03	4.65E-03	3.31E-03	4.03E-04	6.86E-03	4.65E-03	3.31E-03	6.12E-05	1.20E-03	7.64E-04	5.35E-04	3.32E-05	7.53E-04	3.64E-04	2.65E-04
1509	258768.6	4084500	0.000425	7.24E-03	4.91E-03	3.49E-03	4.25E-04	7.24E-03	4.91E-03	3.49E-03	6.46E-05	1.27E-03	8.06E-04	5.65E-04	3.51E-05	7.95E-04	3.84E-04	2.79E-04
1510	258793.6	4084500	0.000446	7.60E-03	5.16E-03	3.66E-03	4.46E-04	7.60E-03	5.16E-03	3.66E-03	6.78E-05	1.33E-03	8.46E-04	5.93E-04	3.68E-05	8.35E-04	4.04E-04	2.93E-04
1511	258818.6	4084500	0.000465	7.92E-03	5.37E-03	3.82E-03	4.65E-04	7.92E-03	5.37E-03	3.82E-03	7.06E-05	1.38E-03	8.81E-04	6.18E-04	3.84E-05	8.69E-04	4.20E-04	3.05E-04
1512	258843.6	4084500	0.00048	8.18E-03	5.55E-03	3.94E-03	4.80E-04	8.18E-03	5.55E-03	3.94E-03	7.30E-05	1.43E-03	9.10E-04	6.38E-04	3.96E-05	8.98E-04	4.34E-04	3.15E-04
1513	258418.6	4084525	0.000199	3.39E-03	2.30E-03	1.63E-03	1.99E-04	3.39E-03	2.30E-03	1.63E-03	3.03E-05	5.93E-04	3.78E-04	2.65E-04	1.64E-05	3.72E-04	1.80E-04	1.31E-04
1514	258443.6	4084525	0.000208	3.55E-03	2.41E-03	1.71E-03	2.08E-04	3.55E-03	2.41E-03	1.71E-03	3.16E-05	6.20E-04	3.95E-04	2.77E-04	1.72E-05	3.89E-04	1.88E-04	1.37E-04
1515	258468.6	4084525	0.000218	3.71E-03	2.52E-03	1.79E-03	2.18E-04	3.71E-03	2.52E-03	1.79E-03	3.31E-05	6.49E-04	4.13E-04	2.90E-04	1.80E-05	4.08E-04	1.97E-04	1.43E-04
1516	258493.6	4084525	0.000228	3.89E-03	2.64E-03	1.87E-03	2.28E-04	3.89E-03	2.64E-03	1.87E-03	3.47E-05	6.79E-04	4.33E-04	3.03E-04	1.88E-05	4.27E-04	2.06E-04	1.50E-04
1517	258518.6	4084525	0.000239	4.08E-03	2.77E-03	1.97E-03	2.39E-04	4.08E-03	2.77E-03	1.97E-03	3.64E-05	7.12E-04	4.54E-04	3.18E-04	1.98E-05	4.48E-04	2.17E-04	1.57E-04
1518	258543.6	4084525	0.000251	4.28E-03	2.90E-03	2.06E-03	2.51E-04	4.28E-03	2.90E-03	2.06E-03	3.82E-05	7.48E-04	4.76E-04	3.34E-04	2.07E-05	4.70E-04	2.27E-04	1.65E-04
1519	258568.6	4084525	0.000264	4.50E-03	3.05E-03	2.17E-03	2.64E-04	4.50E-03	3.05E-03	2.17E-03	4.01E-05	7.85E-04	5.00E-04	3.51E-04	2.18E-05	4.94E-04	2.39E-04	1.73E-04
1520	258593.6	4084525	0.000277	4.73E-03	3.21E-03	2.28E-03	2.77E-04	4.73E-03	3.21E-03	2.28E-03	4.22E-05	8.26E-04	5.26E-04	3.69E-04	2.29E-05	5.19E-04	2.51E-04	1.82E-04
1521	258618.6	4084525	0.000292	4.98E-03	3.37E-03	2.40E-03	2.92E-04	4.98E-03	3.37E-03	2.40E-03	4.44E-05	8.69E-04	5.54E-04	3.88E-04	2.41E-05	5.46E-04	2.64E-04	1.92E-04
1522	258643.6	4084525	0.000308	5.24E-03	3.56E-03	2.53E-03	3.08E-04	5.24E-03	3.56E-03	2.53E-03	4.68E-05	9.16E-04	5.84E-04	4.09E-04	2.54E-05	5.76E-04	2.78E-04	2.02E-04
1523	258668.6	4084525	0.000324	5.53E-03	3.75E-03	2.66E-03	3.24E-04	5.53E-03	3.75E-03	2.66E-03	4.93E-05	9.66E-04	6.15E-04	4.31E-04	2.68E-05	6.07E-04	2.93E-04	2.13E-04
1524	258693.6	4084525	0.000343	5.85E-03	3.97E-03	2.82E-03	3.43E-04	5.85E-03	3.97E-03	2.82E-03	5.22E-05	1.02E-03	6.51E-04	4.57E-04	2.84E-05	6.43E-04	3.11E-04	2.26E-04
1525	258718.6	4084525	0.000369	6.29E-03	4.26E-03	3.03E-03	3.69E-04	6.29E-03	4.26E-03	3.03E-03	5.61E-05	1.10E-03	7.00E-04	4.91E-04	3.05E-05	6.90E-04	3.34E-04	2.42E-04
1526	258743.6	4084525	0.000393	6.70E-03	4.54E-03	3.23E-03	3.93E-04	6.70E-03	4.54E-03	3.23E-03	5.98E-05	1.17E-03	7.46E-04	5.23E-04	3.25E-05	7.36E-04	3.56E-04	2.58E-04
1527	258768.6	4084525	0.000415	7.08E-03	4.80E-03	3.41E-03	4.15E-04	7.08E-03	4.80E-03	3.41E-03	6.31E-05	1.24E-03	7.88E-04	5.52E-04	3.43E-05	7.77E-04	3.76E-04	2.73E-04
1528	258793.6	4084525	0.000436	7.44E-03	5.04E-03	3.58E-03	4.36E-04	7.44E-03	5.04E-03	3.58E-03	6.64E-05	1.30E-03	8.28E-04	5.80E-04	3.60E-05	8.17E-04	3.95E-04	2.87E-04
1529	258818.6	4084525	0.000456	7.77E-03	5.27E-03	3.74E-03	4.56E-04	7.77E-03	5.27E-03	3.74E-03	6.93E-05	1.36E-03	8.65E-04	6.06E-04	3.76E-05	8.53E-04	4.12E-04	3.00E-04
1530	258843.6	4084525	0.000472	8.04E-03	5.45E-03	3.88E-03	4.72E-04	8.04E-03	5.45E-03	3.88E-03	7.18E-05	1.41E-03	8.95E-04	6.28E-04	3.90E-05	8.83E-04	4.27E-04	3.10E-04
1531	258418.6	4084550	0.000195	3.33E-03	2.26E-03	1.61E-03	1.95E-04	3.33E-03	2.26E-03	1.61E-03	2.97E-05	5.82E-04	3.71E-04	2.60E-04	1.61E-05	3.66E-04	1.77E-04	1.28E-04
1532	258443.6	4084550	0.000204	3.48E-03	2.36E-03	1.68E-03	2.04E-04	3.48E-03	2.36E-03	1.68E-03	3.11E-05	6.08E-04	3.87E-04	2.72E-04	1.69E-05	3.82E-04	1.85E-04	1.34E-04
1533	258468.6	4084550	0.000214	3.64E-03	2.47E-03	1.75E-03	2.14E-04	3.64E-03	2.47E-03	1.75E-03	3.25E-05	6.36E-04	4.05E-04	2.84E-04	1.76E-05	4.00E-04	1.93E-04	1.40E-04
1534	258493.6	4084550	0.000223	3.81E-03	2.58E-03	1.84E-03	2.23E-04	3.81E-03	2.58E-03	1.84E-03	3.40E-05	6.65E-04	4.24E-04	2.97E-04	1.85E-05	4.18E-04	2.02E-04	1.47E-04
1535	258518.6	4084550	0.000234	3.99E-03	2.71E-03	1.92E-03	2.34E-04	3.99E-03	2.71E-03	1.92E-03	3.56E-05	6.97E-04	4.44E-04	3.11E-04	1.93E-05	4.38E-04	2.12E-04	1.54E-04
1536	258543.6	4084550	0.000245	4.18E-03	2.84E-03	2.02E-03	2.45E-04	4.18E-03	2.84E-03	2.02E-03	3.73E-05	7.31E-04	4.66E-04	3.26E-04	2.03E-05	4.59E-04	2.22E-04	1.61E-04
1537	258568.6	4084550	0.000258	4.39E-03	2.98E-03	2.12E-03	2.58E-04	4.39E-03	2.98E-03	2.12E-03	3.92E-05	7.67E-04	4.89E-04	3.43E-04	2.13E-05	4.82E-04	2.33E-04	1.69E-04
1538	258593.6	4084550	0.000271	4.61E-03	3.13E-03	2.22E-03	2.71E-04	4.61E-03	3.13E-03	2.22E-03	4.12E-05	8.06E-04	5.14E-04	3.60E-04	2.23E-05	5.06E-04	2.45E-04	1.78E-04
1539	258618.6	4084550	0.000285	4.85E-03	3.29E-03	2.34E-03	2.85E-04	4.85E-03	3.29E-03	2.34E-03	4.33E-05	8.47E-04	5.40E-04	3.78E-04	2.35E-05	5.33E-04	2.58E-04	1.87E-04
1540	258643.6	4084550	0.0003	5.11E-03	3.46E-03	2.46E-03	3.00E-04	5.11E-03	3.46E-03	2.46E-03	4.55E-05	8.92E-04	5.68E-04	3.98E-04	2.47E-05	5.61E-04	2.71E-04	1.97E-04
1541	258668.6	4084550	0.000316	5.38E-03	3.65E-03	2.59E-03	3.16E-04	5.38E-03	3.65E-03	2.59E-03	4.80E-05	9.40E-04	5.99E-04	4.20E-04	2.61E-05	5.90E-04	2.86E-04	2.07E-04
1542	258693.6	4084550	0.00034	5.80E-03	3.93E-03	2.79E-03	3.40E-04	5.80E-03	3.93E-03	2.79E-03	5.17E-05	1.01E-03	6.45E-04	4.52E-04	2.81E-05	6.37E-04	3.08E-04	2.24E-04
1543	258718.6	4084550	0.000361	6.16E-03	4.17E-03	2.97E-03	3.61E-04	6.16E-03	4.17E-03	2.97E-03	5.49E-05	1.08E-03	6.85E-04	4.80E-04	2.98E-05	6.76E-04	3.27E-04	2.37E-04
1544	258743.6	4084550	0.000382	6.50E-03	4.41E-03	3.13E-03	3.82E-04	6.50E-03	4.41E-03	3.13E-03	5.80E-05	1.14E-03	7.24E-04	5.07E-04	3.15E-05	7.14E-04	3.45E-04	2.51E-04
1545	258768.6	4084550	0.000403	6.87E-03	4.66E-03	3.31E-03	4.03E-04	6.87E-03	4.66E-03	3.31E-03	6.13E-05	1.20E-03	7.64E-04	5.36E-04	3.33E-05	7.54E-04	3.65E-04	2.65E-04
1546	258793.6	4084550	0.000424	7.23E-03	4.90E-03	3.48E-03	4.24E-04	7.23E-03	4.90E-03	3.48E-03	6.45E-05	1.26E-03	8.04E-04	5.64E-04	3.50E-05	7.93E-04	3.84E-04	2.79E-04
1547	258818.6	4084550	0.000444	7.56E-03	5.13E-03	3.64E-03	4.44E-04	7.56E-03	5.13E-03	3.64E-03	6.75E-05	1.32E-03	8.42E-04	5.90E-04	3.66E-05	8.30E-04	4.01E-04	2.92E-04
1548	258843.6	4084550	0.000461	7.86E-03	5.33E-03	3.78E-03	4.61E-04	7.86E-03	5.33E-03	3.78E-03	7.01E-05	1.37E-03	8.74E-04	6.13E-04	3.81E-05	8.62E-04	4.17E-04	3.03E-04
1549	258418.6	4084575	0.000191	3.26E-03	2.21E-03	1.57E-03	1.91E-04	3.26E-03	2.21E-03	1.57E-03	2.91E-05	5.70E-04	3.63E-04	2.55E-04	1.58E-05	3.58E-04	1.73E-04	1.26E-04
1550	258443.6	4084575	0.0002	3.41E-03	2.31E-03	1.64E-03	2.00E-04	3.41E-03	2.31E-03	1.64E-03	3.04E-05	5.95E-04	3.79E-04	2.66E-04	1.65E-05	3.74E-04	1.81E-04	1.31E-04
1551	258468.6	4084575	0.000209	3.56E-03	2.41E-03	1.71E-03	2.09E-04	3.56E-03	2.41E-03	1.71E-03	3.17E-05	6.22E-04	3.96E-04	2.78E-04	1.72E-05	3.91E-04	1.89E-04	1.37E-04
1552	258493.6	4084575	0.000218	3.72E-03	2.52E-03	1.79E-03	2.18E-04	3.72E-03	2.52E-03	1.79E-03	3.32E-05	6.50E-04	4.14E-04	2.90E-04	1.80E-05	4.08E-04	1.98E-04	1.43E-04
1553	258518.6	4084575	0.000228	3.89E-03	2.64E-03	1.88E-03	2.28E-04	3.89E-03	2.64E-03	1.88E-03	3.47E-05	6.80E-04	4.33E-04	3.04E-04	1.89E-05	4.27E-04	2.07E-04	1.50E-04
1554	258543.6	4084575	0.000239	4.08E-03	2.76E-03	1.96E-03	2.39E-04	4.08E-03	2.76E-03	1.96E-03	3.64E-05	7.12E-04	4.54E-04	3.18E-04	1.98E-05	4.48E-04	2.16E-04	1.57E-04
1555	258568.6	4084575	0.000251	4.28E-03	2.90E-03	2.06E-03	2.51E-04	4.28E-03	2.90E-03	2.06E-03	3.81E-05	7.47E-04	4.76E-04	3.33E-04	2.07E-05	4.69E-04	2.27E-04	1.65E-04
1556	258593.6	4084575	0.000263	4.49E-03	3.04E-03	2.16E-03	2.63E-04	4.49E-03	3.04E-03	2.16E-03	4.00E-05	7.83E-04	4.99E-04	3.50E-04	2.17E-05	4.92E-04	2.38E-04	1.73E-04
1557	258618.6	4084575	0.000276	4.71E-03	3.19E-03	2.27E-03	2.76E-04	4.71E-03	3.19E-03	2.27E-03	4.20E-05	8.23E-04	5.24E-04	3.67E-04	2.28E-05	5.17E-04	2.50E-04	1.82E-04
1558	258643.6	4084575	0.00029	4.95E-03	3.36E-03	2.39E-03	2.90E-04	4.95E-03	3.36E-03	2.39E-03	4.42E-05	8.65E-04	5.51E-04	3.86E-04	2.40E-05	5.44E-04	2.63E-04	1.91E-04
1559	258668.6	4084575	0.000306	5.21E-03	3.53E-03	2.51E-03	3.06E-04	5.21E-03	3.53E-03	2.51E-03	4.65E-05	9.10E-04	5.80E-04	4.06E-04	2.52E-05	5.72E-04	2.77E-04	2.01E-04
1560	258693.6	4084575	0.000329	5.61E-03	3.80E-03	2.70E-03	3.29E-04	5.61E-03	3.80E-03	2.70E-03	5.00E-05	9.79E-04	6.24E-04	4.37E-04	2.72E-05	6.15E-04	2.98E-04	2.16E-04
1561	258718.6	4084575	0.000349	5.94E-03	4.03E-03	2.86E-03	3.49E-04	5.94E-03	4.03E-03	2.86E-03	5.30E-05	1.04E-03	6.61E-04	4.64E-04	2.88E-05	6.52E-04	3.15E-04	2.29E-04
1562	258743.6	4084575	0.000368	6.27E-03	4.25E-03	3.02E-03	3.68E-04	6.27E-03	4.25E-03	3.02E-03	5.60E-05	1.10E-03	6.98E-04	4.89E-04	3.04E-05	6.89E-04	3.33E-04	2.42E-04
1563	258768.6	4084575	0.000388	6.62E-03	4.49E-03	3.19E-03	3.88E-04	6.62E-03	4.49E-03	3.19E-03	5.90E-05	1.16E-03	7.37E-04	5.16E-04	3.21E-05	7.27E-04	3.51E-04	2.55E-04
1564	258793.6	4084575	0.000409	6.97E-03	4.72E-03	3.36E-03	4.09E-04	6.97E-03	4.72E-03	3.36E-03	6.22E-05	1.22E-03	7.76E-04	5.44E-04	3.38E-05	7.65E-04	3.70E-04	2.69E-04
1565	258818

1580	258718.6	4084600	0.000335	5.71E-03	3.87E-03	2.75E-03	3.35E-04	5.71E-03	3.87E-03	2.75E-03	5.09E-05	9.97E-04	6.35E-04	4.45E-04	2.76E-05	6.26E-04	3.03E-04	2.20E-04
1581	258743.6	4084600	0.000353	6.01E-03	4.08E-03	2.90E-03	3.53E-04	6.01E-03	4.08E-03	2.90E-03	5.36E-05	1.05E-03	6.69E-04	4.69E-04	2.91E-05	6.60E-04	3.19E-04	2.32E-04
1582	258768.6	4084600	0.000372	6.34E-03	4.30E-03	3.05E-03	3.72E-04	6.34E-03	4.30E-03	3.05E-03	5.65E-05	1.11E-03	7.05E-04	4.94E-04	3.07E-05	6.96E-04	3.36E-04	2.44E-04
1583	258793.6	4084600	0.000391	6.67E-03	4.52E-03	3.21E-03	3.91E-04	6.67E-03	4.52E-03	3.21E-03	5.95E-05	1.16E-03	7.42E-04	5.20E-04	3.23E-05	7.32E-04	3.54E-04	2.57E-04
1584	258818.6	4084600	0.00041	6.99E-03	4.74E-03	3.37E-03	4.10E-04	6.99E-03	4.74E-03	3.37E-03	6.23E-05	1.22E-03	7.78E-04	5.45E-04	3.39E-05	7.67E-04	3.71E-04	2.70E-04
1585	258843.6	4084600	0.000427	7.29E-03	4.94E-03	3.51E-03	4.27E-04	7.29E-03	4.94E-03	3.51E-03	6.50E-05	1.27E-03	8.11E-04	5.69E-04	3.53E-05	8.00E-04	3.87E-04	2.81E-04
1586	258868.6	4084600	0.000443	7.54E-03	5.11E-03	3.63E-03	4.43E-04	7.54E-03	5.11E-03	3.63E-03	6.73E-05	1.32E-03	8.40E-04	5.89E-04	3.65E-05	8.28E-04	4.00E-04	2.91E-04
1587	258418.6	4084625	0.000183	3.11E-03	2.11E-03	1.50E-03	1.83E-04	3.11E-03	2.11E-03	1.50E-03	2.78E-05	5.44E-04	3.46E-04	2.43E-04	1.51E-05	3.42E-04	1.65E-04	1.20E-04
1588	258443.6	4084625	0.00019	3.24E-03	2.20E-03	1.56E-03	1.90E-04	3.24E-03	2.20E-03	1.56E-03	2.89E-05	5.66E-04	3.61E-04	2.53E-04	1.57E-05	3.56E-04	1.72E-04	1.25E-04
1589	258468.6	4084625	0.000198	3.38E-03	2.29E-03	1.63E-03	1.98E-04	3.38E-03	2.29E-03	1.63E-03	3.01E-05	5.90E-04	3.76E-04	2.64E-04	1.64E-05	3.71E-04	1.79E-04	1.30E-04
1590	258493.6	4084625	0.000207	3.52E-03	2.39E-03	1.70E-03	2.07E-04	3.52E-03	2.39E-03	1.70E-03	3.14E-05	6.15E-04	3.92E-04	2.75E-04	1.71E-05	3.87E-04	1.87E-04	1.36E-04
1591	258518.6	4084625	0.000216	3.68E-03	2.49E-03	1.77E-03	2.16E-04	3.68E-03	2.49E-03	1.77E-03	3.28E-05	6.42E-04	4.09E-04	2.87E-04	1.78E-05	4.04E-04	1.95E-04	1.42E-04
1592	258543.6	4084625	0.000225	3.84E-03	2.60E-03	1.85E-03	2.25E-04	3.84E-03	2.60E-03	1.85E-03	3.43E-05	6.71E-04	4.27E-04	3.00E-04	1.86E-05	4.22E-04	2.04E-04	1.48E-04
1593	258568.6	4084625	0.000235	4.01E-03	2.72E-03	1.93E-03	2.35E-04	4.01E-03	2.72E-03	1.93E-03	3.58E-05	7.01E-04	4.47E-04	3.13E-04	1.94E-05	4.41E-04	2.13E-04	1.55E-04
1594	258593.6	4084625	0.000246	4.20E-03	2.85E-03	2.02E-03	2.46E-04	4.20E-03	2.85E-03	2.02E-03	3.75E-05	7.34E-04	4.67E-04	3.28E-04	2.03E-05	4.61E-04	2.23E-04	1.62E-04
1595	258618.6	4084625	0.000258	4.40E-03	2.98E-03	2.12E-03	2.58E-04	4.40E-03	2.98E-03	2.12E-03	3.92E-05	7.68E-04	4.89E-04	3.43E-04	2.13E-05	4.83E-04	2.33E-04	1.70E-04
1596	258643.6	4084625	0.00027	4.61E-03	3.12E-03	2.22E-03	2.70E-04	4.61E-03	3.12E-03	2.22E-03	4.11E-05	8.04E-04	5.13E-04	3.59E-04	2.23E-05	5.05E-04	2.44E-04	1.78E-04
1597	258668.6	4084625	0.000283	4.83E-03	3.27E-03	2.33E-03	2.83E-04	4.83E-03	3.27E-03	2.33E-03	4.31E-05	8.43E-04	5.37E-04	3.77E-04	2.34E-05	5.30E-04	2.56E-04	1.86E-04
1598	258693.6	4084625	0.000303	5.17E-03	3.50E-03	2.49E-03	3.03E-04	5.17E-03	3.50E-03	2.49E-03	4.61E-05	9.03E-04	5.75E-04	4.03E-04	2.50E-05	5.67E-04	2.74E-04	1.99E-04
1599	258718.6	4084625	0.00032	5.46E-03	3.70E-03	2.63E-03	3.20E-04	5.46E-03	3.70E-03	2.63E-03	4.87E-05	9.53E-04	6.07E-04	4.26E-04	2.64E-05	5.99E-04	2.90E-04	2.10E-04
1600	258743.6	4084625	0.000336	5.74E-03	3.89E-03	2.76E-03	3.36E-04	5.74E-03	3.89E-03	2.76E-03	5.12E-05	1.00E-03	6.38E-04	4.47E-04	2.78E-05	6.30E-04	3.04E-04	2.21E-04
1601	258768.6	4084625	0.000354	6.03E-03	4.09E-03	2.91E-03	3.54E-04	6.03E-03	4.09E-03	2.91E-03	5.38E-05	1.05E-03	6.71E-04	4.70E-04	2.92E-05	6.62E-04	3.20E-04	2.33E-04
1602	258793.6	4084625	0.000372	6.33E-03	4.29E-03	3.05E-03	3.72E-04	6.33E-03	4.29E-03	3.05E-03	5.65E-05	1.11E-03	7.05E-04	4.94E-04	3.07E-05	6.95E-04	3.36E-04	2.44E-04
1603	258818.6	4084625	0.000389	6.64E-03	4.50E-03	3.20E-03	3.89E-04	6.64E-03	4.50E-03	3.20E-03	5.92E-05	1.16E-03	7.39E-04	5.18E-04	3.22E-05	7.29E-04	3.52E-04	2.56E-04
1604	258843.6	4084625	0.000406	6.92E-03	4.69E-03	3.34E-03	4.06E-04	6.92E-03	4.69E-03	3.34E-03	6.18E-05	1.21E-03	7.71E-04	5.40E-04	3.35E-05	7.60E-04	3.68E-04	2.67E-04
1605	258868.6	4084625	0.000421	7.17E-03	4.86E-03	3.46E-03	4.21E-04	7.17E-03	4.86E-03	3.46E-03	6.40E-05	1.25E-03	7.98E-04	5.60E-04	3.48E-05	7.88E-04	3.81E-04	2.77E-04
1606	258893.6	4084625	0.000433	7.38E-03	5.00E-03	3.56E-03	4.33E-04	7.38E-03	5.00E-03	3.56E-03	6.58E-05	1.29E-03	8.21E-04	5.76E-04	3.58E-05	8.10E-04	3.92E-04	2.85E-04
1607	258418.6	4084650	0.000178	3.03E-03	2.05E-03	1.46E-03	1.78E-04	3.03E-03	2.05E-03	1.46E-03	2.70E-05	5.29E-04	3.37E-04	2.36E-04	1.47E-05	3.32E-04	1.61E-04	1.17E-04
1608	258443.6	4084650	0.000185	3.15E-03	2.14E-03	1.52E-03	1.85E-04	3.15E-03	2.14E-03	1.52E-03	2.81E-05	5.50E-04	3.51E-04	2.46E-04	1.53E-05	3.46E-04	1.67E-04	1.22E-04
1609	258468.6	4084650	0.000192	3.28E-03	2.22E-03	1.58E-03	1.92E-04	3.28E-03	2.22E-03	1.58E-03	2.93E-05	5.73E-04	3.65E-04	2.56E-04	1.59E-05	3.60E-04	1.74E-04	1.26E-04
1610	258493.6	4084650	0.0002	3.42E-03	2.32E-03	1.65E-03	2.00E-04	3.42E-03	2.32E-03	1.65E-03	3.05E-05	5.97E-04	3.80E-04	2.67E-04	1.65E-05	3.75E-04	1.81E-04	1.32E-04
1611	258518.6	4084650	0.000209	3.56E-03	2.41E-03	1.72E-03	2.09E-04	3.56E-03	2.41E-03	1.72E-03	3.18E-05	6.22E-04	3.96E-04	2.78E-04	1.72E-05	3.91E-04	1.89E-04	1.37E-04
1612	258543.6	4084650	0.000218	3.71E-03	2.52E-03	1.79E-03	2.18E-04	3.71E-03	2.52E-03	1.79E-03	3.31E-05	6.49E-04	4.13E-04	2.90E-04	1.80E-05	4.08E-04	1.97E-04	1.43E-04
1613	258568.6	4084650	0.000227	3.88E-03	2.63E-03	1.87E-03	2.27E-04	3.88E-03	2.63E-03	1.87E-03	3.46E-05	6.77E-04	4.31E-04	3.02E-04	1.88E-05	4.25E-04	2.06E-04	1.49E-04
1614	258593.6	4084650	0.000237	4.05E-03	2.74E-03	1.95E-03	2.37E-04	4.05E-03	2.74E-03	1.95E-03	3.61E-05	7.07E-04	4.50E-04	3.16E-04	1.96E-05	4.44E-04	2.15E-04	1.56E-04
1615	258618.6	4084650	0.000248	4.23E-03	2.87E-03	2.04E-03	2.48E-04	4.23E-03	2.87E-03	2.04E-03	3.77E-05	7.39E-04	4.71E-04	3.30E-04	2.05E-05	4.64E-04	2.24E-04	1.63E-04
1616	258643.6	4084650	0.00026	4.43E-03	3.00E-03	2.13E-03	2.60E-04	4.43E-03	3.00E-03	2.13E-03	3.95E-05	7.73E-04	4.92E-04	3.45E-04	2.14E-05	4.86E-04	2.35E-04	1.71E-04
1617	258668.6	4084650	0.000273	4.66E-03	3.16E-03	2.24E-03	2.73E-04	4.66E-03	3.16E-03	2.24E-03	4.15E-05	8.14E-04	5.18E-04	3.63E-04	2.26E-05	5.11E-04	2.47E-04	1.80E-04
1618	258693.6	4084650	0.00029	4.94E-03	3.35E-03	2.38E-03	2.90E-04	4.94E-03	3.35E-03	2.38E-03	4.41E-05	8.63E-04	5.50E-04	3.86E-04	2.39E-05	5.43E-04	2.62E-04	1.91E-04
1619	258718.6	4084650	0.000305	5.19E-03	3.52E-03	2.50E-03	3.05E-04	5.19E-03	3.52E-03	2.50E-03	4.63E-05	9.07E-04	5.78E-04	4.05E-04	2.52E-05	5.70E-04	2.76E-04	2.00E-04
1620	258743.6	4084650	0.000319	5.45E-03	3.69E-03	2.62E-03	3.19E-04	5.45E-03	3.69E-03	2.62E-03	4.86E-05	9.51E-04	6.06E-04	4.25E-04	2.64E-05	5.98E-04	2.89E-04	2.10E-04
1621	258768.6	4084650	0.000335	5.71E-03	3.87E-03	2.75E-03	3.35E-04	5.71E-03	3.87E-03	2.75E-03	5.09E-05	9.98E-04	6.36E-04	4.46E-04	2.77E-05	6.27E-04	3.03E-04	2.20E-04
1622	258793.6	4084650	0.000351	5.98E-03	4.06E-03	2.88E-03	3.51E-04	5.98E-03	4.06E-03	2.88E-03	5.34E-05	1.05E-03	6.66E-04	4.67E-04	2.90E-05	6.57E-04	3.18E-04	2.31E-04
1623	258818.6	4084650	0.000367	6.26E-03	4.24E-03	3.02E-03	3.67E-04	6.26E-03	4.24E-03	3.02E-03	5.58E-05	1.09E-03	6.97E-04	4.88E-04	3.03E-05	6.87E-04	3.32E-04	2.41E-04
1624	258843.6	4084650	0.000383	6.53E-03	4.43E-03	3.14E-03	3.83E-04	6.53E-03	4.43E-03	3.14E-03	5.82E-05	1.14E-03	7.26E-04	5.09E-04	3.16E-05	7.17E-04	3.46E-04	2.52E-04
1625	258868.6	4084650	0.000397	6.77E-03	4.59E-03	3.26E-03	3.97E-04	6.77E-03	4.59E-03	3.26E-03	6.03E-05	1.18E-03	7.53E-04	5.28E-04	3.28E-05	7.43E-04	3.59E-04	2.61E-04
1626	258893.6	4084650	0.000409	6.97E-03	4.72E-03	3.36E-03	4.09E-04	6.97E-03	4.72E-03	3.36E-03	6.22E-05	1.22E-03	7.76E-04	5.44E-04	3.38E-05	7.65E-04	3.70E-04	2.69E-04
1627	258418.6	4084675	0.000173	2.94E-03	1.99E-03	1.42E-03	1.73E-04	2.94E-03	1.99E-03	1.42E-03	2.62E-05	5.14E-04	3.27E-04	2.30E-04	1.43E-05	3.23E-04	1.56E-04	1.13E-04
1628	258443.6	4084675	0.000179	3.06E-03	2.07E-03	1.47E-03	1.79E-04	3.06E-03	2.07E-03	1.47E-03	2.73E-05	5.34E-04	3.40E-04	2.39E-04	1.48E-05	3.36E-04	1.62E-04	1.18E-04
1629	258468.6	4084675	0.000186	3.18E-03	2.16E-03	1.53E-03	1.86E-04	3.18E-03	2.16E-03	1.53E-03	2.84E-05	5.55E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
1630	258493.6	4084675	0.000194	3.31E-03	2.24E-03	1.59E-03	1.94E-04	3.31E-03	2.24E-03	1.59E-03	2.95E-05	5.78E-04	3.68E-04	2.58E-04	1.60E-05	3.63E-04	1.76E-04	1.27E-04
1631	258518.6	4084675	0.000202	3.44E-03	2.33E-03	1.66E-03	2.02E-04	3.44E-03	2.33E-03	1.66E-03	3.07E-05	6.01E-04	3.83E-04	2.68E-04	1.67E-05	3.78E-04	1.83E-04	1.33E-04
1632	258543.6	4084675	0.00021	3.58E-03	2.43E-03	1.73E-03	2.10E-04	3.58E-03	2.43E-03	1.73E-03	3.20E-05	6.26E-04	3.99E-04	2.80E-04	1.74E-05	3.93E-04	1.90E-04	1.38E-04
1633	258568.6	4084675	0.000219	3.73E-03	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.33E-05	6.52E-04	4.15E-04	2.91E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
1634	258593.6	4084675	0.000228	3.89E-03	2.64E-03	1.87E-03	2.28E-04	3.89E-03	2.64E-03	1.87E-03	3.47E-05	6.80E-04	4.33E-04	3.04E-04	1.88E-05	4.27E-04	2.07E-04	1.50E-04
1635	258618.6	4084675	0.000238	4.06E-03	2.75E-03	1.95E-03	2.38E-04	4.06E-03	2.75E-03	1.95E-03	3.62E-05	7.09E-04	4.52E-04	3.17E-04	1.97E-05	4.45E-04	2.15E-04	1.56E-04
1636	258643.6	4084675	0.000249	4.25E-03	2.88E-03	2.05E-03	2.49E-04	4.25E-03	2.88E-03	2.05E-03	3.79E-05	7.42E-04	4.73E-04	3.31E-04	2.06E-05	4.66E-04	2.25E-04	1.64E-04
1637	258668.6	4084675	0.000265	4.51E-03	3.06E-03	2.18E-03	2.65E-04	4.51E-03	3.06E-03	2.18E-03	4.03E-05	7.88E-04	5.02E-04	3.52E-04	2.19E-05	4.96E-04	2.40E-04	1.74E-04
1638	258693.6	4084675	0.000277	4.72E-03	3.20E-03	2.27E-03	2.77E-04	4.72E-03	3.20E-03	2.27E-03	4.21E-05	8.24E-04	5.25E-04	3.68E-04	2.29E-05	5.18E-04	2.50E-04	1.82E-04
1639	258718.6	4084675	0.000289	4.93E-03	3.34E-03	2.38E-03	2.89E-04	4.93E-03	3.34E-03	2.38E-03	4.40E-05	8.62E-04	5.49E-04	3.85E-04	2.39E-05	5.41E-04	2.62E-04	1.90E-04
1640	258743.6	4084675	0.000302	5.16E-03	3.50E-03	2.48E-03	3.02E-04	5.16E-03	3.50E-03	2.48E-03	4.60E-05	9.01E-04	5.74E-04	4.02E-04	2.50E-05	5.66E-04	2.74E-04	1.99E-04
1641	258768.6	4084675	0.000316	5.39E-03	3.65E-03	2.60E-03	3.16E-04	5.39E-03	3.65E-03	2.60E-03	4.81E-05	9.42E-04	6.00E-04	4.21E-04	2.61E-05	5.92E-04	2.86E-04	2.08E-04
1642	258793.6	4084675	0.00033	5.63E-03	3.82E-03	2.71E-03	3.30E-04	5.63E-03	3.82E-03	2.71E-03	5.02E-05	9.84E-04	6.27E-04	4.39E-04	2.73E-05	6.18E-04	2.99E-04	2.17E-04
1643	258818.6	4084675	0.000345	5.88E-03	3.99E-03	2.83E-03	3.45E-04	5.88E-03	3.99E-03	2.83E-03	5.24E-05	1.03E-03	6.54E-04	4.59E-04	2.85E-05	6.45E-04	3.12E-04	2.27E-04
1644	258843.6	4084675	0.000359	6.12E-03	4.15E-03	2.95E-03	3.59E-04	6.12E-03	4.15E-03	2.95E-03	5.46E-05	1.07E-03	6.81E-04	4.77E-04	2.96E-05	6.72E-04	3.25E-04	2.36E-04
1645	258868.6	4084675	0.000372	6.34E-03	4.30E-03	3.05E-03	3.72E-04	6.34E-03	4.30E-03	3.05E-03	5.66E-05	1.11E-03	7.06E-04	4.95E-04	3.07E-05	6.96E-04	3.37E-04	2.44E-04
1646	258893.6	4084675	0.000383	6.54E-03	4.43E-03	3.15E-03	3.83E-04	6.54E-03	4.43E-03	3.15E-03	5.83E-05	1.14E-03	7.28E-04	5.10E-04	3.17E-05	7.18E-04	3.47E-04	2.52E-04
1647	258418.6	4084700	0.000167	2.85E-03	1.93E-03	1.37E-03	1.67E-04	2.85E-03	1.93E-03	1.37E-03	2.55E-05	4.98E-04	3.18E-04	2.23E-04	1.38E-05	3.13E-04	1.51E-04	1.10E-04
1648	258443.6	4084700	0.000174	2.96E-03	2.01E-03	1.43E-03	1.74E-04	2.96E-03	2.01E-03	1.43E-03	2.64E-05	5.17E-04	3.30E-04	2.31E-04	1.43E-05	3.25E-04	1.57E-04	1.14E-04
1649	258468.6	4084700	0.00018	3.07E-03	2.08E-03	1.48E-03	1.80E-04	3.07E-03	2.08E-03	1.48E-03	2.74E-05	5.37E-04	3.42E-04	2.40E-04	1.49E-05	3.38E-04	1.63E-04	1.19E-04
1650	258493.6	4084700	0.000187	3.19E-03	2.17E-03	1.54E-03	1.87E-04	3.19E-03	2.17E-03	1.54E-03	2.85E-05	5.58E-04	3.55E-04	2.49E-04	1.55E-05	3.51E-04	1.70E-04	1.23E-04
1651	258518.6	4084700	0.000195	3.32E-03	2.25E-03	1.60E-03	1.95E-04	3.32E-03	2.25E-03	1.60E-03	2.96E-05	5.80E-04	3.69E-04	2.59E-04	1.61E-05	3.64E-04	1.76E-04	1.28E-04
1652	258543.6	4084700	0.000202	3.45E-03	2.34E-03	1.66E-03	2.02E-04	3.45E-03	2.34E-03	1.66E-03	3.08E-05	6.03E-04	3.84E-04	2.69E-04	1.67E-05	3.79E-04	1.83E-04	1.33E-04
1653	258568.6	4084700	0.00021	3.59E-03	2.43E-03	1.73E-03	2.10E-04	3.59E-03	2.43E-03	1.73E-03	3.20E-05	6.27E-04	3.99E-04	2.80E-04	1.74E-05	3.94E-04	1.90E-04	1.38E-04
1654	258593.6	4084700	0.000219	3.73E-03	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.33E-05	6.52E-04	4.15E-04	2.91E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
1655	258618.6	4084700	0.000228	3.89E-03	2.63E-03	1.87E-03	2.28E-04	3.89E-03	2.63E-03	1.87E-03	3.47E-05	6.79E-04	4.32E-04	3.03E-04	1.88E-05	4.26E-04	2.06E-04	1.50E-04
1656	258643.6	4084700	0.000238	4.06E-03	2.75E-03	1.95E-03	2.38E-04	4.06E-03	2.75E-03	1.95E-03	3.62E-05	7.09E-04	4.52E-04	3.17E-04	1.97E-05	4.45E-04	2.15E-04	1.56E-04
1657	258668.6	4084700	0.000252	4.30E-03	2.92E-03	2.07E-03	2.52E-04	4.30E-03	2.92E-03	2.07E-03	3.84E-05	7.51E-04	4.79E-04	3.35E-04	2.08E-05	4.72E-04	2.28E-04	1.66E-04
1658	258693.6	4084700	0.000263	4.48E-03	3.04E-03	2.16E-03	2.63E-04	4.48E-03	3.04E-03	2.16E-03	4.00E-05	7.83E-04	4.99E-04	3.50E-04	2.17E-05	4.92E-04	2.38E-04	1.73E-04
1659	258718.6	4084700	0.000274	4.67E-03	3.17E-03	2.25E-03	2.74E-04	4.67E-03	3.17E-03	2.25E-03	4.17E-05	8.16E-04	5.20E-04	3.65E-04	2.26E-05	5.13E-04	2.48E-04	1.80E-04
1660	258743.6	4084700	0.000286	4.87E-03	3.30E-03	2.35E-03	2.86E-04	4.87E-03	3.30E-03	2.35E-03	4.35E-05	8.51E-04	5.42E-04	3.80E-04	2.36E-05	5.35E-04	2.59E-04	1.88E-04
1661	258768.6	4084700	0.000298	5.08E-03	3.44E-03	2.45E-03	2.98E-04	5.08E-03	3.44E-03	2.45E-03	4.53E-05	8.87E-04	5.65E-04	3.96E-04	2.46E-05	5.57E-04	2.70E-04	1.96E-04
1662	258793.6	4084700	0.00031	5.29E-03	3.59E-03	2.55E-03	3.10E-04	5.29E-03	3.59E-03	2.55E-03	4.72E-05	9.24E-04	5.89E-04	4.13E-04	2.56E-05	5.81E-04	2.81E-04	2.04E-04
1663	258818.6	4084700	0.000323	5.51E-03	3.73E-03	2.65E-03	3.23E-04	5.51E-03	3.73E-03	2.65E-03	4.91E-05	9.62E-04	6.13E-04	4.30E-04	2.67E-05	6.05E-04	2.92E-04	2.12E-04
1664	258843.6	4084700	0.000336	5.72E-03	3.88E-03	2.76E-03	3.36E-04	5.72E-03	3.88E-03	2.76E-03	5.10E-05	9.99E-04	6.37E-04	4.46E-04	2.77E-05	6.28E-04	3.04E-04	2.21E-04
1665	258868.6	4084700	0.000347	5.92E-03	4.01E-03	2.85E-03	3.47E-04	5.92E-03	4.01E-03	2.85E-03	5.28E-05	1.03E-03	6.59E-04	4.62E-04	2.87E-05	6.50E-04	3.14E-04	2.28E-04
1666	258893.6	4084700	0.000358	6.11E-03	4.14E-03	2.94E-03	3.58E-04	6.11E-03	4.14E-03	2.94E-03	5.45E-05	1.07E-03	6.80E-04	4.77E-04	2.96E-05	6.71E-04	3.24E-04	2.36E-04
1667	258418.6	4084725	0.000162	2.76E-03	1.87E-03	1.33E-03	1.62E-04	2.76E-03	1.87E-03	1.33E-03	2.46E-05	4.83E-04	3.07E-04	2.16E-04	1.34E-05	3.03E-04	1.47E-04	1.07E-04
1668	258443.6	4084725	0.000168	2.86E-03	1.94E-03	1.38E-03	1.68E-04	2.86E-03	1.94E-03	1.38E-03	2.55E-05	5.00E-04	3.19E-04	2.23E-04	1.39E-05	3.14E-04	1.52E-04	1.10E-04
1669	258468.6	4084725	0.000174	2.97E-03	2.01E-03	1.43E-03	1.74E-04	2.97E-03	2.01E-03	1.43E-03	2.65E-05	5.19E-04	3.30E-04	2.32E-04	1.44E-05	3.26E-04	1.58E-04	1.14E-04
1670	258493.6	4084725	0.000181	3.08E-03	2.09E-03	1.48E-03	1.81E-04	3.08E-03	2.09E-03	1.48E-03	2.75E-05	5.38E-04	3.43E-04	2.40E-04	1.49E-05	3.38E-04	1.63E-04	1.19E-04
1671	258518.6	4084725	0.000187	3.19E-03	2.17E-03	1.54E-03	1.87E-04	3.19E-03	2.17E-03	1.54E-03	2.85E-05	5.58E-04	3.56E-04	2.49E-04	1.55E-05	3.51E-04	1.70E-04	1.23E-04
1672	258543.6	4084725	0.000195	3.32E-03	2.25E-03	1.60E-03	1.95E-04	3.32E-03	2.25E-03	1.60E-03	2.96E-05	5.79E-04	3.69E-04	2.59E-04	1.61E-05	3.64E-04	1.76E-04	1.28E-04
1673	258568.6	4084725	0.000202	3.44E-03	2.33E-03	1.66E-03	2.02E-04	3.44E-03	2.33E-03	1.66E-03	3.07E-05	6.01E-04	3.83E-04	2.69E-04	1.67E-05	3.78E-04	1.83E-04	1.33E-04
1674	258593.6	4084725	0.00021	3.58E-03	2.42E-03	1.72E-03	2.10E-04	3.58E-03	2.42E-03	1.72E-03	3.19E-05	6.24E-04	3.98E-04	2.79E-04	1.73E-05	3.92E-04	1.90E-04	1.38E-04
1675	258618.6	4084725	0.000219	3.73E-03	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.33E-05	6.52E-04	4.15E-04	2.91E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
1676	258643.6	4084725	0.00023	3.92E-03	2.66E-03	1.89E-03	2.30E-04	3.92E-03	2.66E-03	1.89E-03	3.50E-05	6.85E-04	4.37E-04	3.06E-04	1.90E-05	4.31E-04	2.08E-04	1.51E-04
1677	258668.6	4084725	0.00024	4.09E-03	2.77E-03	1.97E-03	2.40E-04	4.09E-03	2.77E-03	1.97E-03	3.65E-05	7.14E-04	4.55E-04	3.19E-04	1.98E-05	4.49E-04	2.17E-04	1.58E-04

1693	258543.6	4084750	0.000187	3.18E-03	2.16E-03	1.53E-03		1.87E-04	3.18E-03	2.16E-03	1.53E-03		2.84E-05	5.56E-04	3.54E-04	2.48E-04		1.54E-05	3.49E-04	1.69E-04	1.23E-04
1694	258568.6	4084750	0.000195	3.32E-03	2.25E-03	1.60E-03		1.95E-04	3.32E-03	2.25E-03	1.60E-03		2.96E-05	5.80E-04	3.70E-04	2.59E-04		1.61E-05	3.65E-04	1.76E-04	1.28E-04
1695	258593.6	4084750	0.000203	3.46E-03	2.34E-03	1.67E-03		2.03E-04	3.46E-03	2.34E-03	1.67E-03		3.08E-05	6.04E-04	3.85E-04	2.70E-04		1.67E-05	3.79E-04	1.83E-04	1.33E-04
1696	258618.6	4084750	0.000211	3.59E-03	2.44E-03	1.73E-03		2.11E-04	3.59E-03	2.44E-03	1.73E-03		3.20E-05	6.27E-04	4.00E-04	2.80E-04		1.74E-05	3.94E-04	1.91E-04	1.39E-04
1697	258643.6	4084750	0.00022	3.74E-03	2.54E-03	1.80E-03		2.20E-04	3.74E-03	2.54E-03	1.80E-03		3.34E-05	6.54E-04	4.17E-04	2.92E-04		1.81E-05	4.11E-04	1.99E-04	1.44E-04
1698	258668.6	4084750	0.000228	3.88E-03	2.63E-03	1.87E-03		2.28E-04	3.88E-03	2.63E-03	1.87E-03		3.46E-05	6.78E-04	4.32E-04	3.03E-04		1.88E-05	4.26E-04	2.06E-04	1.50E-04
1699	258693.6	4084750	0.000236	4.03E-03	2.73E-03	1.94E-03		2.36E-04	4.03E-03	2.73E-03	1.94E-03		3.59E-05	7.04E-04	4.48E-04	3.14E-04		1.95E-05	4.42E-04	2.14E-04	1.55E-04
1700	258718.6	4084750	0.000245	4.18E-03	2.83E-03	2.01E-03		2.45E-04	4.18E-03	2.83E-03	2.01E-03		3.73E-05	7.30E-04	4.65E-04	3.26E-04		2.02E-05	4.59E-04	2.22E-04	1.61E-04
1701	258743.6	4084750	0.000254	4.33E-03	2.94E-03	2.09E-03		2.54E-04	4.33E-03	2.94E-03	2.09E-03		3.87E-05	7.57E-04	4.82E-04	3.38E-04		2.10E-05	4.76E-04	2.30E-04	1.67E-04
1702	258768.6	4084750	0.000264	4.49E-03	3.05E-03	2.16E-03		2.64E-04	4.49E-03	3.05E-03	2.16E-03		4.01E-05	7.85E-04	5.00E-04	3.51E-04		2.18E-05	4.93E-04	2.39E-04	1.73E-04
1703	258793.6	4084750	0.000273	4.65E-03	3.16E-03	2.24E-03		2.73E-04	4.65E-03	3.16E-03	2.24E-03		4.15E-05	8.13E-04	5.18E-04	3.63E-04		2.25E-05	5.11E-04	2.47E-04	1.79E-04
1704	258818.6	4084750	0.000283	4.82E-03	3.27E-03	2.32E-03		2.83E-04	4.82E-03	3.27E-03	2.32E-03		4.30E-05	8.41E-04	5.36E-04	3.76E-04		2.33E-05	5.29E-04	2.56E-04	1.86E-04
1705	258843.6	4084750	0.000292	4.98E-03	3.37E-03	2.40E-03		2.92E-04	4.98E-03	3.37E-03	2.40E-03		4.44E-05	8.69E-04	5.54E-04	3.88E-04		2.41E-05	5.46E-04	2.64E-04	1.92E-04
1706	258868.6	4084750	0.000301	5.13E-03	3.48E-03	2.47E-03		3.01E-04	5.13E-03	3.48E-03	2.47E-03		4.58E-05	8.96E-04	5.71E-04	4.00E-04		2.49E-05	5.63E-04	2.72E-04	1.98E-04
1707	258893.6	4084750	0.000309	5.27E-03	3.58E-03	2.54E-03		3.09E-04	5.27E-03	3.58E-03	2.54E-03		4.70E-05	9.21E-04	5.87E-04	4.11E-04		2.55E-05	5.79E-04	2.80E-04	2.03E-04
1708	258418.6	4084775	0.000151	2.58E-03	1.75E-03	1.24E-03		1.51E-04	2.58E-03	1.75E-03	1.24E-03		2.30E-05	4.50E-04	2.87E-04	2.01E-04		1.25E-05	2.83E-04	1.37E-04	9.93E-05
1709	258443.6	4084775	0.000156	2.66E-03	1.81E-03	1.28E-03		1.56E-04	2.66E-03	1.81E-03	1.28E-03		2.37E-05	4.65E-04	2.96E-04	2.08E-04		1.29E-05	2.92E-04	1.41E-04	1.03E-04
1710	258468.6	4084775	0.000161	2.75E-03	1.87E-03	1.33E-03		1.61E-04	2.75E-03	1.87E-03	1.33E-03		2.46E-05	4.81E-04	3.06E-04	2.15E-04		1.33E-05	3.02E-04	1.46E-04	1.06E-04
1711	258493.6	4084775	0.000167	2.85E-03	1.93E-03	1.37E-03		1.67E-04	2.85E-03	1.93E-03	1.37E-03		2.54E-05	4.97E-04	3.17E-04	2.22E-04		1.38E-05	3.12E-04	1.51E-04	1.10E-04
1712	258518.6	4084775	0.000173	2.94E-03	2.00E-03	1.42E-03		1.73E-04	2.94E-03	2.00E-03	1.42E-03		2.63E-05	5.14E-04	3.28E-04	2.30E-04		1.43E-05	3.23E-04	1.56E-04	1.14E-04
1713	258543.6	4084775	0.00018	3.07E-03	2.08E-03	1.48E-03		1.80E-04	3.07E-03	2.08E-03	1.48E-03		2.73E-05	5.35E-04	3.41E-04	2.39E-04		1.49E-05	3.37E-04	1.63E-04	1.18E-04
1714	258568.6	4084775	0.000187	3.19E-03	2.17E-03	1.54E-03		1.87E-04	3.19E-03	2.17E-03	1.54E-03		2.85E-05	5.58E-04	3.55E-04	2.49E-04		1.55E-05	3.51E-04	1.70E-04	1.23E-04
1715	258593.6	4084775	0.000194	3.32E-03	2.25E-03	1.60E-03		1.94E-04	3.32E-03	2.25E-03	1.60E-03		2.96E-05	5.79E-04	3.69E-04	2.59E-04		1.61E-05	3.64E-04	1.76E-04	1.28E-04
1716	258618.6	4084775	0.000201	3.43E-03	2.33E-03	1.65E-03		2.01E-04	3.43E-03	2.33E-03	1.65E-03		3.06E-05	6.00E-04	3.82E-04	2.68E-04		1.66E-05	3.77E-04	1.82E-04	1.32E-04
1717	258643.6	4084775	0.000209	3.56E-03	2.41E-03	1.71E-03		2.09E-04	3.56E-03	2.41E-03	1.71E-03		3.17E-05	6.21E-04	3.96E-04	2.77E-04		1.72E-05	3.90E-04	1.89E-04	1.37E-04
1718	258668.6	4084775	0.000216	3.68E-03	2.50E-03	1.77E-03		2.16E-04	3.68E-03	2.50E-03	1.77E-03		3.28E-05	6.43E-04	4.10E-04	2.87E-04		1.78E-05	4.04E-04	1.95E-04	1.42E-04
1719	258693.6	4084775	0.000224	3.81E-03	2.58E-03	1.84E-03		2.24E-04	3.81E-03	2.58E-03	1.84E-03		3.40E-05	6.66E-04	4.24E-04	2.97E-04		1.85E-05	4.18E-04	2.02E-04	1.47E-04
1720	258718.6	4084775	0.000231	3.95E-03	2.67E-03	1.90E-03		2.31E-04	3.95E-03	2.67E-03	1.90E-03		3.52E-05	6.89E-04	4.39E-04	3.08E-04		1.91E-05	4.33E-04	2.09E-04	1.52E-04
1721	258743.6	4084775	0.000239	4.08E-03	2.77E-03	1.97E-03		2.39E-04	4.08E-03	2.77E-03	1.97E-03		3.64E-05	7.13E-04	4.54E-04	3.18E-04		1.98E-05	4.48E-04	2.17E-04	1.57E-04
1722	258768.6	4084775	0.000248	4.22E-03	2.86E-03	2.03E-03		2.48E-04	4.22E-03	2.86E-03	2.03E-03		3.76E-05	7.37E-04	4.70E-04	3.29E-04		2.04E-05	4.63E-04	2.24E-04	1.63E-04
1723	258793.6	4084775	0.000256	4.36E-03	2.96E-03	2.10E-03		2.56E-04	4.36E-03	2.96E-03	2.10E-03		3.89E-05	7.62E-04	4.85E-04	3.40E-04		2.11E-05	4.79E-04	2.31E-04	1.68E-04
1724	258818.6	4084775	0.000264	4.50E-03	3.05E-03	2.17E-03		2.64E-04	4.50E-03	3.05E-03	2.17E-03		4.01E-05	7.86E-04	5.01E-04	3.51E-04		2.18E-05	4.94E-04	2.39E-04	1.74E-04
1725	258843.6	4084775	0.000272	4.64E-03	3.14E-03	2.23E-03		2.72E-04	4.64E-03	3.14E-03	2.23E-03		4.14E-05	8.10E-04	5.16E-04	3.62E-04		2.25E-05	5.09E-04	2.46E-04	1.79E-04
1726	258868.6	4084775	0.00028	4.77E-03	3.23E-03	2.30E-03		2.80E-04	4.77E-03	3.23E-03	2.30E-03		4.25E-05	8.33E-04	5.31E-04	3.72E-04		2.31E-05	5.23E-04	2.53E-04	1.84E-04
1727	258893.6	4084775	0.000287	4.89E-03	3.31E-03	2.36E-03		2.87E-04	4.89E-03	3.31E-03	2.36E-03		4.36E-05	8.54E-04	5.44E-04	3.81E-04		2.37E-05	5.37E-04	2.60E-04	1.89E-04
1728	258418.6	4084800	0.000146	2.48E-03	1.68E-03	1.20E-03		1.46E-04	2.48E-03	1.68E-03	1.20E-03		2.21E-05	4.33E-04	2.76E-04	1.94E-04		1.20E-05	2.72E-04	1.32E-04	9.57E-05
1729	258443.6	4084800	0.00015	2.56E-03	1.74E-03	1.23E-03		1.50E-04	2.56E-03	1.74E-03	1.23E-03		2.28E-05	4.47E-04	2.85E-04	2.00E-04		1.24E-05	2.81E-04	1.36E-04	9.88E-05
1730	258468.6	4084800	0.000155	2.64E-03	1.79E-03	1.27E-03		1.55E-04	2.64E-03	1.79E-03	1.27E-03		2.36E-05	4.62E-04	2.94E-04	2.06E-04		1.28E-05	2.90E-04	1.40E-04	1.02E-04
1731	258493.6	4084800	0.00016	2.73E-03	1.85E-03	1.32E-03		1.60E-04	2.73E-03	1.85E-03	1.32E-03		2.44E-05	4.77E-04	3.04E-04	2.13E-04		1.32E-05	3.00E-04	1.45E-04	1.05E-04
1732	258518.6	4084800	0.000166	2.83E-03	1.92E-03	1.36E-03		1.66E-04	2.83E-03	1.92E-03	1.36E-03		2.53E-05	4.95E-04	3.15E-04	2.21E-04		1.37E-05	3.11E-04	1.50E-04	1.09E-04
1733	258543.6	4084800	0.000173	2.95E-03	2.00E-03	1.42E-03		1.73E-04	2.95E-03	2.00E-03	1.42E-03		2.63E-05	5.15E-04	3.28E-04	2.30E-04		1.43E-05	3.24E-04	1.57E-04	1.14E-04
1734	258568.6	4084800	0.000179	3.05E-03	2.07E-03	1.47E-03		1.79E-04	3.05E-03	2.07E-03	1.47E-03		2.72E-05	5.33E-04	3.40E-04	2.38E-04		1.48E-05	3.35E-04	1.62E-04	1.18E-04
1735	258593.6	4084800	0.000185	3.16E-03	2.14E-03	1.52E-03		1.85E-04	3.16E-03	2.14E-03	1.52E-03		2.82E-05	5.51E-04	3.51E-04	2.46E-04		1.53E-05	3.47E-04	1.68E-04	1.22E-04
1736	258618.6	4084800	0.000191	3.26E-03	2.21E-03	1.57E-03		1.91E-04	3.26E-03	2.21E-03	1.57E-03		2.91E-05	5.70E-04	3.63E-04	2.55E-04		1.58E-05	3.58E-04	1.73E-04	1.26E-04
1737	258643.6	4084800	0.000198	3.37E-03	2.29E-03	1.62E-03		1.98E-04	3.37E-03	2.29E-03	1.62E-03		3.01E-05	5.89E-04	3.75E-04	2.63E-04		1.63E-05	3.70E-04	1.79E-04	1.30E-04
1738	258668.6	4084800	0.000204	3.49E-03	2.36E-03	1.68E-03		2.04E-04	3.49E-03	2.36E-03	1.68E-03		3.11E-05	6.09E-04	3.88E-04	2.72E-04		1.69E-05	3.83E-04	1.85E-04	1.34E-04
1739	258693.6	4084800	0.000211	3.60E-03	2.44E-03	1.73E-03		2.11E-04	3.60E-03	2.44E-03	1.73E-03		3.21E-05	6.29E-04	4.01E-04	2.81E-04		1.74E-05	3.95E-04	1.91E-04	1.39E-04
1740	258718.6	4084800	0.000218	3.72E-03	2.52E-03	1.79E-03		2.18E-04	3.72E-03	2.52E-03	1.79E-03		3.32E-05	6.50E-04	4.14E-04	2.90E-04		1.80E-05	4.08E-04	1.97E-04	1.43E-04
1741	258743.6	4084800	0.000225	3.84E-03	2.60E-03	1.85E-03		2.25E-04	3.84E-03	2.60E-03	1.85E-03		3.42E-05	6.71E-04	4.27E-04	2.99E-04		1.86E-05	4.21E-04	2.04E-04	1.48E-04
1742	258768.6	4084800	0.000232	3.96E-03	2.69E-03	1.91E-03		2.32E-04	3.96E-03	2.69E-03	1.91E-03		3.53E-05	6.92E-04	4.41E-04	3.09E-04		1.92E-05	4.35E-04	2.10E-04	1.53E-04
1743	258793.6	4084800	0.000239	4.08E-03	2.77E-03	1.97E-03		2.39E-04	4.08E-03	2.77E-03	1.97E-03		3.64E-05	7.13E-04	4.54E-04	3.18E-04		1.98E-05	4.48E-04	2.17E-04	1.57E-04
1744	258818.6	4084800	0.000247	4.20E-03	2.85E-03	2.03E-03		2.47E-04	4.20E-03	2.85E-03	2.03E-03		3.75E-05	7.34E-04	4.68E-04	3.28E-04		2.04E-05	4.61E-04	2.23E-04	1.62E-04
1745	258843.6	4084800	0.000254	4.32E-03	2.93E-03	2.08E-03		2.54E-04	4.32E-03	2.93E-03	2.08E-03		3.86E-05	7.55E-04	4.81E-04	3.37E-04		2.09E-05	4.74E-04	2.29E-04	1.67E-04
1746	258868.6	4084800	0.00026	4.44E-03	3.01E-03	2.14E-03		2.60E-04	4.44E-03	3.01E-03	2.14E-03		3.96E-05	7.75E-04	4.94E-04	3.46E-04		2.15E-05	4.87E-04	2.36E-04	1.71E-04
1747	258893.6	4084800	0.000267	4.55E-03	3.08E-03	2.19E-03		2.67E-04	4.55E-03	3.08E-03	2.19E-03		4.06E-05	7.95E-04	5.06E-04	3.55E-04		2.20E-05	4.99E-04	2.41E-04	1.75E-04
1748	258418.6	4084825	0.00014	2.39E-03	1.62E-03	1.15E-03		1.40E-04	2.39E-03	1.62E-03	1.15E-03		2.13E-05	4.17E-04	2.66E-04	1.86E-04		1.16E-05	2.62E-04	1.27E-04	9.20E-05
1749	258443.6	4084825	0.000144	2.46E-03	1.67E-03	1.18E-03		1.44E-04	2.46E-03	1.67E-03	1.18E-03		2.19E-05	4.30E-04	2.74E-04	1.92E-04		1.19E-05	2.70E-04	1.31E-04	9.48E-05
1750	258468.6	4084825	0.000149	2.54E-03	1.72E-03	1.22E-03		1.49E-04	2.54E-03	1.72E-03	1.22E-03		2.26E-05	4.43E-04	2.82E-04	1.98E-04		1.23E-05	2.78E-04	1.35E-04	9.78E-05
1751	258493.6	4084825	0.000154	2.62E-03	1.78E-03	1.26E-03		1.54E-04	2.62E-03	1.78E-03	1.26E-03		2.34E-05	4.58E-04	2.92E-04	2.05E-04		1.27E-05	2.88E-04	1.39E-04	1.01E-04
1752	258518.6	4084825	0.00016	2.73E-03	1.85E-03	1.32E-03		1.60E-04	2.73E-03	1.85E-03	1.32E-03		2.44E-05	4.77E-04	3.04E-04	2.13E-04		1.32E-05	3.00E-04	1.45E-04	1.05E-04
1753	258543.6	4084825	0.000165	2.82E-03	1.91E-03	1.36E-03		1.65E-04	2.82E-03	1.91E-03	1.36E-03		2.51E-05	4.92E-04	3.14E-04	2.20E-04		1.37E-05	3.09E-04	1.50E-04	1.09E-04
1754	258568.6	4084825	0.000171	2.91E-03	1.97E-03	1.40E-03		1.71E-04	2.91E-03	1.97E-03	1.40E-03		2.59E-05	5.08E-04	3.24E-04	2.27E-04		1.41E-05	3.19E-04	1.54E-04	1.12E-04
1755	258593.6	4084825	0.000176	3.00E-03	2.03E-03	1.45E-03		1.76E-04	3.00E-03	2.03E-03	1.45E-03		2.68E-05	5.24E-04	3.34E-04	2.34E-04		1.45E-05	3.29E-04	1.59E-04	1.16E-04
1756	258618.6	4084825	0.000182	3.10E-03	2.10E-03	1.49E-03		1.82E-04	3.10E-03	2.10E-03	1.49E-03		2.76E-05	5.41E-04	3.45E-04	2.42E-04		1.50E-05	3.40E-04	1.64E-04	1.19E-04
1757	258643.6	4084825	0.000187	3.19E-03	2.17E-03	1.54E-03		1.87E-04	3.19E-03	2.17E-03	1.54E-03		2.85E-05	5.58E-04	3.55E-04	2.49E-04		1.55E-05	3.51E-04	1.70E-04	1.23E-04
1758	258668.6	4084825	0.000193	3.29E-03	2.23E-03	1.59E-03		1.93E-04	3.29E-03	2.23E-03	1.59E-03		2.94E-05	5.75E-04	3.67E-04	2.57E-04		1.60E-05	3.62E-04	1.75E-04	1.27E-04
1759	258693.6	4084825	0.000199	3.40E-03	2.30E-03	1.64E-03		1.99E-04	3.40E-03	2.30E-03	1.64E-03		3.03E-05	5.93E-04	3.78E-04	2.65E-04		1.65E-05	3.73E-04	1.80E-04	1.31E-04
1760	258718.6	4084825	0.000205	3.50E-03	2.37E-03	1.69E-03		2.05E-04	3.50E-03	2.37E-03	1.69E-03		3.12E-05	6.12E-04	3.90E-04	2.73E-04		1.70E-05	3.84E-04	1.86E-04	1.35E-04
1761	258743.6	4084825	0.000212	3.61E-03	2.45E-03	1.74E-03		2.12E-04	3.61E-03	2.45E-03	1.74E-03		3.22E-05	6.30E-04	4.02E-04	2.81E-04		1.75E-05	3.96E-04	1.92E-04	1.39E-04
1762	258768.6	4084825	0.000218	3.72E-03	2.52E-03	1.79E-03		2.18E-04	3.72E-03	2.52E-03	1.79E-03		3.31E-05	6.49E-04	4.13E-04	2.90E-04		1.80E-05	4.08E-04	1.97E-04	1.43E-04
1763	258793.6	4084825	0.000224	3.82E-03	2.59E-03	1.84E-03		2.24E-04	3.82E-03	2.59E-03	1.84E-03		3.41E-05	6.68E-04	4.25E-04	2.98E-04		1.85E-05	4.20E-04	2.03E-04	1.47E-04
1764	258818.6	4084825	0.000231	3.93E-03	2.67E-03	1.89E-03		2.31E-04	3.93E-03	2.67E-03	1.89E-03		3.51E-05	6.87E-04	4.37E-04	3.07E-04		1.90E-05	4.32E-04	2.09E-04	1.52E-04
1765	258843.6	4084825	0.000237	4.04E-03	2.74E-03	1.95E-03		2.37E-04	4.04E-03	2.74E-03	1.95E-03		3.60E-05	7.05E-04	4.49E-04	3.15E-04		1.96E-05	4.43E-04	2.14E-04	1.56E-04
1766	258868.6	4084825	0.000243	4.15E-03	2.81E-03	2.00E-03		2.43E-04	4.15E-03	2.81E-03	2.00E-03		3.70E-05	7.24E-04	4.61E-04	3.23E-04		2.01E-05	4.55E-04	2.20E-04	1.60E-04
1767	258893.6	4084825	0.000249	4.25E-03	2.88E-03	2.05E-03		2.49E-04	4.25E-03	2.88E-03	2.05E-03		3.79E-05	7.43E-04	4.73E-04	3.32E-04		2.06E-05	4.67E-04	2.26E-04	1.64E-04
1768	258418.6	4084850	0.000134	2.29E-03	1.55E-03	1.10E-03		1.34E-04	2.29E-03	1.55E-03	1.10E-03		2.04E-05	4.00E-04	2.55E-04	1.79E-04		1.11E-05	2.51E-04	1.22E-04	8.83E-05
1769	258443.6	4084850	0.000138	2.36E-03	1.60E-03	1.14E-03		1.38E-04	2.36E-03	1.60E-03	1.14E-03		2.10E-05	4.12E-04	2.62E-04	1.84E-04		1.14E-05	2.59E-04	1.25E-04	9.09E-05
1770	258468.6	4084850	0.000143	2.44E-03	1.65E-03	1.17E-03		1.43E-04	2.44E-03	1.65E-03	1.17E-03		2.17E-05	4.26E-04	2.71E-04	1.90E-04		1.18E-05	2.68E-04	1.29E-04	9.40E-05
1771	258493.6	4084850	0.000148	2.53E-03	1.72E-03	1.22E-03		1.48E-04	2.53E-03	1.72E-03	1.22E-03		2.26E-05	4.42E-04	2.82E-04	1.97E-04		1.23E-05	2.78E-04	1.34E-04	9.76E-05
1772	258518.6	4084850	0.000153	2.61E-03	1.77E-03	1.26E-03		1.53E-04	2.61E-03	1.77E-03	1.26E-03		2.32E-05	4.55E-04	2.90E-04	2.03E-04		1.26E-05	2.86E-04	1.38E-04	1.01E-04
1773	258543.6	4084850	0.000157	2.68E-03	1.82E-03	1.29E-03		1.57E-04	2.68E-03	1.82E-03	1.29E-03		2.39E-05	4.69E-04	2.99E-04	2.09E-04		1.30E-05	2.95E-04	1.43E-04	1.04E-04
1774	258568.6	4084850	0.000162	2.76E-03	1.87E-03	1.33E-03		1.62E-04	2.76E-03	1.87E-03	1.33E-03		2.47E-05	4.83E-04	3.08E-04	2.16E-04		1.34E-05	3.03E-04	1.47E-04	1.07E-04
1775	258593.6	4084850	0.000167	2.85E-03	1.93E-03	1.37E-03		1.67E-04	2.85E-03	1.93E-03	1.37E-03		2.54E-05	4.97E-04	3.17E-04	2.22E-04		1.38E-05	3.13E-04	1.51E-04	1.10E-04
1776	258618.6	4084850	0.000172	2.93E-03	1.99E-03	1.41E-03		1.72E-04	2.93E-03	1.99E-03	1.41E-03		2.62E-05	5.12E-04	3.26E-04	2.29E-04		1.42E-05	3.22E-04	1.56E-04	1.13E-04
1777	258643.6	4084850	0.000177	3.02E-03	2.05E-03	1.45E-03		1.77E-04	3.02E-03	2.05E-03	1.45E-03		2.69E-05	5.27E-04	3.36E-04	2.36E-04		1.46E-05	3.31E-04	1.60E-04	1.16E-04
1778	258668.6	4084850	0.000182	3.11E-03	2.11E-03	1.50E-03		1.82E-04	3.11E-03	2.11E-03	1.50E-03		2.77E-05	5.43E-04	3.46E-04	2.43E-04		1.51E-05	3.41E-04	1.65E-04	1.20E-04
1779	258693.6	4084850	0.000188	3.20E-03	2.17E-03	1.54E-03		1.88E-04	3.20E-03	2.17E-03	1.54E-03		2.85E-05	5.59E-04	3.56E-04	2.50E-04		1.55E-05	3.51E-04	1.70E-04	1.23E-04
1780	258718.6	4084850	0.000193	3.29E-03	2.23E-03	1.59E-03		1.93E-04	3.29E-03	2.23E-03	1.59E-03		2.94E-05	5.75E-04	3.67E-04	2.57E-04		1.60E-05	3.61E-04	1.75E-04	1.27E-04
1781	258743.6	4084850	0.000199	3.39E-03	2.30E-03	1.63E-03		1.99E-04	3.39E-03	2.30E-03	1.63E-03		3.02E-05	5.92E-04	3.77E-04	2.64E-04		1.64E-05	3.72E-04	1.80E-04	1.31E-04
1782	258768.6	4084850	0.000204	3.48E-03	2.36E-03	1.68E-03		2.04E-04	3.48E-03	2.36E-03	1.68E-03		3.11E-05	6.09E-04	3.88E-04	2.72E-04		1.69E-05	3.82E-04	1.85E-04	1.34E-04
1783	258793.6	4084850	0.00021	3.58E-03	2.43E-03	1.73E-03		2.10E-04	3.58E-03	2.43E-03	1.73E-03		3.19E-05	6.26E-04	3.99E-04	2.79E-04		1.74E-05	3.93E-04	1.90E-04	1.38E-04
1784	258818.6	4084850	0.000216	3.68E-03	2.50E-03	1.77E-03		2.16E-04	3.68E-03	2.50E-03	1.77E-03		3.28E-05	6.43E-04	4.10E-04	2.87E-04		1.78E-05	4.04E-04	1.95E-04	1.42E-04
1785	258843.6	4084850	0.000222	3.78E-03	2.56E-03	1.82E-03		2.22E-04	3.78E-03	2.56E-03	1.82E-03		3.37E-05	6.61E-04	4.21E-04	2.95E-04		1.83E-05	4.15E-04	2.01E-04	1.46E-04
1786	258868.6	4084850	0.000228	3.89E-03	2.63E-03	1.87E-03		2.28E-04	3.89E-03	2.63E-03	1.87E-03		3.47E-05	6.79E-04	4.32E-04	3.03E-04		1.88E-05	4.27E-04	2.06E-04	1.50E-04
1787	258893.6	4084850	0.000234	3.99E-03	2.71E-03	1.92E-03		2.34E-04	3.99E-03	2.71E-03	1.92E-03		3.56E-05	6.97E-04	4.44E-04	3.11E-04		1.93E-05	4.38E-04	2.12E-04	1.54E-04
1788	258418.6	4084875	0.000129	2.20E-03	1.49E-03	1.06E-03		1.29E-04	2.20E-03	1.49E-03	1.06E-03		1.96E-05	3.84E-04	2.44E-04	1.71E-04		1.06E-05	2.41E-04	1.17E-04	8.47E-05
1789	258443.6	4084875	0.000132	2.26E-03

1806	258868.6	4084875	0.000214	3.65E-03	2.48E-03	1.76E-03	2.14E-04	3.65E-03	2.48E-03	1.76E-03	3.26E-05	6.38E-04	4.06E-04	2.85E-04	1.77E-05	4.01E-04	1.94E-04	1.41E-04
1807	258418.6	4084900	0.000123	2.10E-03	1.43E-03	1.01E-03	1.23E-04	2.10E-03	1.43E-03	1.01E-03	1.87E-05	3.67E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.11E-05
1808	258443.6	4084900	0.000127	2.17E-03	1.47E-03	1.04E-03	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.93E-05	3.78E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.35E-05
1809	258468.6	4084900	0.000131	2.23E-03	1.51E-03	1.08E-03	1.31E-04	2.23E-03	1.51E-03	1.08E-03	1.99E-05	3.90E-04	2.49E-04	1.74E-04	1.08E-05	2.45E-04	1.19E-04	8.61E-05
1810	258493.6	4084900	0.000135	2.30E-03	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.02E-04	2.56E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.87E-05
1811	258518.6	4084900	0.000138	2.36E-03	1.60E-03	1.14E-03	1.38E-04	2.36E-03	1.60E-03	1.14E-03	2.11E-05	4.12E-04	2.63E-04	1.84E-04	1.14E-05	2.59E-04	1.25E-04	9.10E-05
1812	258543.6	4084900	0.000142	2.42E-03	1.64E-03	1.17E-03	1.42E-04	2.42E-03	1.64E-03	1.17E-03	2.16E-05	4.23E-04	2.70E-04	1.89E-04	1.17E-05	2.66E-04	1.29E-04	9.34E-05
1813	258568.6	4084900	0.000146	2.49E-03	1.69E-03	1.20E-03	1.46E-04	2.49E-03	1.69E-03	1.20E-03	2.22E-05	4.34E-04	2.77E-04	1.94E-04	1.20E-05	2.73E-04	1.32E-04	9.59E-05
1814	258593.6	4084900	0.00015	2.55E-03	1.73E-03	1.23E-03	1.50E-04	2.55E-03	1.73E-03	1.23E-03	2.28E-05	4.46E-04	2.84E-04	1.99E-04	1.24E-05	2.80E-04	1.35E-04	9.84E-05
1815	258618.6	4084900	0.000154	2.62E-03	1.78E-03	1.26E-03	1.54E-04	2.62E-03	1.78E-03	1.26E-03	2.34E-05	4.58E-04	2.92E-04	2.04E-04	1.27E-05	2.88E-04	1.39E-04	1.01E-04
1816	258643.6	4084900	0.000158	2.69E-03	1.82E-03	1.30E-03	1.58E-04	2.69E-03	1.82E-03	1.30E-03	2.40E-05	4.70E-04	2.99E-04	2.10E-04	1.30E-05	2.95E-04	1.43E-04	1.04E-04
1817	258668.6	4084900	0.000162	2.76E-03	1.87E-03	1.33E-03	1.62E-04	2.76E-03	1.87E-03	1.33E-03	2.46E-05	4.82E-04	3.07E-04	2.15E-04	1.34E-05	3.03E-04	1.46E-04	1.06E-04
1818	258693.6	4084900	0.000166	2.83E-03	1.92E-03	1.36E-03	1.66E-04	2.83E-03	1.92E-03	1.36E-03	2.53E-05	4.95E-04	3.15E-04	2.21E-04	1.37E-05	3.11E-04	1.50E-04	1.09E-04
1819	258718.6	4084900	0.000171	2.91E-03	1.97E-03	1.40E-03	1.71E-04	2.91E-03	1.97E-03	1.40E-03	2.59E-05	5.08E-04	3.24E-04	2.27E-04	1.41E-05	3.19E-04	1.54E-04	1.12E-04
1820	258743.6	4084900	0.000175	2.98E-03	2.02E-03	1.44E-03	1.75E-04	2.98E-03	2.02E-03	1.44E-03	2.66E-05	5.21E-04	3.32E-04	2.33E-04	1.45E-05	3.28E-04	1.58E-04	1.15E-04
1821	258768.6	4084900	0.00018	3.07E-03	2.08E-03	1.48E-03	1.80E-04	3.07E-03	2.08E-03	1.48E-03	2.73E-05	5.35E-04	3.41E-04	2.39E-04	1.48E-05	3.36E-04	1.63E-04	1.18E-04
1822	258793.6	4084900	0.000185	3.15E-03	2.14E-03	1.52E-03	1.85E-04	3.15E-03	2.14E-03	1.52E-03	2.81E-05	5.50E-04	3.51E-04	2.46E-04	1.53E-05	3.46E-04	1.67E-04	1.21E-04
1823	258818.6	4084900	0.00019	3.24E-03	2.20E-03	1.56E-03	1.90E-04	3.24E-03	2.20E-03	1.56E-03	2.89E-05	5.66E-04	3.60E-04	2.53E-04	1.57E-05	3.56E-04	1.72E-04	1.25E-04
1824	258843.6	4084900	0.000196	3.33E-03	2.26E-03	1.61E-03	1.96E-04	3.33E-03	2.26E-03	1.61E-03	2.97E-05	5.82E-04	3.71E-04	2.60E-04	1.61E-05	3.66E-04	1.77E-04	1.29E-04
1825	258868.6	4084900	0.000201	3.43E-03	2.33E-03	1.65E-03	2.01E-04	3.43E-03	2.33E-03	1.65E-03	3.06E-05	6.00E-04	3.82E-04	2.68E-04	1.66E-05	3.77E-04	1.82E-04	1.32E-04
1826	258418.6	4084925	0.000119	2.02E-03	1.37E-03	9.74E-04	1.19E-04	2.02E-03	1.37E-03	9.74E-04	1.80E-05	3.53E-04	2.25E-04	1.58E-04	9.79E-06	2.22E-04	1.07E-04	7.79E-05
1827	258443.6	4084925	0.000122	2.08E-03	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.85E-05	3.63E-04	2.31E-04	1.62E-04	1.01E-05	2.28E-04	1.10E-04	8.01E-05
1828	258468.6	4084925	0.000125	2.13E-03	1.45E-03	1.03E-03	1.25E-04	2.13E-03	1.45E-03	1.03E-03	1.90E-05	3.73E-04	2.38E-04	1.66E-04	1.03E-05	2.34E-04	1.13E-04	8.23E-05
1829	258493.6	4084925	0.000128	2.19E-03	1.48E-03	1.05E-03	1.28E-04	2.19E-03	1.48E-03	1.05E-03	1.95E-05	3.82E-04	2.43E-04	1.71E-04	1.06E-05	2.40E-04	1.16E-04	8.43E-05
1830	258518.6	4084925	0.000131	2.24E-03	1.52E-03	1.08E-03	1.31E-04	2.24E-03	1.52E-03	1.08E-03	2.00E-05	3.91E-04	2.49E-04	1.75E-04	1.09E-05	2.46E-04	1.19E-04	8.64E-05
1831	258543.6	4084925	0.000135	2.30E-03	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.01E-04	2.56E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.86E-05
1832	258568.6	4084925	0.000138	2.35E-03	1.60E-03	1.13E-03	1.38E-04	2.35E-03	1.60E-03	1.13E-03	2.10E-05	4.11E-04	2.62E-04	1.84E-04	1.14E-05	2.58E-04	1.25E-04	9.08E-05
1833	258593.6	4084925	0.000141	2.41E-03	1.64E-03	1.16E-03	1.41E-04	2.41E-03	1.64E-03	1.16E-03	2.15E-05	4.21E-04	2.68E-04	1.88E-04	1.17E-05	2.65E-04	1.28E-04	9.30E-05
1834	258618.6	4084925	0.000145	2.47E-03	1.68E-03	1.19E-03	1.45E-04	2.47E-03	1.68E-03	1.19E-03	2.20E-05	4.32E-04	2.75E-04	1.93E-04	1.20E-05	2.71E-04	1.31E-04	9.53E-05
1835	258643.6	4084925	0.000149	2.53E-03	1.72E-03	1.22E-03	1.49E-04	2.53E-03	1.72E-03	1.22E-03	2.26E-05	4.42E-04	2.82E-04	1.98E-04	1.23E-05	2.78E-04	1.34E-04	9.77E-05
1836	258668.6	4084925	0.000152	2.60E-03	1.76E-03	1.25E-03	1.52E-04	2.60E-03	1.76E-03	1.25E-03	2.32E-05	4.53E-04	2.89E-04	2.03E-04	1.26E-05	2.85E-04	1.38E-04	1.00E-04
1837	258693.6	4084925	0.000156	2.66E-03	1.80E-03	1.28E-03	1.56E-04	2.66E-03	1.80E-03	1.28E-03	2.37E-05	4.65E-04	2.96E-04	2.08E-04	1.29E-05	2.92E-04	1.41E-04	1.03E-04
1838	258718.6	4084925	0.00016	2.73E-03	1.85E-03	1.31E-03	1.60E-04	2.73E-03	1.85E-03	1.31E-03	2.43E-05	4.77E-04	3.04E-04	2.13E-04	1.32E-05	3.00E-04	1.45E-04	1.05E-04
1839	258743.6	4084925	0.000164	2.80E-03	1.90E-03	1.35E-03	1.64E-04	2.80E-03	1.90E-03	1.35E-03	2.50E-05	4.89E-04	3.12E-04	2.18E-04	1.36E-05	3.07E-04	1.49E-04	1.08E-04
1840	258768.6	4084925	0.000169	2.88E-03	1.95E-03	1.39E-03	1.69E-04	2.88E-03	1.95E-03	1.39E-03	2.56E-05	5.02E-04	3.20E-04	2.24E-04	1.39E-05	3.16E-04	1.53E-04	1.11E-04
1841	258793.6	4084925	0.000173	2.95E-03	2.00E-03	1.42E-03	1.73E-04	2.95E-03	2.00E-03	1.42E-03	2.64E-05	5.16E-04	3.29E-04	2.30E-04	1.43E-05	3.24E-04	1.57E-04	1.14E-04
1842	258818.6	4084925	0.000178	3.04E-03	2.06E-03	1.46E-03	1.78E-04	3.04E-03	2.06E-03	1.46E-03	2.71E-05	5.31E-04	3.38E-04	2.37E-04	1.47E-05	3.34E-04	1.61E-04	1.17E-04
1843	258843.6	4084925	0.000184	3.13E-03	2.12E-03	1.51E-03	1.84E-04	3.13E-03	2.12E-03	1.51E-03	2.79E-05	5.47E-04	3.48E-04	2.44E-04	1.52E-05	3.44E-04	1.66E-04	1.21E-04
1844	258418.6	4084950	0.000114	1.94E-03	1.31E-03	9.34E-04	1.14E-04	1.94E-03	1.31E-03	9.34E-04	1.73E-05	3.39E-04	2.16E-04	1.51E-04	9.39E-06	2.13E-04	1.03E-04	7.48E-05
1845	258443.6	4084950	0.000116	1.98E-03	1.35E-03	9.56E-04	1.16E-04	1.98E-03	1.35E-03	9.56E-04	1.77E-05	3.47E-04	2.21E-04	1.55E-04	9.61E-06	2.18E-04	1.05E-04	7.65E-05
1846	258468.6	4084950	0.000119	2.03E-03	1.38E-03	9.78E-04	1.19E-04	2.03E-03	1.38E-03	9.78E-04	1.81E-05	3.55E-04	2.26E-04	1.58E-04	9.84E-06	2.23E-04	1.08E-04	7.83E-05
1847	258493.6	4084950	0.000122	2.08E-03	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.85E-05	3.63E-04	2.31E-04	1.62E-04	1.01E-05	2.28E-04	1.10E-04	8.01E-05
1848	258518.6	4084950	0.000125	2.13E-03	1.44E-03	1.02E-03	1.25E-04	2.13E-03	1.44E-03	1.02E-03	1.90E-05	3.71E-04	2.37E-04	1.66E-04	1.03E-05	2.33E-04	1.13E-04	8.20E-05
1849	258543.6	4084950	0.000128	2.18E-03	1.47E-03	1.05E-03	1.28E-04	2.18E-03	1.47E-03	1.05E-03	1.94E-05	3.80E-04	2.42E-04	1.70E-04	1.05E-05	2.39E-04	1.15E-04	8.39E-05
1850	258568.6	4084950	0.000131	2.23E-03	1.51E-03	1.07E-03	1.31E-04	2.23E-03	1.51E-03	1.07E-03	1.98E-05	3.89E-04	2.48E-04	1.74E-04	1.08E-05	2.44E-04	1.18E-04	8.58E-05
1851	258593.6	4084950	0.000134	2.28E-03	1.54E-03	1.10E-03	1.34E-04	2.28E-03	1.54E-03	1.10E-03	2.03E-05	3.98E-04	2.53E-04	1.78E-04	1.10E-05	2.50E-04	1.21E-04	8.78E-05
1852	258618.6	4084950	0.000137	2.33E-03	1.58E-03	1.12E-03	1.37E-04	2.33E-03	1.58E-03	1.12E-03	2.08E-05	4.07E-04	2.59E-04	1.82E-04	1.13E-05	2.56E-04	1.24E-04	8.98E-05
1853	258643.6	4084950	0.00014	2.38E-03	1.62E-03	1.15E-03	1.40E-04	2.38E-03	1.62E-03	1.15E-03	2.13E-05	4.16E-04	2.65E-04	1.86E-04	1.16E-05	2.62E-04	1.27E-04	9.19E-05
1854	258668.6	4084950	0.000143	2.44E-03	1.65E-03	1.18E-03	1.43E-04	2.44E-03	1.65E-03	1.18E-03	2.18E-05	4.26E-04	2.72E-04	1.90E-04	1.18E-05	2.68E-04	1.30E-04	9.41E-05
1855	258693.6	4084950	0.000147	2.50E-03	1.69E-03	1.20E-03	1.47E-04	2.50E-03	1.69E-03	1.20E-03	2.23E-05	4.37E-04	2.78E-04	1.95E-04	1.21E-05	2.74E-04	1.33E-04	9.64E-05
1856	258718.6	4084950	0.00015	2.56E-03	1.74E-03	1.23E-03	1.50E-04	2.56E-03	1.74E-03	1.23E-03	2.28E-05	4.47E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.88E-05
1857	258743.6	4084950	0.000154	2.63E-03	1.78E-03	1.27E-03	1.54E-04	2.63E-03	1.78E-03	1.27E-03	2.34E-05	4.59E-04	2.92E-04	2.05E-04	1.27E-05	2.88E-04	1.39E-04	1.01E-04
1858	258768.6	4084950	0.000158	2.70E-03	1.83E-03	1.30E-03	1.58E-04	2.70E-03	1.83E-03	1.30E-03	2.40E-05	4.71E-04	3.00E-04	2.10E-04	1.31E-05	2.96E-04	1.43E-04	1.04E-04
1859	258793.6	4084950	0.000162	2.77E-03	1.88E-03	1.33E-03	1.62E-04	2.77E-03	1.88E-03	1.33E-03	2.47E-05	4.84E-04	3.08E-04	2.16E-04	1.34E-05	3.04E-04	1.47E-04	1.07E-04
1860	258818.6	4084950	0.000167	2.85E-03	1.93E-03	1.37E-03	1.67E-04	2.85E-03	1.93E-03	1.37E-03	2.54E-05	4.98E-04	3.17E-04	2.22E-04	1.38E-05	3.13E-04	1.51E-04	1.10E-04
1861	258843.6	4084950	0.000172	2.94E-03	1.99E-03	1.41E-03	1.72E-04	2.94E-03	1.99E-03	1.41E-03	2.62E-05	5.13E-04	3.27E-04	2.29E-04	1.42E-05	3.22E-04	1.56E-04	1.13E-04
1862	258418.6	4084975	0.000108	1.85E-03	1.25E-03	8.91E-04	1.08E-04	1.85E-03	1.25E-03	8.91E-04	1.65E-05	3.23E-04	2.06E-04	1.44E-04	8.96E-06	2.03E-04	9.82E-05	7.13E-05
1863	258443.6	4084975	0.000111	1.89E-03	1.28E-03	9.10E-04	1.11E-04	1.89E-03	1.28E-03	9.10E-04	1.69E-05	3.30E-04	2.10E-04	1.47E-04	9.15E-06	2.07E-04	1.00E-04	7.28E-05
1864	258468.6	4084975	0.000113	1.93E-03	1.31E-03	9.30E-04	1.13E-04	1.93E-03	1.31E-03	9.30E-04	1.72E-05	3.37E-04	2.15E-04	1.51E-04	9.35E-06	2.12E-04	1.02E-04	7.44E-05
1865	258493.6	4084975	0.000116	1.97E-03	1.34E-03	9.50E-04	1.16E-04	1.97E-03	1.34E-03	9.50E-04	1.76E-05	3.44E-04	2.19E-04	1.54E-04	9.55E-06	2.16E-04	1.05E-04	7.60E-05
1866	258518.6	4084975	0.000118	2.01E-03	1.37E-03	9.71E-04	1.18E-04	2.01E-03	1.37E-03	9.71E-04	1.80E-05	3.52E-04	2.24E-04	1.57E-04	9.76E-06	2.21E-04	1.07E-04	7.77E-05
1867	258543.6	4084975	0.000121	2.06E-03	1.40E-03	9.92E-04	1.21E-04	2.06E-03	1.40E-03	9.92E-04	1.84E-05	3.59E-04	2.29E-04	1.61E-04	9.97E-06	2.26E-04	1.09E-04	7.94E-05
1868	258568.6	4084975	0.000123	2.10E-03	1.43E-03	1.01E-03	1.23E-04	2.10E-03	1.43E-03	1.01E-03	1.88E-05	3.67E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.11E-05
1869	258593.6	4084975	0.000126	2.15E-03	1.46E-03	1.04E-03	1.26E-04	2.15E-03	1.46E-03	1.04E-03	1.92E-05	3.75E-04	2.39E-04	1.68E-04	1.04E-05	2.36E-04	1.14E-04	8.28E-05
1870	258618.6	4084975	0.000129	2.20E-03	1.49E-03	1.06E-03	1.29E-04	2.20E-03	1.49E-03	1.06E-03	1.96E-05	3.83E-04	2.44E-04	1.71E-04	1.06E-05	2.41E-04	1.17E-04	8.46E-05
1871	258643.6	4084975	0.000132	2.24E-03	1.52E-03	1.08E-03	1.32E-04	2.24E-03	1.52E-03	1.08E-03	2.00E-05	3.92E-04	2.50E-04	1.75E-04	1.09E-05	2.46E-04	1.19E-04	8.65E-05
1872	258668.6	4084975	0.000135	2.29E-03	1.56E-03	1.11E-03	1.35E-04	2.29E-03	1.56E-03	1.11E-03	2.05E-05	4.01E-04	2.55E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.85E-05
1873	258693.6	4084975	0.000138	2.35E-03	1.59E-03	1.13E-03	1.38E-04	2.35E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.58E-04	1.25E-04	9.05E-05
1874	258718.6	4084975	0.000141	2.40E-03	1.63E-03	1.16E-03	1.41E-04	2.40E-03	1.63E-03	1.16E-03	2.14E-05	4.20E-04	2.67E-04	1.87E-04	1.16E-05	2.64E-04	1.28E-04	9.27E-05
1875	258743.6	4084975	0.000144	2.46E-03	1.67E-03	1.19E-03	1.44E-04	2.46E-03	1.67E-03	1.19E-03	2.20E-05	4.30E-04	2.74E-04	1.92E-04	1.19E-05	2.70E-04	1.31E-04	9.50E-05
1876	258768.6	4084975	0.000148	2.53E-03	1.71E-03	1.22E-03	1.48E-04	2.53E-03	1.71E-03	1.22E-03	2.25E-05	4.41E-04	2.81E-04	1.97E-04	1.22E-05	2.77E-04	1.34E-04	9.74E-05
1877	258793.6	4084975	0.000152	2.60E-03	1.76E-03	1.25E-03	1.52E-04	2.60E-03	1.76E-03	1.25E-03	2.31E-05	4.53E-04	2.89E-04	2.02E-04	1.26E-05	2.85E-04	1.38E-04	1.00E-04
1878	258818.6	4084975	0.000157	2.67E-03	1.81E-03	1.29E-03	1.57E-04	2.67E-03	1.81E-03	1.29E-03	2.38E-05	4.66E-04	2.97E-04	2.08E-04	1.29E-05	2.93E-04	1.42E-04	1.03E-04
1879	258843.6	4084975	0.000161	2.75E-03	1.86E-03	1.32E-03	1.61E-04	2.75E-03	1.86E-03	1.32E-03	2.45E-05	4.80E-04	3.06E-04	2.14E-04	1.33E-05	3.02E-04	1.46E-04	1.06E-04
1880	258418.6	4085000	0.000103	1.76E-03	1.19E-03	8.49E-04	1.03E-04	1.76E-03	1.19E-03	8.49E-04	1.57E-05	3.08E-04	1.96E-04	1.37E-04	8.53E-06	1.93E-04	9.35E-05	6.79E-05
1881	258443.6	4085000	0.000105	1.80E-03	1.22E-03	8.66E-04	1.05E-04	1.80E-03	1.22E-03	8.66E-04	1.60E-05	3.14E-04	2.00E-04	1.40E-04	8.71E-06	1.97E-04	9.54E-05	6.93E-05
1882	258468.6	4085000	0.000108	1.83E-03	1.24E-03	8.83E-04	1.08E-04	1.83E-03	1.24E-03	8.83E-04	1.64E-05	3.20E-04	2.04E-04	1.43E-04	8.88E-06	2.01E-04	9.73E-05	7.07E-05
1883	258493.6	4085000	0.00011	1.87E-03	1.27E-03	9.01E-04	1.10E-04	1.87E-03	1.27E-03	9.01E-04	1.67E-05	3.27E-04	2.08E-04	1.46E-04	9.06E-06	2.05E-04	9.93E-05	7.21E-05
1884	258518.6	4085000	0.000112	1.91E-03	1.29E-03	9.19E-04	1.12E-04	1.91E-03	1.29E-03	9.19E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.24E-06	2.09E-04	1.01E-04	7.36E-05
1885	258543.6	4085000	0.000114	1.95E-03	1.32E-03	9.38E-04	1.14E-04	1.95E-03	1.32E-03	9.38E-04	1.74E-05	3.40E-04	2.17E-04	1.52E-04	9.43E-06	2.14E-04	1.03E-04	7.50E-05
1886	258568.6	4085000	0.000116	1.99E-03	1.35E-03	9.57E-04	1.16E-04	1.99E-03	1.35E-03	9.57E-04	1.77E-05	3.47E-04	2.21E-04	1.55E-04	9.62E-06	2.18E-04	1.05E-04	7.66E-05
1887	258593.6	4085000	0.000119	2.03E-03	1.37E-03	9.76E-04	1.19E-04	2.03E-03	1.37E-03	9.76E-04	1.81E-05	3.54E-04	2.25E-04	1.58E-04	9.81E-06	2.22E-04	1.08E-04	7.81E-05
1888	258618.6	4085000	0.000121	2.07E-03	1.40E-03	9.96E-04	1.21E-04	2.07E-03	1.40E-03	9.96E-04	1.84E-05	3.61E-04	2.30E-04	1.61E-04	1.00E-05	2.27E-04	1.10E-04	7.97E-05
1889	258643.6	4085000	0.000124	2.11E-03	1.43E-03	1.02E-03	1.24E-04	2.11E-03	1.43E-03	1.02E-03	1.88E-05	3.69E-04	2.35E-04	1.65E-04	1.02E-05	2.32E-04	1.12E-04	8.14E-05
1890	258668.6	4085000	0.000126	2.16E-03	1.46E-03	1.04E-03	1.26E-04	2.16E-03	1.46E-03	1.04E-03	1.92E-05	3.77E-04	2.40E-04	1.68E-04	1.04E-05	2.37E-04	1.14E-04	8.31E-05
1891	258693.6	4085000	0.000129	2.20E-03	1.49E-03	1.06E-03	1.29E-04	2.20E-03	1.49E-03	1.06E-03	1.97E-05	3.85E-04	2.45E-04	1.72E-04	1.07E-05	2.42E-04	1.17E-04	8.50E-05
1892	258718.6	4085000	0.000132	2.25E-03	1.53E-03	1.09E-03	1.32E-04	2.25E-03	1.53E-03	1.09E-03	2.01E-05	3.94E-04	2.51E-04	1.76E-04	1.09E-05	2.47E-04	1.20E-04	8.69E-05
1893	258743.6	4085000	0.000135	2.31E-03	1.56E-03	1.11E-03	1.35E-04	2.31E-03	1.56E-03	1.11E-03	2.06E-05	4.03E-04	2.57E-04	1.80E-04	1.12E-05	2.53E-04	1.23E-04	8.90E-05
1894	258768.6	4085000	0.000139	2.37E-03	1.60E-03	1.14E-03	1.39E-04	2.37E-03	1.60E-03	1.14E-03	2.11E-05	4.13E-04	2.63E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.12E-05
1895	258793.6	4085000	0.000142	2.43E-03	1.65E-03	1.17E-03	1.42E-04	2.43E-03	1.65E-03	1.17E-03	2.17E-05	4.24E-04	2.70E-04	1.89E-04	1.18E-05	2.67E-04	1.29E-04	9.36E-05
1896	258818.6	4085000	0.000146	2.50E-03	1.69E-03	1.20E-03	1.46E-04	2.50E-03	1.69E-03	1.20E-03	2.23E-05	4.36E-04	2.78E-04	1.95E-04	1.21E-05	2.74E-04	1.32E-04	9.62E-05
1897	258843.6	4085000	0.000151	2.57E-03	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E-03	2.29E-05	4.49E-04	2.86E-04	2.00E-04	1.24E-05	2.82E-04	1.36E-04	9.90E-05
1898	258418.6	4085025	9.83E-05	1.68E-03	1.14E-03	8.08E-04	9.83E-05	1.68E-03	1.14E-03	8.08E-04	1.50E-05	2.93E-04	1.87E-04	1.31E-04	8.12E-06	1.84E-04	8.90E-05	6.46E-05
1899	258443.6	4085025	0.0001	1.71E-03	1.16E-03	8.23E-04	1.00E-04	1.71E-03	1.16E-03	8.23E-04	1.52E-05	2.98E-04	1.90E-04	1.33E-04	8.27E-06	1.88E-04	9.07E-05	6.59E-05
1900	258468.6	4085025	0.000102	1.74E-03	1.18E-03	8.38E-04	1.02E-04	1.74E-03	1.18E-03	8.38E-04	1.55E-05	3.04E-04	1.94E-04	1.36E-04	8.43E-06	1.91E-04	9.24E-05	6.71E-05
1901	258493.6	4085025	0.000104	1.77E-03	1.20E-03	8.54E-04	1.04E-04	1.77E-03	1.20E-03	8.54E-04	1.58E-05	3.10E-04	1.97E-04	1.38E-04	8.59E-06	1.95E-04	9.41E-05	6.84E-05
1902	258518.6	4085025	0.000106	1.81E-03	1.22E-03	8.70E-04	1.06E-04	1.81E-03	1.22E-03	8.70E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.75E-06	1.98E-04	9.59E-05	6.96E-05
1903	258543.6	4085025	0.000108	1.84E-03	1.25E-03	8.86E-04	1.08E-04	1.84E-03	1.25E-03	8.86E-04	1.64E-05	3.21E-04	2.05E-04	1.44E-04	8.91E-06	2.02E-04	9.77E-05	7.09E-05
1904

1919	258493.6	4085050	9.85E-05	1.68E-03	1.14E-03	8.09E-04	9.85E-05	1.68E-03	1.14E-03	8.09E-04	1.50E-05	2.93E-04	1.87E-04	1.31E-04	8.14E-06	1.84E-04	8.92E-05	6.48E-05
1920	258518.6	4085050	0.0001	1.71E-03	1.16E-03	8.23E-04	1.00E-04	1.71E-03	1.16E-03	8.23E-04	1.52E-05	2.99E-04	1.90E-04	1.33E-04	8.28E-06	1.88E-04	9.07E-05	6.59E-05
1921	258543.6	4085050	0.000102	1.74E-03	1.18E-03	8.38E-04	1.02E-04	1.74E-03	1.18E-03	8.38E-04	1.55E-05	3.04E-04	1.94E-04	1.36E-04	8.42E-06	1.91E-04	9.23E-05	6.70E-05
1922	258568.6	4085050	0.000104	1.77E-03	1.20E-03	8.53E-04	1.04E-04	1.77E-03	1.20E-03	8.53E-04	1.58E-05	3.09E-04	1.97E-04	1.38E-04	8.57E-06	1.94E-04	9.39E-05	6.82E-05
1923	258593.6	4085050	0.000106	1.80E-03	1.22E-03	8.68E-04	1.06E-04	1.80E-03	1.22E-03	8.68E-04	1.61E-05	3.15E-04	2.00E-04	1.40E-04	8.72E-06	1.98E-04	9.56E-05	6.94E-05
1924	258618.6	4085050	0.000108	1.83E-03	1.24E-03	8.83E-04	1.08E-04	1.83E-03	1.24E-03	8.83E-04	1.64E-05	3.20E-04	2.04E-04	1.43E-04	8.88E-06	2.01E-04	9.73E-05	7.07E-05
1925	258643.6	4085050	0.00011	1.87E-03	1.27E-03	9.00E-04	1.10E-04	1.87E-03	1.27E-03	9.00E-04	1.67E-05	3.26E-04	2.08E-04	1.46E-04	9.05E-06	2.05E-04	9.91E-05	7.20E-05
1926	258668.6	4085050	0.000112	1.90E-03	1.29E-03	9.17E-04	1.12E-04	1.90E-03	1.29E-03	9.17E-04	1.70E-05	3.32E-04	2.12E-04	1.48E-04	9.22E-06	2.09E-04	1.01E-04	7.34E-05
1927	258693.6	4085050	0.000114	1.94E-03	1.32E-03	9.35E-04	1.14E-04	1.94E-03	1.32E-03	9.35E-04	1.73E-05	3.39E-04	2.16E-04	1.51E-04	9.40E-06	2.13E-04	1.03E-04	7.48E-05
1928	258718.6	4085050	0.000116	1.98E-03	1.34E-03	9.54E-04	1.16E-04	1.98E-03	1.34E-03	9.54E-04	1.77E-05	3.46E-04	2.20E-04	1.55E-04	9.60E-06	2.17E-04	1.05E-04	7.64E-05
1929	258743.6	4085050	0.000119	2.02E-03	1.37E-03	9.75E-04	1.19E-04	2.02E-03	1.37E-03	9.75E-04	1.80E-05	3.53E-04	2.25E-04	1.58E-04	9.80E-06	2.22E-04	1.07E-04	7.80E-05
1930	258768.6	4085050	0.000121	2.07E-03	1.40E-03	9.97E-04	1.21E-04	2.07E-03	1.40E-03	9.97E-04	1.85E-05	3.61E-04	2.30E-04	1.61E-04	1.00E-05	2.27E-04	1.10E-04	7.98E-05
1931	258793.6	4085050	0.000124	2.12E-03	1.44E-03	1.02E-03	1.24E-04	2.12E-03	1.44E-03	1.02E-03	1.89E-05	3.70E-04	2.36E-04	1.65E-04	1.03E-05	2.32E-04	1.12E-04	8.16E-05
1932	258818.6	4085050	0.000127	2.17E-03	1.47E-03	1.05E-03	1.27E-04	2.17E-03	1.47E-03	1.05E-03	1.93E-05	3.79E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.36E-05
1933	258418.6	4085075	8.9E-05	1.52E-03	1.03E-03	7.31E-04	8.90E-05	1.52E-03	1.03E-03	7.31E-04	1.35E-05	2.65E-04	1.69E-04	1.18E-04	7.35E-06	1.67E-04	8.05E-05	5.85E-05
1934	258443.6	4085075	9.04E-05	1.54E-03	1.05E-03	7.43E-04	9.04E-05	1.54E-03	1.05E-03	7.43E-04	1.37E-05	2.69E-04	1.72E-04	1.20E-04	7.47E-06	1.69E-04	8.18E-05	5.94E-05
1935	258468.6	4085075	9.19E-05	1.57E-03	1.06E-03	7.55E-04	9.19E-05	1.57E-03	1.06E-03	7.55E-04	1.40E-05	2.74E-04	1.74E-04	1.22E-04	7.59E-06	1.72E-04	8.31E-05	6.04E-05
1936	258493.6	4085075	9.34E-05	1.59E-03	1.08E-03	7.67E-04	9.34E-05	1.59E-03	1.08E-03	7.67E-04	1.42E-05	2.78E-04	1.77E-04	1.24E-04	7.71E-06	1.75E-04	8.45E-05	6.14E-05
1937	258518.6	4085075	9.49E-05	1.62E-03	1.10E-03	7.79E-04	9.49E-05	1.62E-03	1.10E-03	7.79E-04	1.44E-05	2.82E-04	1.80E-04	1.26E-04	7.83E-06	1.78E-04	8.58E-05	6.24E-05
1938	258543.6	4085075	9.64E-05	1.64E-03	1.11E-03	7.92E-04	9.64E-05	1.64E-03	1.11E-03	7.92E-04	1.47E-05	2.87E-04	1.83E-04	1.28E-04	7.96E-06	1.80E-04	8.72E-05	6.34E-05
1939	258568.6	4085075	9.8E-05	1.67E-03	1.13E-03	8.05E-04	9.80E-05	1.67E-03	1.13E-03	8.05E-04	1.49E-05	2.92E-04	1.86E-04	1.30E-04	8.09E-06	1.83E-04	8.87E-05	6.44E-05
1940	258593.6	4085075	9.96E-05	1.70E-03	1.15E-03	8.18E-04	9.96E-05	1.70E-03	1.15E-03	8.18E-04	1.51E-05	2.97E-04	1.89E-04	1.32E-04	8.23E-06	1.86E-04	9.01E-05	6.55E-05
1941	258618.6	4085075	0.000101	1.73E-03	1.17E-03	8.32E-04	1.01E-04	1.73E-03	1.17E-03	8.32E-04	1.54E-05	3.02E-04	1.92E-04	1.35E-04	8.36E-06	1.90E-04	9.17E-05	6.66E-05
1942	258643.6	4085075	0.000103	1.76E-03	1.19E-03	8.46E-04	1.03E-04	1.76E-03	1.19E-03	8.46E-04	1.57E-05	3.07E-04	1.96E-04	1.37E-04	8.51E-06	1.93E-04	9.33E-05	6.77E-05
1943	258668.6	4085075	0.000105	1.79E-03	1.21E-03	8.62E-04	1.05E-04	1.79E-03	1.21E-03	8.62E-04	1.59E-05	3.12E-04	1.99E-04	1.39E-04	8.66E-06	1.96E-04	9.49E-05	6.89E-05
1944	258693.6	4085075	0.000107	1.82E-03	1.23E-03	8.77E-04	1.07E-04	1.82E-03	1.23E-03	8.77E-04	1.62E-05	3.18E-04	2.03E-04	1.42E-04	8.82E-06	2.00E-04	9.67E-05	7.02E-05
1945	258718.6	4085075	0.000109	1.86E-03	1.26E-03	8.94E-04	1.09E-04	1.86E-03	1.26E-03	8.94E-04	1.66E-05	3.24E-04	2.07E-04	1.45E-04	8.99E-06	2.04E-04	9.85E-05	7.16E-05
1946	258743.6	4085075	0.000111	1.89E-03	1.28E-03	9.12E-04	1.11E-04	1.89E-03	1.28E-03	9.12E-04	1.69E-05	3.31E-04	2.11E-04	1.48E-04	9.17E-06	2.08E-04	1.00E-04	7.30E-05
1947	258768.6	4085075	0.000113	1.93E-03	1.31E-03	9.31E-04	1.13E-04	1.93E-03	1.31E-03	9.31E-04	1.72E-05	3.37E-04	2.15E-04	1.51E-04	9.36E-06	2.12E-04	1.03E-04	7.45E-05
1948	258793.6	4085075	0.000116	1.97E-03	1.34E-03	9.51E-04	1.16E-04	1.97E-03	1.34E-03	9.51E-04	1.76E-05	3.45E-04	2.20E-04	1.54E-04	9.56E-06	2.17E-04	1.05E-04	7.61E-05
1949	258818.6	4085075	0.000118	2.02E-03	1.37E-03	9.72E-04	1.18E-04	2.02E-03	1.37E-03	9.72E-04	1.80E-05	3.52E-04	2.25E-04	1.57E-04	9.77E-06	2.21E-04	1.07E-04	7.78E-05
1950	258439.6	4083713	7.57E-05	1.29E-03	8.75E-04	6.22E-04	7.57E-05	1.29E-03	8.75E-04	6.22E-04	1.15E-05	2.26E-04	1.44E-04	1.01E-04	6.25E-06	1.42E-04	6.85E-05	4.98E-05
1951	258464.6	4083713	7.62E-05	1.30E-03	8.80E-04	6.26E-04	7.62E-05	1.30E-03	8.80E-04	6.26E-04	1.16E-05	2.27E-04	1.45E-04	1.01E-04	6.29E-06	1.43E-04	6.89E-05	5.01E-05
1952	258489.6	4083713	7.66E-05	1.31E-03	8.85E-04	6.29E-04	7.66E-05	1.31E-03	8.85E-04	6.29E-04	1.16E-05	2.28E-04	1.45E-04	1.02E-04	6.32E-06	1.43E-04	6.93E-05	5.03E-05
1953	258514.6	4083713	7.7E-05	1.31E-03	8.90E-04	6.32E-04	7.70E-05	1.31E-03	8.90E-04	6.32E-04	1.17E-05	2.29E-04	1.46E-04	1.02E-04	6.36E-06	1.44E-04	6.97E-05	5.06E-05
1954	258539.6	4083713	7.75E-05	1.32E-03	8.96E-04	6.37E-04	7.75E-05	1.32E-03	8.96E-04	6.37E-04	1.18E-05	2.31E-04	1.47E-04	1.03E-04	6.40E-06	1.45E-04	7.02E-05	5.10E-05
1955	258564.6	4083713	7.8E-05	1.33E-03	9.01E-04	6.41E-04	7.80E-05	1.33E-03	9.01E-04	6.41E-04	1.19E-05	2.32E-04	1.48E-04	1.04E-04	6.44E-06	1.46E-04	7.06E-05	5.13E-05
1956	258589.6	4083713	7.84E-05	1.34E-03	9.06E-04	6.44E-04	7.84E-05	1.34E-03	9.06E-04	6.44E-04	1.19E-05	2.33E-04	1.49E-04	1.04E-04	6.47E-06	1.47E-04	7.09E-05	5.15E-05
1957	258614.6	4083713	7.88E-05	1.34E-03	9.10E-04	6.47E-04	7.88E-05	1.34E-03	9.10E-04	6.47E-04	1.20E-05	2.35E-04	1.49E-04	1.05E-04	6.50E-06	1.47E-04	7.13E-05	5.18E-05
1958	258639.6	4083713	7.92E-05	1.35E-03	9.15E-04	6.50E-04	7.92E-05	1.35E-03	9.15E-04	6.50E-04	1.20E-05	2.36E-04	1.50E-04	1.05E-04	6.54E-06	1.48E-04	7.16E-05	5.20E-05
1959	258664.6	4083713	7.96E-05	1.36E-03	9.20E-04	6.54E-04	7.96E-05	1.36E-03	9.20E-04	6.54E-04	1.21E-05	2.37E-04	1.51E-04	1.06E-04	6.57E-06	1.49E-04	7.20E-05	5.23E-05
1960	258689.6	4083713	8.01E-05	1.37E-03	9.26E-04	6.58E-04	8.01E-05	1.37E-03	9.26E-04	6.58E-04	1.22E-05	2.38E-04	1.52E-04	1.06E-04	6.61E-06	1.50E-04	7.25E-05	5.26E-05
1961	258714.6	4083713	8.07E-05	1.38E-03	9.33E-04	6.63E-04	8.07E-05	1.38E-03	9.33E-04	6.63E-04	1.23E-05	2.40E-04	1.53E-04	1.07E-04	6.67E-06	1.51E-04	7.31E-05	5.31E-05
1962	258364.6	4083738	7.79E-05	1.33E-03	9.00E-04	6.40E-04	7.79E-05	1.33E-03	9.00E-04	6.40E-04	1.18E-05	2.32E-04	1.48E-04	1.04E-04	6.43E-06	1.46E-04	7.05E-05	5.12E-05
1963	258389.6	4083738	7.85E-05	1.34E-03	9.07E-04	6.45E-04	7.85E-05	1.34E-03	9.07E-04	6.45E-04	1.19E-05	2.34E-04	1.49E-04	1.04E-04	6.48E-06	1.47E-04	7.10E-05	5.16E-05
1964	258414.6	4083738	7.92E-05	1.35E-03	9.15E-04	6.50E-04	7.92E-05	1.35E-03	9.15E-04	6.50E-04	1.20E-05	2.36E-04	1.50E-04	1.05E-04	6.54E-06	1.48E-04	7.17E-05	5.21E-05
1965	258439.6	4083738	7.98E-05	1.36E-03	9.23E-04	6.56E-04	7.98E-05	1.36E-03	9.23E-04	6.56E-04	1.21E-05	2.38E-04	1.51E-04	1.06E-04	6.59E-06	1.49E-04	7.23E-05	5.25E-05
1966	258464.6	4083738	8.03E-05	1.37E-03	9.29E-04	6.60E-04	8.03E-05	1.37E-03	9.29E-04	6.60E-04	1.22E-05	2.39E-04	1.52E-04	1.07E-04	6.64E-06	1.50E-04	7.27E-05	5.28E-05
1967	258489.6	4083738	8.08E-05	1.38E-03	9.34E-04	6.64E-04	8.08E-05	1.38E-03	9.34E-04	6.64E-04	1.23E-05	2.41E-04	1.53E-04	1.07E-04	6.68E-06	1.51E-04	7.31E-05	5.31E-05
1968	258514.6	4083738	8.15E-05	1.39E-03	9.42E-04	6.70E-04	8.15E-05	1.39E-03	9.42E-04	6.70E-04	1.24E-05	2.43E-04	1.55E-04	1.08E-04	6.73E-06	1.53E-04	7.38E-05	5.36E-05
1969	258539.6	4083738	8.2E-05	1.40E-03	9.48E-04	6.74E-04	8.20E-05	1.40E-03	9.48E-04	6.74E-04	1.25E-05	2.44E-04	1.56E-04	1.09E-04	6.77E-06	1.54E-04	7.42E-05	5.39E-05
1970	258564.6	4083738	8.25E-05	1.41E-03	9.53E-04	6.77E-04	8.25E-05	1.41E-03	9.53E-04	6.77E-04	1.25E-05	2.46E-04	1.56E-04	1.10E-04	6.81E-06	1.54E-04	7.46E-05	5.42E-05
1971	258589.6	4083738	8.29E-05	1.41E-03	9.58E-04	6.81E-04	8.29E-05	1.41E-03	9.58E-04	6.81E-04	1.26E-05	2.47E-04	1.57E-04	1.10E-04	6.85E-06	1.55E-04	7.50E-05	5.45E-05
1972	258614.6	4083738	8.33E-05	1.42E-03	9.63E-04	6.84E-04	8.33E-05	1.42E-03	9.63E-04	6.84E-04	1.27E-05	2.48E-04	1.58E-04	1.11E-04	6.88E-06	1.56E-04	7.54E-05	5.48E-05
1973	258639.6	4083738	8.38E-05	1.43E-03	9.68E-04	6.88E-04	8.38E-05	1.43E-03	9.68E-04	6.88E-04	1.27E-05	2.49E-04	1.59E-04	1.11E-04	6.92E-06	1.57E-04	7.58E-05	5.51E-05
1974	258664.6	4083738	8.42E-05	1.44E-03	9.73E-04	6.92E-04	8.42E-05	1.44E-03	9.73E-04	6.92E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.95E-06	1.58E-04	7.62E-05	5.54E-05
1975	258689.6	4083738	8.49E-05	1.45E-03	9.82E-04	6.98E-04	8.49E-05	1.45E-03	9.82E-04	6.98E-04	1.29E-05	2.53E-04	1.61E-04	1.13E-04	7.02E-06	1.59E-04	7.69E-05	5.58E-05
1976	258714.6	4083738	8.56E-05	1.46E-03	9.89E-04	7.03E-04	8.56E-05	1.46E-03	9.89E-04	7.03E-04	1.30E-05	2.55E-04	1.62E-04	1.14E-04	7.07E-06	1.60E-04	7.74E-05	5.63E-05
1977	258364.6	4083763	8.2E-05	1.40E-03	9.47E-04	6.73E-04	8.20E-05	1.40E-03	9.47E-04	6.73E-04	1.25E-05	2.44E-04	1.56E-04	1.09E-04	6.77E-06	1.53E-04	7.42E-05	5.39E-05
1978	258389.6	4083763	8.28E-05	1.41E-03	9.57E-04	6.80E-04	8.28E-05	1.41E-03	9.57E-04	6.80E-04	1.26E-05	2.47E-04	1.57E-04	1.10E-04	6.84E-06	1.55E-04	7.50E-05	5.45E-05
1979	258414.6	4083763	8.36E-05	1.43E-03	9.66E-04	6.87E-04	8.36E-05	1.43E-03	9.66E-04	6.87E-04	1.27E-05	2.49E-04	1.59E-04	1.11E-04	6.91E-06	1.56E-04	7.57E-05	5.50E-05
1980	258439.6	4083763	8.43E-05	1.44E-03	9.74E-04	6.92E-04	8.43E-05	1.44E-03	9.74E-04	6.92E-04	1.28E-05	2.51E-04	1.60E-04	1.12E-04	6.96E-06	1.58E-04	7.63E-05	5.54E-05
1981	258464.6	4083763	8.49E-05	1.45E-03	9.81E-04	6.97E-04	8.49E-05	1.45E-03	9.81E-04	6.97E-04	1.29E-05	2.53E-04	1.61E-04	1.13E-04	7.01E-06	1.59E-04	7.68E-05	5.58E-05
1982	258489.6	4083763	8.55E-05	1.46E-03	9.88E-04	7.02E-04	8.55E-05	1.46E-03	9.88E-04	7.02E-04	1.30E-05	2.54E-04	1.62E-04	1.14E-04	7.06E-06	1.60E-04	7.73E-05	5.62E-05
1983	258514.6	4083763	8.63E-05	1.47E-03	9.97E-04	7.09E-04	8.63E-05	1.47E-03	9.97E-04	7.09E-04	1.31E-05	2.57E-04	1.64E-04	1.15E-04	7.12E-06	1.61E-04	7.81E-05	5.67E-05
1984	258539.6	4083763	8.68E-05	1.48E-03	1.00E-03	7.13E-04	8.68E-05	1.48E-03	1.00E-03	7.13E-04	1.32E-05	2.59E-04	1.65E-04	1.15E-04	7.17E-06	1.63E-04	7.86E-05	5.71E-05
1985	258564.6	4083763	8.73E-05	1.49E-03	1.01E-03	7.17E-04	8.73E-05	1.49E-03	1.01E-03	7.17E-04	1.33E-05	2.60E-04	1.66E-04	1.16E-04	7.21E-06	1.63E-04	7.91E-05	5.74E-05
1986	258589.6	4083763	8.78E-05	1.50E-03	1.02E-03	7.22E-04	8.78E-05	1.50E-03	1.02E-03	7.22E-04	1.34E-05	2.62E-04	1.67E-04	1.17E-04	7.25E-06	1.64E-04	7.95E-05	5.77E-05
1987	258614.6	4083763	8.83E-05	1.51E-03	1.02E-03	7.26E-04	8.83E-05	1.51E-03	1.02E-03	7.26E-04	1.34E-05	2.63E-04	1.68E-04	1.17E-04	7.29E-06	1.65E-04	7.99E-05	5.81E-05
1988	258639.6	4083763	8.88E-05	1.51E-03	1.03E-03	7.30E-04	8.88E-05	1.51E-03	1.03E-03	7.30E-04	1.35E-05	2.65E-04	1.69E-04	1.18E-04	7.34E-06	1.66E-04	8.04E-05	5.84E-05
1989	258664.6	4083763	8.96E-05	1.53E-03	1.04E-03	7.36E-04	8.96E-05	1.53E-03	1.04E-03	7.36E-04	1.36E-05	2.67E-04	1.70E-04	1.19E-04	7.40E-06	1.68E-04	8.11E-05	5.89E-05
1990	258689.6	4083763	9.02E-05	1.54E-03	1.04E-03	7.41E-04	9.02E-05	1.54E-03	1.04E-03	7.41E-04	1.37E-05	2.69E-04	1.71E-04	1.20E-04	7.45E-06	1.69E-04	8.16E-05	5.93E-05
1991	258714.6	4083763	9.08E-05	1.55E-03	1.05E-03	7.46E-04	9.08E-05	1.55E-03	1.05E-03	7.46E-04	1.38E-05	2.70E-04	1.72E-04	1.21E-04	7.50E-06	1.70E-04	8.22E-05	5.97E-05
1992	258364.6	4083788	8.65E-05	1.47E-03	1.00E-03	7.11E-04	8.65E-05	1.47E-03	1.00E-03	7.11E-04	1.32E-05	2.58E-04	1.64E-04	1.15E-04	7.14E-06	1.62E-04	7.83E-05	5.69E-05
1993	258389.6	4083788	8.75E-05	1.49E-03	1.01E-03	7.18E-04	8.75E-05	1.49E-03	1.01E-03	7.18E-04	1.33E-05	2.60E-04	1.66E-04	1.16E-04	7.22E-06	1.64E-04	7.91E-05	5.75E-05
1994	258414.6	4083788	8.83E-05	1.51E-03	1.02E-03	7.25E-04	8.83E-05	1.51E-03	1.02E-03	7.25E-04	1.34E-05	2.63E-04	1.68E-04	1.17E-04	7.29E-06	1.65E-04	7.99E-05	5.80E-05
1995	258439.6	4083788	8.91E-05	1.52E-03	1.03E-03	7.32E-04	8.91E-05	1.52E-03	1.03E-03	7.32E-04	1.35E-05	2.65E-04	1.69E-04	1.18E-04	7.35E-06	1.67E-04	8.06E-05	5.85E-05
1996	258464.6	4083788	8.98E-05	1.53E-03	1.04E-03	7.38E-04	8.98E-05	1.53E-03	1.04E-03	7.38E-04	1.37E-05	2.68E-04	1.70E-04	1.19E-04	7.42E-06	1.68E-04	8.13E-05	5.91E-05
1997	258489.6	4083788	9.07E-05	1.55E-03	1.05E-03	7.45E-04	9.07E-05	1.55E-03	1.05E-03	7.45E-04	1.38E-05	2.70E-04	1.72E-04	1.21E-04	7.49E-06	1.70E-04	8.21E-05	5.96E-05
1998	258514.6	4083788	9.15E-05	1.56E-03	1.06E-03	7.51E-04	9.15E-05	1.56E-03	1.06E-03	7.51E-04	1.39E-05	2.72E-04	1.74E-04	1.22E-04	7.55E-06	1.71E-04	8.28E-05	6.01E-05
1999	258539.6	4083788	9.21E-05	1.57E-03	1.06E-03	7.57E-04	9.21E-05	1.57E-03	1.06E-03	7.57E-04	1.40E-05	2.74E-04	1.75E-04	1.23E-04	7.61E-06	1.72E-04	8.34E-05	6.06E-05
2000	258564.6	4083788	9.27E-05	1.58E-03	1.07E-03	7.62E-04	9.27E-05	1.58E-03	1.07E-03	7.62E-04	1.41E-05	2.76E-04	1.76E-04	1.23E-04	7.66E-06	1.74E-04	8.39E-05	6.09E-05
2001	258589.6	4083788	9.34E-05	1.59E-03	1.08E-03	7.67E-04	9.34E-05	1.59E-03	1.08E-03	7.67E-04	1.42E-05	2.78E-04	1.77E-04	1.24E-04	7.71E-06	1.75E-04	8.45E-05	6.14E-05
2002	258614.6	4083788	9.41E-05	1.60E-03	1.09E-03	7.73E-04	9.41E-05	1.60E-03	1.09E-03	7.73E-04	1.43E-05	2.80E-04	1.79E-04	1.25E-04	7.77E-06	1.76E-04	8.52E-05	6.19E-05
2003	258639.6	4083788	9.47E-05	1.61E-03	1.09E-03	7.78E-04	9.47E-05	1.61E-03	1.09E-03	7.78E-04	1.44E-05	2.82E-04	1.80E-04	1.26E-04	7.82E-06	1.77E-04	8.57E-05	6.22E-05
2004	258664.6	4083788	9.54E-05	1.63E-03	1.10E-03	7.83E-04	9.54E-05	1.63E-03	1.10E-03	7.83E-04	1.45E-05	2.84E-04	1.81E-04	1.27E-04	7.88E-06	1.78E-04	8.63E-05	6.27E-05
2005	258689.6	4083788	9.6E-05	1.64E-03	1.11E-03	7.88E-04	9.60E-05	1.64E-03	1.11E-03	7.88E-04	1.46E-05	2.86E-04	1.82E-04	1.28E-04	7.93E-06	1.80E-04	8.69E-05	6.31E-05
2006	258714.6	4083788	9.65E-05	1.65E-03	1.12E-03	7.93E-04	9.65E-05	1.65E-03	1.12E-03	7.93E-04	1.47E-05	2.87E-04	1.83E-04	1.28E-04	7.97E-06	1.81E-04	8.74E-05	6.35E-05
2007	258364.6	4083813	9.13E-05	1.56E-03	1.05E-03	7.50E-04	9.13E-05	1.56E-03	1.05E-03	7.50E-04	1.39E-05	2.72E-04	1.73E-04	1.21E-04	7.54E-06	1.71E-04	8.26E-05	6.00E-05
2008	258389.6	4083813	9.23E-05	1.57E-03	1.07E-03	7.58E-04	9.23E-05	1.57E-03	1.07E-03	7.58E-04	1.40E-05	2.75E-04	1.75E-04	1.23E-04	7.62E-06	1.73E-04	8.35E-05	6.07E-05
2009	258414.6	4083813	9.33E-05	1.59E-03	1.08E-03	7.66E-04	9.33E-05	1.59E-03	1.08E-03	7.66E-04	1.42E-05	2.78E-04	1.77E-04	1.24E-04	7.70E-06	1.75E-04	8.44E-05	6.13E-05
2010	258439.6	4083813	9.42E-05	1.61E-03	1.09E-03	7.74E-04	9.42E-05	1.61E-03	1.09E-03	7.74E-04	1.43E-05	2.81E-04	1.79E-04	1.25E-04	7.78E-06	1.76E-04	8.53E-05	6.19E-05
2011	258464.6	4083813	9.52E-05	1.62E-03	1.10E-03	7.82E-04	9.52E-05	1.62E-03	1.10E-03	7.82E-04	1.45E-05	2.83E-04	1.81E-04	1.27E-04	7.86E-06	1.78E-04	8.61E-05	6.26E-05
2012	258489.6	4083813	9.63E-05	1.64E-03	1.11E-03	7.91E-04	9.63E-05	1.64E-03	1.11E-03	7.91E-04	1.46E-05	2.87E-04	1.83E-04	1.28E-04	7.95E-06	1.80E-04	8.72E-05	6.33E-05
2013	258514.6	4083813	9.71E-05	1.66E-03	1.12E-03	7.98E-04	9.71E-05	1.66E-03	1.12E-03	7.98E-04	1.48E-05	2.89E-04	1.84E-04	1.29E-04	8.02E-06	1.82E-04	8.79E-05	6.38E-05
2014	258539.6	4083813	9.79E-05	1.67E-03	1.13E-03	8.04E-04	9.79E-05	1.67E-03	1.13E-03	8.04E-04	1.49E-05	2.91E-04	1.86E-04	1.30E-04	8.08E-06	1.83E-04	8.86E-05	6.43E-05
2015	258564.6	4083813	9.86E-05	1.68E-03	1.14E-03	8.10E-04	9.86E-05	1.68E-03	1.14E-03	8.10E-04	1.50E-05	2.94E-04	1.87E-04	1.31E-04	8.14E-06	1.85E-04	8.92E-05	6.48E-05
2016	258589

2032	258614.6	4083838	0.000107	1.83E-03	1.24E-03	8.81E-04	1.07E-04	1.83E-03	1.24E-03	8.81E-04	1.63E-05	3.19E-04	2.04E-04	1.43E-04	8.86E-06	2.01E-04	9.71E-05	7.05E-05
2033	258639.6	4083838	0.000108	1.84E-03	1.25E-03	8.88E-04	1.08E-04	1.84E-03	1.25E-03	8.88E-04	1.64E-05	3.22E-04	2.05E-04	1.44E-04	8.93E-06	2.02E-04	9.79E-05	7.11E-05
2034	258664.6	4083838	0.000109	1.86E-03	1.26E-03	8.95E-04	1.09E-04	1.86E-03	1.26E-03	8.95E-04	1.66E-05	3.24E-04	2.07E-04	1.45E-04	9.00E-06	2.04E-04	9.86E-05	7.16E-05
2035	258689.6	4083838	0.00011	1.87E-03	1.27E-03	9.01E-04	1.10E-04	1.87E-03	1.27E-03	9.01E-04	1.67E-05	3.27E-04	2.08E-04	1.46E-04	9.06E-06	2.05E-04	9.92E-05	7.21E-05
2036	258714.6	4083838	0.000111	1.89E-03	1.28E-03	9.08E-04	1.11E-04	1.89E-03	1.28E-03	9.08E-04	1.68E-05	3.29E-04	2.10E-04	1.47E-04	9.13E-06	2.07E-04	1.00E-04	7.27E-05
2037	258364.6	4083863	0.000101	1.73E-03	1.17E-03	8.33E-04	1.01E-04	1.73E-03	1.17E-03	8.33E-04	1.54E-05	3.02E-04	1.92E-04	1.35E-04	8.37E-06	1.90E-04	9.17E-05	6.66E-05
2038	258389.6	4083863	0.000103	1.75E-03	1.19E-03	8.44E-04	1.03E-04	1.75E-03	1.19E-03	8.44E-04	1.56E-05	3.06E-04	1.95E-04	1.37E-04	8.49E-06	1.92E-04	9.30E-05	6.76E-05
2039	258414.6	4083863	0.000104	1.78E-03	1.20E-03	8.56E-04	1.04E-04	1.78E-03	1.20E-03	8.56E-04	1.58E-05	3.10E-04	1.98E-04	1.39E-04	8.61E-06	1.95E-04	9.43E-05	6.85E-05
2040	258439.6	4083863	0.000106	1.80E-03	1.22E-03	8.69E-04	1.06E-04	1.80E-03	1.22E-03	8.69E-04	1.61E-05	3.15E-04	2.01E-04	1.41E-04	8.73E-06	1.98E-04	9.57E-05	6.95E-05
2041	258464.6	4083863	0.000107	1.83E-03	1.24E-03	8.82E-04	1.07E-04	1.83E-03	1.24E-03	8.82E-04	1.63E-05	3.20E-04	2.04E-04	1.43E-04	8.87E-06	2.01E-04	9.72E-05	7.06E-05
2042	258489.6	4083863	0.000109	1.85E-03	1.26E-03	8.92E-04	1.09E-04	1.85E-03	1.26E-03	8.92E-04	1.65E-05	3.23E-04	2.06E-04	1.44E-04	8.97E-06	2.03E-04	9.83E-05	7.14E-05
2043	258514.6	4083863	0.00011	1.87E-03	1.27E-03	9.02E-04	1.10E-04	1.87E-03	1.27E-03	9.02E-04	1.67E-05	3.27E-04	2.08E-04	1.46E-04	9.07E-06	2.06E-04	9.94E-05	7.22E-05
2044	258539.6	4083863	0.000111	1.89E-03	1.28E-03	9.12E-04	1.11E-04	1.89E-03	1.28E-03	9.12E-04	1.69E-05	3.31E-04	2.11E-04	1.48E-04	9.17E-06	2.08E-04	1.00E-04	7.30E-05
2045	258564.6	4083863	0.000112	1.92E-03	1.30E-03	9.24E-04	1.12E-04	1.92E-03	1.30E-03	9.24E-04	1.71E-05	3.35E-04	2.13E-04	1.50E-04	9.28E-06	2.10E-04	1.02E-04	7.39E-05
2046	258589.6	4083863	0.000114	1.94E-03	1.31E-03	9.34E-04	1.14E-04	1.94E-03	1.31E-03	9.34E-04	1.73E-05	3.39E-04	2.16E-04	1.51E-04	9.39E-06	2.13E-04	1.03E-04	7.48E-05
2047	258614.6	4083863	0.000115	1.96E-03	1.33E-03	9.43E-04	1.15E-04	1.96E-03	1.33E-03	9.43E-04	1.75E-05	3.42E-04	2.18E-04	1.53E-04	9.49E-06	2.15E-04	1.04E-04	7.55E-05
2048	258639.6	4083863	0.000116	1.98E-03	1.34E-03	9.55E-04	1.16E-04	1.98E-03	1.34E-03	9.55E-04	1.77E-05	3.46E-04	2.21E-04	1.55E-04	9.60E-06	2.18E-04	1.05E-04	7.64E-05
2049	258664.6	4083863	0.000117	2.00E-03	1.35E-03	9.63E-04	1.17E-04	2.00E-03	1.35E-03	9.63E-04	1.78E-05	3.49E-04	2.22E-04	1.56E-04	9.68E-06	2.19E-04	1.06E-04	7.71E-05
2050	258689.6	4083863	0.000118	2.01E-03	1.36E-03	9.70E-04	1.18E-04	2.01E-03	1.36E-03	9.70E-04	1.80E-05	3.52E-04	2.24E-04	1.57E-04	9.75E-06	2.21E-04	1.07E-04	7.76E-05
2051	258714.6	4083863	0.000119	2.03E-03	1.37E-03	9.77E-04	1.19E-04	2.03E-03	1.37E-03	9.77E-04	1.81E-05	3.54E-04	2.26E-04	1.58E-04	9.82E-06	2.23E-04	1.08E-04	7.82E-05
2052	258364.6	4083888	0.000107	1.82E-03	1.23E-03	8.77E-04	1.07E-04	1.82E-03	1.23E-03	8.77E-04	1.62E-05	3.18E-04	2.02E-04	1.42E-04	8.81E-06	2.00E-04	9.66E-05	7.01E-05
2053	258389.6	4083888	0.000108	1.85E-03	1.25E-03	8.91E-04	1.08E-04	1.85E-03	1.25E-03	8.91E-04	1.65E-05	3.23E-04	2.06E-04	1.44E-04	8.95E-06	2.03E-04	9.81E-05	7.13E-05
2054	258414.6	4083888	0.00011	1.88E-03	1.27E-03	9.05E-04	1.10E-04	1.88E-03	1.27E-03	9.05E-04	1.67E-05	3.28E-04	2.09E-04	1.46E-04	9.09E-06	2.06E-04	9.97E-05	7.24E-05
2055	258439.6	4083888	0.000112	1.91E-03	1.29E-03	9.20E-04	1.12E-04	1.91E-03	1.29E-03	9.20E-04	1.70E-05	3.33E-04	2.12E-04	1.49E-04	9.25E-06	2.10E-04	1.01E-04	7.36E-05
2056	258464.6	4083888	0.000114	1.94E-03	1.32E-03	9.36E-04	1.14E-04	1.94E-03	1.32E-03	9.36E-04	1.73E-05	3.39E-04	2.16E-04	1.51E-04	9.41E-06	2.13E-04	1.03E-04	7.49E-05
2057	258489.6	4083888	0.000115	1.97E-03	1.33E-03	9.49E-04	1.15E-04	1.97E-03	1.33E-03	9.49E-04	1.76E-05	3.44E-04	2.19E-04	1.54E-04	9.54E-06	2.16E-04	1.05E-04	7.59E-05
2058	258514.6	4083888	0.000117	1.99E-03	1.35E-03	9.61E-04	1.17E-04	1.99E-03	1.35E-03	9.61E-04	1.78E-05	3.48E-04	2.22E-04	1.56E-04	9.66E-06	2.19E-04	1.06E-04	7.69E-05
2059	258539.6	4083888	0.000118	2.02E-03	1.37E-03	9.73E-04	1.18E-04	2.02E-03	1.37E-03	9.73E-04	1.80E-05	3.53E-04	2.25E-04	1.58E-04	9.78E-06	2.22E-04	1.07E-04	7.79E-05
2060	258564.6	4083888	0.00012	2.05E-03	1.39E-03	9.87E-04	1.20E-04	2.05E-03	1.39E-03	9.87E-04	1.83E-05	3.58E-04	2.28E-04	1.60E-04	9.92E-06	2.25E-04	1.09E-04	7.90E-05
2061	258589.6	4083888	0.000122	2.08E-03	1.41E-03	1.00E-03	1.22E-04	2.08E-03	1.41E-03	1.00E-03	1.85E-05	3.63E-04	2.31E-04	1.62E-04	1.01E-05	2.28E-04	1.10E-04	8.01E-05
2062	258614.6	4083888	0.000123	2.10E-03	1.42E-03	1.01E-03	1.23E-04	2.10E-03	1.42E-03	1.01E-03	1.87E-05	3.67E-04	2.34E-04	1.64E-04	1.02E-05	2.31E-04	1.11E-04	8.10E-05
2063	258639.6	4083888	0.000125	2.13E-03	1.44E-03	1.03E-03	1.25E-04	2.13E-03	1.44E-03	1.03E-03	1.90E-05	3.72E-04	2.37E-04	1.66E-04	1.03E-05	2.34E-04	1.13E-04	8.21E-05
2064	258664.6	4083888	0.000126	2.15E-03	1.46E-03	1.04E-03	1.26E-04	2.15E-03	1.46E-03	1.04E-03	1.92E-05	3.75E-04	2.39E-04	1.68E-04	1.04E-05	2.36E-04	1.14E-04	8.29E-05
2065	258689.6	4083888	0.000127	2.17E-03	1.47E-03	1.04E-03	1.27E-04	2.17E-03	1.47E-03	1.04E-03	1.93E-05	3.79E-04	2.41E-04	1.69E-04	1.05E-05	2.38E-04	1.15E-04	8.36E-05
2066	258714.6	4083888	0.000128	2.18E-03	1.48E-03	1.05E-03	1.28E-04	2.18E-03	1.48E-03	1.05E-03	1.95E-05	3.82E-04	2.43E-04	1.70E-04	1.06E-05	2.40E-04	1.16E-04	8.42E-05
2067	258364.6	4083913	0.000112	1.91E-03	1.30E-03	9.22E-04	1.12E-04	1.91E-03	1.30E-03	9.22E-04	1.71E-05	3.34E-04	2.13E-04	1.49E-04	9.27E-06	2.10E-04	1.02E-04	7.38E-05
2068	258389.6	4083913	0.000114	1.95E-03	1.32E-03	9.39E-04	1.14E-04	1.95E-03	1.32E-03	9.39E-04	1.74E-05	3.40E-04	2.17E-04	1.52E-04	9.44E-06	2.14E-04	1.03E-04	7.51E-05
2069	258414.6	4083913	0.000116	1.98E-03	1.34E-03	9.55E-04	1.16E-04	1.98E-03	1.34E-03	9.55E-04	1.77E-05	3.46E-04	2.21E-04	1.55E-04	9.60E-06	2.18E-04	1.05E-04	7.64E-05
2070	258439.6	4083913	0.000118	2.02E-03	1.37E-03	9.73E-04	1.18E-04	2.02E-03	1.37E-03	9.73E-04	1.80E-05	3.53E-04	2.25E-04	1.58E-04	9.78E-06	2.22E-04	1.07E-04	7.79E-05
2071	258464.6	4083913	0.000121	2.06E-03	1.40E-03	9.92E-04	1.21E-04	2.06E-03	1.40E-03	9.92E-04	1.84E-05	3.60E-04	2.29E-04	1.61E-04	9.98E-06	2.26E-04	1.09E-04	7.94E-05
2072	258489.6	4083913	0.000123	2.09E-03	1.42E-03	1.01E-03	1.23E-04	2.09E-03	1.42E-03	1.01E-03	1.87E-05	3.65E-04	2.33E-04	1.63E-04	1.01E-05	2.30E-04	1.11E-04	8.07E-05
2073	258514.6	4083913	0.000125	2.12E-03	1.44E-03	1.02E-03	1.25E-04	2.12E-03	1.44E-03	1.02E-03	1.89E-05	3.71E-04	2.36E-04	1.66E-04	1.03E-05	2.33E-04	1.13E-04	8.19E-05
2074	258539.6	4083913	0.000126	2.16E-03	1.46E-03	1.04E-03	1.26E-04	2.16E-03	1.46E-03	1.04E-03	1.92E-05	3.76E-04	2.40E-04	1.68E-04	1.04E-05	2.37E-04	1.14E-04	8.31E-05
2075	258564.6	4083913	0.000129	2.19E-03	1.49E-03	1.06E-03	1.29E-04	2.19E-03	1.49E-03	1.06E-03	1.95E-05	3.83E-04	2.44E-04	1.71E-04	1.06E-05	2.41E-04	1.16E-04	8.45E-05
2076	258589.6	4083913	0.000131	2.23E-03	1.51E-03	1.07E-03	1.31E-04	2.23E-03	1.51E-03	1.07E-03	1.99E-05	3.89E-04	2.48E-04	1.74E-04	1.08E-05	2.44E-04	1.18E-04	8.58E-05
2077	258614.6	4083913	0.000132	2.26E-03	1.53E-03	1.09E-03	1.32E-04	2.26E-03	1.53E-03	1.09E-03	2.01E-05	3.94E-04	2.51E-04	1.76E-04	1.09E-05	2.48E-04	1.20E-04	8.70E-05
2078	258639.6	4083913	0.000134	2.29E-03	1.55E-03	1.10E-03	1.34E-04	2.29E-03	1.55E-03	1.10E-03	2.04E-05	4.00E-04	2.55E-04	1.79E-04	1.11E-05	2.52E-04	1.22E-04	8.84E-05
2079	258664.6	4083913	0.000136	2.32E-03	1.57E-03	1.12E-03	1.36E-04	2.32E-03	1.57E-03	1.12E-03	2.07E-05	4.05E-04	2.58E-04	1.81E-04	1.12E-05	2.54E-04	1.23E-04	8.94E-05
2080	258689.6	4083913	0.000137	2.34E-03	1.59E-03	1.13E-03	1.37E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.09E-04	2.60E-04	1.83E-04	1.13E-05	2.57E-04	1.24E-04	9.03E-05
2081	258714.6	4083913	0.000139	2.36E-03	1.60E-03	1.14E-03	1.39E-04	2.36E-03	1.60E-03	1.14E-03	2.11E-05	4.13E-04	2.63E-04	1.84E-04	1.14E-05	2.59E-04	1.25E-04	9.11E-05
2082	258739.6	4083913	0.00014	2.38E-03	1.61E-03	1.15E-03	1.40E-04	2.38E-03	1.61E-03	1.15E-03	2.12E-05	4.16E-04	2.65E-04	1.86E-04	1.15E-05	2.61E-04	1.26E-04	9.18E-05
2083	258764.6	4083913	0.000141	2.40E-03	1.63E-03	1.16E-03	1.41E-04	2.40E-03	1.63E-03	1.16E-03	2.14E-05	4.19E-04	2.67E-04	1.87E-04	1.16E-05	2.63E-04	1.27E-04	9.25E-05
2084	258789.6	4083913	0.000142	2.42E-03	1.64E-03	1.16E-03	1.42E-04	2.42E-03	1.64E-03	1.16E-03	2.15E-05	4.22E-04	2.69E-04	1.88E-04	1.17E-05	2.65E-04	1.28E-04	9.31E-05
2085	258814.6	4083913	0.000143	2.43E-03	1.65E-03	1.17E-03	1.43E-04	2.43E-03	1.65E-03	1.17E-03	2.17E-05	4.25E-04	2.70E-04	1.90E-04	1.18E-05	2.67E-04	1.29E-04	9.37E-05
2086	258839.6	4083913	0.000144	2.46E-03	1.67E-03	1.18E-03	1.44E-04	2.46E-03	1.67E-03	1.18E-03	2.19E-05	4.29E-04	2.74E-04	1.92E-04	1.19E-05	2.70E-04	1.31E-04	9.48E-05
2087	258864.6	4083913	0.000146	2.48E-03	1.68E-03	1.20E-03	1.46E-04	2.48E-03	1.68E-03	1.20E-03	2.21E-05	4.33E-04	2.76E-04	1.94E-04	1.20E-05	2.72E-04	1.32E-04	9.57E-05
2088	258889.6	4083913	0.000147	2.50E-03	1.70E-03	1.21E-03	1.47E-04	2.50E-03	1.70E-03	1.21E-03	2.23E-05	4.37E-04	2.79E-04	1.95E-04	1.21E-05	2.75E-04	1.33E-04	9.66E-05
2089	258914.6	4083913	0.000149	2.54E-03	1.72E-03	1.22E-03	1.49E-04	2.54E-03	1.72E-03	1.22E-03	2.27E-05	4.44E-04	2.83E-04	1.98E-04	1.23E-05	2.79E-04	1.35E-04	9.80E-05
2090	258939.6	4083913	0.000153	2.61E-03	1.77E-03	1.26E-03	1.53E-04	2.61E-03	1.77E-03	1.26E-03	2.33E-05	4.56E-04	2.90E-04	2.03E-04	1.26E-05	2.86E-04	1.38E-04	1.01E-04
2091	258964.6	4083913	0.000157	2.68E-03	1.82E-03	1.29E-03	1.57E-04	2.68E-03	1.82E-03	1.29E-03	2.39E-05	4.69E-04	2.99E-04	2.09E-04	1.30E-05	2.95E-04	1.42E-04	1.03E-04
2092	258989.6	4083913	0.000164	2.79E-03	1.89E-03	1.34E-03	1.64E-04	2.79E-03	1.89E-03	1.34E-03	2.49E-05	4.87E-04	3.10E-04	2.18E-04	1.35E-05	3.06E-04	1.48E-04	1.08E-04
2093	259014.6	4083913	0.000172	2.94E-03	1.99E-03	1.42E-03	1.72E-04	2.94E-03	1.99E-03	1.42E-03	2.62E-05	5.13E-04	3.27E-04	2.29E-04	1.42E-05	3.23E-04	1.56E-04	1.13E-04
2094	259039.6	4083913	0.000183	3.12E-03	2.12E-03	1.50E-03	1.83E-04	3.12E-03	2.12E-03	1.50E-03	2.78E-05	5.45E-04	3.48E-04	2.44E-04	1.51E-05	3.43E-04	1.66E-04	1.20E-04
2095	259064.6	4083913	0.000195	3.33E-03	2.26E-03	1.60E-03	1.95E-04	3.33E-03	2.26E-03	1.60E-03	2.97E-05	5.81E-04	3.70E-04	2.60E-04	1.61E-05	3.65E-04	1.77E-04	1.28E-04
2096	258364.6	4083938	0.000118	2.01E-03	1.36E-03	9.68E-04	1.18E-04	2.01E-03	1.36E-03	9.68E-04	1.79E-05	3.51E-04	2.24E-04	1.57E-04	9.74E-06	2.21E-04	1.07E-04	7.75E-05
2097	258389.6	4083938	0.00012	2.05E-03	1.39E-03	9.88E-04	1.20E-04	2.05E-03	1.39E-03	9.88E-04	1.83E-05	3.58E-04	2.28E-04	1.60E-04	9.93E-06	2.25E-04	1.09E-04	7.91E-05
2098	258414.6	4083938	0.000123	2.09E-03	1.42E-03	1.01E-03	1.23E-04	2.09E-03	1.42E-03	1.01E-03	1.87E-05	3.66E-04	2.33E-04	1.63E-04	1.01E-05	2.30E-04	1.11E-04	8.08E-05
2099	258439.6	4083938	0.000125	2.14E-03	1.45E-03	1.03E-03	1.25E-04	2.14E-03	1.45E-03	1.03E-03	1.91E-05	3.74E-04	2.38E-04	1.67E-04	1.04E-05	2.35E-04	1.14E-04	8.25E-05
2100	258464.6	4083938	0.000128	2.18E-03	1.48E-03	1.05E-03	1.28E-04	2.18E-03	1.48E-03	1.05E-03	1.95E-05	3.81E-04	2.43E-04	1.70E-04	1.06E-05	2.40E-04	1.16E-04	8.41E-05
2101	258489.6	4083938	0.00013	2.22E-03	1.51E-03	1.07E-03	1.30E-04	2.22E-03	1.51E-03	1.07E-03	1.98E-05	3.88E-04	2.47E-04	1.73E-04	1.08E-05	2.44E-04	1.18E-04	8.57E-05
2102	258514.6	4083938	0.000133	2.26E-03	1.53E-03	1.09E-03	1.33E-04	2.26E-03	1.53E-03	1.09E-03	2.02E-05	3.95E-04	2.52E-04	1.76E-04	1.10E-05	2.48E-04	1.20E-04	8.72E-05
2103	258539.6	4083938	0.000135	2.30E-03	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.05E-05	4.02E-04	2.56E-04	1.79E-04	1.11E-05	2.53E-04	1.22E-04	8.87E-05
2104	258564.6	4083938	0.000138	2.34E-03	1.59E-03	1.13E-03	1.38E-04	2.34E-03	1.59E-03	1.13E-03	2.09E-05	4.10E-04	2.61E-04	1.83E-04	1.14E-05	2.57E-04	1.24E-04	9.04E-05
2105	258589.6	4083938	0.00014	2.39E-03	1.62E-03	1.15E-03	1.40E-04	2.39E-03	1.62E-03	1.15E-03	2.13E-05	4.17E-04	2.66E-04	1.86E-04	1.16E-05	2.62E-04	1.27E-04	9.21E-05
2106	258614.6	4083938	0.000142	2.42E-03	1.64E-03	1.17E-03	1.42E-04	2.42E-03	1.64E-03	1.17E-03	2.16E-05	4.23E-04	2.70E-04	1.89E-04	1.17E-05	2.66E-04	1.29E-04	9.35E-05
2107	258639.6	4083938	0.000144	2.46E-03	1.67E-03	1.19E-03	1.44E-04	2.46E-03	1.67E-03	1.19E-03	2.20E-05	4.30E-04	2.74E-04	1.92E-04	1.19E-05	2.70E-04	1.31E-04	9.50E-05
2108	258664.6	4083938	0.000147	2.50E-03	1.70E-03	1.21E-03	1.47E-04	2.50E-03	1.70E-03	1.21E-03	2.23E-05	4.37E-04	2.79E-04	1.95E-04	1.21E-05	2.75E-04	1.33E-04	9.65E-05
2109	258689.6	4083938	0.000149	2.53E-03	1.72E-03	1.22E-03	1.49E-04	2.53E-03	1.72E-03	1.22E-03	2.26E-05	4.43E-04	2.82E-04	1.98E-04	1.23E-05	2.78E-04	1.35E-04	9.77E-05
2110	258714.6	4083938	0.00015	2.56E-03	1.74E-03	1.23E-03	1.50E-04	2.56E-03	1.74E-03	1.23E-03	2.28E-05	4.47E-04	2.85E-04	2.00E-04	1.24E-05	2.81E-04	1.36E-04	9.88E-05
2111	258739.6	4083938	0.000152	2.59E-03	1.75E-03	1.25E-03	1.52E-04	2.59E-03	1.75E-03	1.25E-03	2.31E-05	4.52E-04	2.88E-04	2.02E-04	1.25E-05	2.84E-04	1.37E-04	9.97E-05
2112	258764.6	4083938	0.000153	2.61E-03	1.77E-03	1.26E-03	1.53E-04	2.61E-03	1.77E-03	1.26E-03	2.33E-05	4.56E-04	2.90E-04	2.04E-04	1.26E-05	2.86E-04	1.38E-04	1.01E-04
2113	258789.6	4083938	0.000154	2.63E-03	1.78E-03	1.27E-03	1.54E-04	2.63E-03	1.78E-03	1.27E-03	2.34E-05	4.59E-04	2.93E-04	2.05E-04	1.27E-05	2.89E-04	1.40E-04	1.01E-04
2114	258814.6	4083938	0.000155	2.65E-03	1.79E-03	1.27E-03	1.55E-04	2.65E-03	1.79E-03	1.27E-03	2.36E-05	4.62E-04	2.94E-04	2.06E-04	1.28E-05	2.90E-04	1.40E-04	1.02E-04
2115	258839.6	4083938	0.000156	2.67E-03	1.81E-03	1.28E-03	1.56E-04	2.67E-03	1.81E-03	1.28E-03	2.38E-05	4.66E-04	2.97E-04	2.08E-04	1.29E-05	2.93E-04	1.42E-04	1.03E-04
2116	258864.6	4083938	0.000158	2.69E-03	1.83E-03	1.30E-03	1.58E-04	2.69E-03	1.83E-03	1.30E-03	2.40E-05	4.70E-04	3.00E-04	2.10E-04	1.30E-05	2.96E-04	1.43E-04	1.04E-04
2117	258889.6	4083938	0.00016	2.72E-03	1.85E-03	1.31E-03	1.60E-04	2.72E-03	1.85E-03	1.31E-03	2.43E-05	4.75E-04	3.03E-04	2.12E-04	1.32E-05	2.99E-04	1.44E-04	1.05E-04
2118	258914.6	4083938	0.000162	2.76E-03	1.87E-03	1.33E-03	1.62E-04	2.76E-03	1.87E-03	1.33E-03	2.46E-05	4.82E-04	3.07E-04	2.15E-04	1.34E-05	3.03E-04	1.47E-04	1.06E-04
2119	258939.6	4083938	0.000166	2.84E-03	1.92E-03	1.37E-03	1.66E-04	2.84E-03	1.92E-03	1.37E-03	2.53E-05	4.95E-04	3.16E-04	2.21E-04	1.37E-05	3.11E-04	1.51E-04	1.09E-04
2120	258964.6	4083938	0.000172	2.92E-03	1.98E-03	1.41E-03	1.72E-04	2.92E-03	1.98E-03	1.41E-03	2.61E-05	5.11E-04	3.26E-04	2.28E-04	1.42E-05	3.21E-04	1.55E-04	1.13E-04
2121	258989.6	4083938	0.00018	3.07E-03	2.08E-03	1.48E-03	1.80E-04	3.07E-03	2.08E-03	1.48E-03	2.74E-05	5.36E-04	3.41E-04	2.39E-04	1.49E-05	3.37E-04	1.63E-04	1.18E-04
2122	259014.6	4083938	0.000191	3.25E-03	2.21E-03	1.57E-03	1.91E-04	3.25E-03	2.21E-03	1.57E-03	2.90E-05	5.68E-04	3.62E-04	2.54E-04	1.58E-05	3.57E-04	1.73E-04	1.25E-04
2123	259039.6	4083938	0.000204	3.48E-03	2.36E-03	1.68E-03	2.04E-04	3.48E-03	2.36E-03	1.68E-03	3.10E-05	6.08E-04	3.87E-04	2.72E-04	1.69E-05	3.82E-04	1.85E-04	1.34E-04
2124	259064.6	4083938	0.000219	3.74E-03	2.53E-03	1.80E-03	2.19E-04	3.74E-03	2.53E-03	1.80E-03	3.33E-05	6.53E-04	4.16E-04	2.92E-04	1.81E-05	4.10E-04	1.98E-04	1.44E-04
2125	259089.6	4083938	0.000235	4.01E-03	2.72E-03	1.93E-03	2.35E-04	4.01E-03	2.72E-03	1.93E-03	3.58E-05	7.01E-04	4.46E-04	3.13E-04	1.94E-05	4.40E-04	2.13E-04	1.55E-04
2126	259114.6	4083938	0.000251	4.28E-03	2.90E-03	2.06E-03	2.51E-04	4.28E-03	2.90E-03	2.06E-03	3.82E-05	7.48E-04	4.77E-04	3.34E-04	2.08E-05	4.70E-04	2.27E-04	1.65E-04
2127	258364.6	4083963	0.000124	2.11E-03	1.43E-03	1.02E-03	1.24E-04	2.11E-03	1.43E-03	1.02E-03	1.88E-05	3.68E-04	2.35E-04	1.64E-04	1.02E-05	2.31E-04	1.12E-04	8.13E-05
2128	258389.6	4083963	0.000127	2.16E-03	1.46E-03	1.04E-03	1.27E-04	2.16E-03	1.46E-03	1.04E-03	1.92E-05	3.77E-04	2.40E-04	1.68E-04	1.05E-05	2.37E-04	1.15E-04	8.32E-05
2129	258414.6	4083963	0.00013	2.21E-03	1.50E-03	1.06E-03	1.30E-04	2.21E-03	1.50E-03	1.06E-03	1.97E-05	3.86E-04	2.46E-04	1.72E-04	1.07E-05	2.43E-04	1.17E-04	8.52E-05

2145	258814.6	4083963	0.00017	2.89E-03	1.96E-03	1.39E-03	1.70E-04	2.89E-03	1.96E-03	1.39E-03	2.58E-05	5.05E-04	3.22E-04	2.26E-04	1.40E-05	3.18E-04	1.54E-04	1.12E-04
2146	258839.6	4083963	0.000171	2.91E-03	1.97E-03	1.40E-03	1.71E-04	2.91E-03	1.97E-03	1.40E-03	2.59E-05	5.08E-04	3.24E-04	2.27E-04	1.41E-05	3.19E-04	1.54E-04	1.12E-04
2147	258864.6	4083963	0.000172	2.93E-03	1.99E-03	1.41E-03	1.72E-04	2.93E-03	1.99E-03	1.41E-03	2.62E-05	5.12E-04	3.26E-04	2.29E-04	1.42E-05	3.22E-04	1.56E-04	1.13E-04
2148	258889.6	4083963	0.000174	2.96E-03	2.01E-03	1.43E-03	1.74E-04	2.96E-03	2.01E-03	1.43E-03	2.64E-05	5.17E-04	3.29E-04	2.31E-04	1.43E-05	3.25E-04	1.57E-04	1.14E-04
2149	258914.6	4083963	0.000176	3.00E-03	2.04E-03	1.45E-03	1.76E-04	3.00E-03	2.04E-03	1.45E-03	2.68E-05	5.24E-04	3.34E-04	2.34E-04	1.45E-05	3.30E-04	1.59E-04	1.16E-04
2150	258939.6	4083963	0.000182	3.10E-03	2.10E-03	1.49E-03	1.82E-04	3.10E-03	2.10E-03	1.49E-03	2.77E-05	5.42E-04	3.45E-04	2.42E-04	1.50E-05	3.40E-04	1.65E-04	1.20E-04
2151	258964.6	4083963	0.000189	3.22E-03	2.18E-03	1.55E-03	1.89E-04	3.22E-03	2.18E-03	1.55E-03	2.87E-05	5.62E-04	3.58E-04	2.51E-04	1.56E-05	3.53E-04	1.71E-04	1.24E-04
2152	258989.6	4083963	0.000199	3.40E-03	2.30E-03	1.64E-03	1.99E-04	3.40E-03	2.30E-03	1.64E-03	3.03E-05	5.93E-04	3.78E-04	2.65E-04	1.65E-05	3.73E-04	1.80E-04	1.31E-04
2153	259014.6	4083963	0.000213	3.63E-03	2.46E-03	1.75E-03	2.13E-04	3.63E-03	2.46E-03	1.75E-03	3.24E-05	6.34E-04	4.04E-04	2.83E-04	1.76E-05	3.99E-04	1.93E-04	1.40E-04
2154	259039.6	4083963	0.00023	3.92E-03	2.66E-03	1.89E-03	2.30E-04	3.92E-03	2.66E-03	1.89E-03	3.50E-05	6.85E-04	4.37E-04	3.06E-04	1.90E-05	4.31E-04	2.08E-04	1.51E-04
2155	259064.6	4083963	0.00025	4.26E-03	2.89E-03	2.05E-03	2.50E-04	4.26E-03	2.89E-03	2.05E-03	3.80E-05	7.44E-04	4.74E-04	3.32E-04	2.06E-05	4.67E-04	2.26E-04	1.64E-04
2156	259089.6	4083963	0.000269	4.59E-03	3.11E-03	2.21E-03	2.69E-04	4.59E-03	3.11E-03	2.21E-03	4.09E-05	8.02E-04	5.11E-04	3.58E-04	2.22E-05	5.04E-04	2.44E-04	1.77E-04
2157	259114.6	4083963	0.000288	4.90E-03	3.33E-03	2.36E-03	2.88E-04	4.90E-03	3.33E-03	2.36E-03	4.37E-05	8.57E-04	5.46E-04	3.83E-04	2.38E-05	5.38E-04	2.60E-04	1.89E-04
2158	259139.6	4083963	0.000304	5.18E-03	3.51E-03	2.50E-03	3.04E-04	5.18E-03	3.51E-03	2.50E-03	4.62E-05	9.06E-04	5.77E-04	4.04E-04	2.51E-05	5.69E-04	2.75E-04	2.00E-04
2159	258364.6	4083988	0.000129	2.21E-03	1.50E-03	1.06E-03	1.29E-04	2.21E-03	1.50E-03	1.06E-03	1.97E-05	3.85E-04	2.46E-04	1.72E-04	1.07E-05	2.42E-04	1.17E-04	8.51E-05
2160	258389.6	4083988	0.000133	2.27E-03	1.54E-03	1.09E-03	1.33E-04	2.27E-03	1.54E-03	1.09E-03	2.02E-05	3.96E-04	2.52E-04	1.77E-04	1.10E-05	2.49E-04	1.20E-04	8.74E-05
2161	258414.6	4083988	0.000136	2.33E-03	1.58E-03	1.12E-03	1.36E-04	2.33E-03	1.58E-03	1.12E-03	2.07E-05	4.06E-04	2.59E-04	1.81E-04	1.13E-05	2.55E-04	1.23E-04	8.97E-05
2162	258439.6	4083988	0.00014	2.38E-03	1.61E-03	1.15E-03	1.40E-04	2.38E-03	1.61E-03	1.15E-03	2.12E-05	4.16E-04	2.65E-04	1.86E-04	1.15E-05	2.61E-04	1.26E-04	9.18E-05
2163	258464.6	4083988	0.000143	2.44E-03	1.65E-03	1.17E-03	1.43E-04	2.44E-03	1.65E-03	1.17E-03	2.17E-05	4.26E-04	2.71E-04	1.90E-04	1.18E-05	2.68E-04	1.29E-04	9.40E-05
2164	258489.6	4083988	0.000146	2.50E-03	1.69E-03	1.20E-03	1.46E-04	2.50E-03	1.69E-03	1.20E-03	2.23E-05	4.36E-04	2.78E-04	1.95E-04	1.21E-05	2.74E-04	1.32E-04	9.62E-05
2165	258514.6	4083988	0.00015	2.55E-03	1.73E-03	1.23E-03	1.50E-04	2.55E-03	1.73E-03	1.23E-03	2.28E-05	4.46E-04	2.84E-04	1.99E-04	1.24E-05	2.80E-04	1.36E-04	9.85E-05
2166	258539.6	4083988	0.000153	2.61E-03	1.77E-03	1.26E-03	1.53E-04	2.61E-03	1.77E-03	1.26E-03	2.33E-05	4.56E-04	2.91E-04	2.04E-04	1.26E-05	2.87E-04	1.39E-04	1.01E-04
2167	258564.6	4083988	0.000157	2.67E-03	1.81E-03	1.29E-03	1.57E-04	2.67E-03	1.81E-03	1.29E-03	2.39E-05	4.67E-04	2.98E-04	2.09E-04	1.30E-05	2.94E-04	1.42E-04	1.03E-04
2168	258589.6	4083988	0.000161	2.74E-03	1.86E-03	1.32E-03	1.61E-04	2.74E-03	1.86E-03	1.32E-03	2.44E-05	4.78E-04	3.05E-04	2.14E-04	1.33E-05	3.01E-04	1.45E-04	1.06E-04
2169	258614.6	4083988	0.000164	2.80E-03	1.90E-03	1.35E-03	1.64E-04	2.80E-03	1.90E-03	1.35E-03	2.50E-05	4.89E-04	3.12E-04	2.18E-04	1.36E-05	3.07E-04	1.49E-04	1.08E-04
2170	258639.6	4083988	0.000168	2.86E-03	1.94E-03	1.38E-03	1.68E-04	2.86E-03	1.94E-03	1.38E-03	2.55E-05	4.99E-04	3.18E-04	2.23E-04	1.38E-05	3.14E-04	1.52E-04	1.10E-04
2171	258664.6	4083988	0.000171	2.91E-03	1.97E-03	1.40E-03	1.71E-04	2.91E-03	1.97E-03	1.40E-03	2.60E-05	5.08E-04	3.24E-04	2.27E-04	1.41E-05	3.19E-04	1.55E-04	1.12E-04
2172	258689.6	4083988	0.000174	2.97E-03	2.02E-03	1.43E-03	1.74E-04	2.97E-03	2.02E-03	1.43E-03	2.65E-05	5.19E-04	3.31E-04	2.32E-04	1.44E-05	3.26E-04	1.58E-04	1.15E-04
2173	258714.6	4083988	0.000178	3.03E-03	2.05E-03	1.46E-03	1.78E-04	3.03E-03	2.05E-03	1.46E-03	2.70E-05	5.29E-04	3.37E-04	2.36E-04	1.47E-05	3.33E-04	1.61E-04	1.17E-04
2174	258739.6	4083988	0.000181	3.08E-03	2.09E-03	1.48E-03	1.81E-04	3.08E-03	2.09E-03	1.48E-03	2.75E-05	5.38E-04	3.43E-04	2.40E-04	1.49E-05	3.38E-04	1.63E-04	1.19E-04
2175	258764.6	4083988	0.000183	3.12E-03	2.11E-03	1.50E-03	1.83E-04	3.12E-03	2.11E-03	1.50E-03	2.78E-05	5.45E-04	3.47E-04	2.43E-04	1.51E-05	3.42E-04	1.66E-04	1.20E-04
2176	258789.6	4083988	0.000185	3.15E-03	2.14E-03	1.52E-03	1.85E-04	3.15E-03	2.14E-03	1.52E-03	2.81E-05	5.50E-04	3.51E-04	2.46E-04	1.53E-05	3.46E-04	1.67E-04	1.22E-04
2177	258814.6	4083988	0.000186	3.18E-03	2.15E-03	1.53E-03	1.86E-04	3.18E-03	2.15E-03	1.53E-03	2.83E-05	5.55E-04	3.54E-04	2.48E-04	1.54E-05	3.49E-04	1.69E-04	1.23E-04
2178	258839.6	4083988	0.000188	3.20E-03	2.17E-03	1.54E-03	1.88E-04	3.20E-03	2.17E-03	1.54E-03	2.85E-05	5.58E-04	3.56E-04	2.49E-04	1.55E-05	3.51E-04	1.70E-04	1.23E-04
2179	258864.6	4083988	0.000188	3.21E-03	2.18E-03	1.55E-03	1.88E-04	3.21E-03	2.18E-03	1.55E-03	2.86E-05	5.61E-04	3.57E-04	2.51E-04	1.56E-05	3.53E-04	1.71E-04	1.24E-04
2180	258889.6	4083988	0.000189	3.23E-03	2.19E-03	1.56E-03	1.89E-04	3.23E-03	2.19E-03	1.56E-03	2.88E-05	5.64E-04	3.59E-04	2.52E-04	1.56E-05	3.54E-04	1.71E-04	1.24E-04
2181	258914.6	4083988	0.000192	3.27E-03	2.22E-03	1.58E-03	1.92E-04	3.27E-03	2.22E-03	1.58E-03	2.92E-05	5.72E-04	3.64E-04	2.55E-04	1.59E-05	3.59E-04	1.74E-04	1.26E-04
2182	258939.6	4083988	0.000199	3.40E-03	2.30E-03	1.64E-03	1.99E-04	3.40E-03	2.30E-03	1.64E-03	3.03E-05	5.93E-04	3.78E-04	2.65E-04	1.65E-05	3.73E-04	1.80E-04	1.31E-04
2183	258964.6	4083988	0.000209	3.56E-03	2.41E-03	1.71E-03	2.09E-04	3.56E-03	2.41E-03	1.71E-03	3.17E-05	6.22E-04	3.96E-04	2.78E-04	1.72E-05	3.91E-04	1.89E-04	1.37E-04
2184	258989.6	4083988	0.000222	3.79E-03	2.57E-03	1.82E-03	2.22E-04	3.79E-03	2.57E-03	1.82E-03	3.38E-05	6.61E-04	4.21E-04	2.95E-04	1.83E-05	4.16E-04	2.01E-04	1.46E-04
2185	259014.6	4083988	0.00024	4.10E-03	2.78E-03	1.97E-03	2.40E-04	4.10E-03	2.78E-03	1.97E-03	3.65E-05	7.16E-04	4.56E-04	3.20E-04	1.98E-05	4.50E-04	2.17E-04	1.58E-04
2186	259039.6	4083988	0.000263	4.49E-03	3.04E-03	2.16E-03	2.63E-04	4.49E-03	3.04E-03	2.16E-03	4.00E-05	7.84E-04	4.99E-04	3.50E-04	2.17E-05	4.92E-04	2.38E-04	1.73E-04
2187	259064.6	4083988	0.000288	4.91E-03	3.33E-03	2.36E-03	2.88E-04	4.91E-03	3.33E-03	2.36E-03	4.38E-05	8.57E-04	5.46E-04	3.83E-04	2.38E-05	5.38E-04	2.60E-04	1.89E-04
2188	259089.6	4083988	0.000311	5.30E-03	3.59E-03	2.55E-03	3.11E-04	5.30E-03	3.59E-03	2.55E-03	4.72E-05	9.25E-04	5.89E-04	4.13E-04	2.57E-05	5.81E-04	2.81E-04	2.04E-04
2189	259114.6	4083988	0.000331	5.65E-03	3.83E-03	2.72E-03	3.31E-04	5.65E-03	3.83E-03	2.72E-03	5.04E-05	9.86E-04	6.29E-04	4.41E-04	2.74E-05	6.20E-04	3.00E-04	2.18E-04
2190	259139.6	4083988	0.000349	5.94E-03	4.03E-03	2.86E-03	3.49E-04	5.94E-03	4.03E-03	2.86E-03	5.30E-05	1.04E-03	6.61E-04	4.64E-04	2.88E-05	6.52E-04	3.15E-04	2.29E-04
2191	259164.6	4083988	0.000362	6.17E-03	4.18E-03	2.97E-03	3.62E-04	6.17E-03	4.18E-03	2.97E-03	5.50E-05	1.08E-03	6.87E-04	4.81E-04	2.99E-05	6.77E-04	3.27E-04	2.38E-04
2192	258364.6	4084013	0.000135	2.30E-03	1.56E-03	1.11E-03	1.35E-04	2.30E-03	1.56E-03	1.11E-03	2.06E-05	4.03E-04	2.57E-04	1.80E-04	1.12E-05	2.53E-04	1.22E-04	8.89E-05
2193	258389.6	4084013	0.000139	2.37E-03	1.61E-03	1.14E-03	1.39E-04	2.37E-03	1.61E-03	1.14E-03	2.12E-05	4.14E-04	2.64E-04	1.85E-04	1.15E-05	2.60E-04	1.26E-04	9.15E-05
2194	258414.6	4084013	0.000143	2.44E-03	1.65E-03	1.17E-03	1.43E-04	2.44E-03	1.65E-03	1.17E-03	2.17E-05	4.26E-04	2.71E-04	1.90E-04	1.18E-05	2.68E-04	1.29E-04	9.40E-05
2195	258439.6	4084013	0.000147	2.50E-03	1.70E-03	1.21E-03	1.47E-04	2.50E-03	1.70E-03	1.21E-03	2.23E-05	4.37E-04	2.79E-04	1.95E-04	1.21E-05	2.75E-04	1.33E-04	9.65E-05
2196	258464.6	4084013	0.000151	2.57E-03	1.74E-03	1.24E-03	1.51E-04	2.57E-03	1.74E-03	1.24E-03	2.29E-05	4.49E-04	2.86E-04	2.00E-04	1.24E-05	2.82E-04	1.36E-04	9.90E-05
2197	258489.6	4084013	0.000155	2.64E-03	1.79E-03	1.27E-03	1.55E-04	2.64E-03	1.79E-03	1.27E-03	2.35E-05	4.60E-04	2.93E-04	2.06E-04	1.28E-05	2.89E-04	1.40E-04	1.02E-04
2198	258514.6	4084013	0.000159	2.70E-03	1.83E-03	1.30E-03	1.59E-04	2.70E-03	1.83E-03	1.30E-03	2.41E-05	4.72E-04	3.01E-04	2.11E-04	1.31E-05	2.97E-04	1.44E-04	1.04E-04
2199	258539.6	4084013	0.000163	2.77E-03	1.88E-03	1.34E-03	1.63E-04	2.77E-03	1.88E-03	1.34E-03	2.47E-05	4.84E-04	3.09E-04	2.16E-04	1.34E-05	3.04E-04	1.47E-04	1.07E-04
2200	258564.6	4084013	0.000167	2.84E-03	1.93E-03	1.37E-03	1.67E-04	2.84E-03	1.93E-03	1.37E-03	2.54E-05	4.97E-04	3.16E-04	2.22E-04	1.38E-05	3.12E-04	1.51E-04	1.10E-04
2201	258589.6	4084013	0.000171	2.92E-03	1.98E-03	1.41E-03	1.71E-04	2.92E-03	1.98E-03	1.41E-03	2.60E-05	5.10E-04	3.25E-04	2.28E-04	1.41E-05	3.21E-04	1.55E-04	1.13E-04
2202	258614.6	4084013	0.000176	3.00E-03	2.04E-03	1.45E-03	1.76E-04	3.00E-03	2.04E-03	1.45E-03	2.68E-05	5.25E-04	3.34E-04	2.34E-04	1.45E-05	3.30E-04	1.59E-04	1.16E-04
2203	258639.6	4084013	0.00018	3.07E-03	2.08E-03	1.48E-03	1.80E-04	3.07E-03	2.08E-03	1.48E-03	2.74E-05	5.37E-04	3.42E-04	2.40E-04	1.49E-05	3.37E-04	1.63E-04	1.19E-04
2204	258664.6	4084013	0.000184	3.14E-03	2.13E-03	1.51E-03	1.84E-04	3.14E-03	2.13E-03	1.51E-03	2.80E-05	5.49E-04	3.50E-04	2.45E-04	1.52E-05	3.45E-04	1.67E-04	1.21E-04
2205	258689.6	4084013	0.000188	3.21E-03	2.18E-03	1.55E-03	1.88E-04	3.21E-03	2.18E-03	1.55E-03	2.86E-05	5.61E-04	3.57E-04	2.51E-04	1.56E-05	3.53E-04	1.70E-04	1.24E-04
2206	258714.6	4084013	0.000193	3.29E-03	2.23E-03	1.58E-03	1.93E-04	3.29E-03	2.23E-03	1.58E-03	2.93E-05	5.74E-04	3.66E-04	2.57E-04	1.59E-05	3.61E-04	1.75E-04	1.27E-04
2207	258739.6	4084013	0.000197	3.36E-03	2.28E-03	1.62E-03	1.97E-04	3.36E-03	2.28E-03	1.62E-03	3.00E-05	5.87E-04	3.74E-04	2.62E-04	1.63E-05	3.69E-04	1.78E-04	1.30E-04
2208	258764.6	4084013	0.000201	3.42E-03	2.32E-03	1.65E-03	2.01E-04	3.42E-03	2.32E-03	1.65E-03	3.05E-05	5.97E-04	3.81E-04	2.67E-04	1.66E-05	3.75E-04	1.82E-04	1.32E-04
2209	258789.6	4084013	0.000203	3.47E-03	2.35E-03	1.67E-03	2.03E-04	3.47E-03	2.35E-03	1.67E-03	3.09E-05	6.05E-04	3.86E-04	2.70E-04	1.68E-05	3.80E-04	1.84E-04	1.34E-04
2210	258814.6	4084013	0.000205	3.50E-03	2.37E-03	1.69E-03	2.05E-04	3.50E-03	2.37E-03	1.69E-03	3.12E-05	6.12E-04	3.90E-04	2.73E-04	1.70E-05	3.84E-04	1.86E-04	1.35E-04
2211	258839.6	4084013	0.000207	3.53E-03	2.39E-03	1.70E-03	2.07E-04	3.53E-03	2.39E-03	1.70E-03	3.15E-05	6.16E-04	3.93E-04	2.75E-04	1.71E-05	3.87E-04	1.87E-04	1.36E-04
2212	258864.6	4084013	0.000208	3.54E-03	2.40E-03	1.71E-03	2.08E-04	3.54E-03	2.40E-03	1.71E-03	3.16E-05	6.18E-04	3.94E-04	2.76E-04	1.71E-05	3.89E-04	1.88E-04	1.36E-04
2213	258889.6	4084013	0.000208	3.55E-03	2.41E-03	1.71E-03	2.08E-04	3.55E-03	2.41E-03	1.71E-03	3.16E-05	6.20E-04	3.95E-04	2.77E-04	1.72E-05	3.89E-04	1.88E-04	1.37E-04
2214	258914.6	4084013	0.00021	3.59E-03	2.43E-03	1.73E-03	2.10E-04	3.59E-03	2.43E-03	1.73E-03	3.20E-05	6.26E-04	3.99E-04	2.80E-04	1.74E-05	3.94E-04	1.90E-04	1.38E-04
2215	258939.6	4084013	0.000219	3.73E-03	2.53E-03	1.80E-03	2.19E-04	3.73E-03	2.53E-03	1.80E-03	3.32E-05	6.51E-04	4.15E-04	2.91E-04	1.81E-05	4.09E-04	1.98E-04	1.44E-04
2216	258964.6	4084013	0.00023	3.92E-03	2.66E-03	1.89E-03	2.30E-04	3.92E-03	2.66E-03	1.89E-03	3.50E-05	6.85E-04	4.37E-04	3.06E-04	1.90E-05	4.31E-04	2.08E-04	1.51E-04
2217	258989.6	4084013	0.000249	4.25E-03	2.88E-03	2.05E-03	2.49E-04	4.25E-03	2.88E-03	2.05E-03	3.79E-05	7.43E-04	4.73E-04	3.32E-04	2.06E-05	4.67E-04	2.26E-04	1.64E-04
2218	259014.6	4084013	0.000275	4.68E-03	3.18E-03	2.26E-03	2.75E-04	4.68E-03	3.18E-03	2.26E-03	4.18E-05	8.18E-04	5.21E-04	3.65E-04	2.27E-05	5.14E-04	2.49E-04	1.81E-04
2219	259039.6	4084013	0.000303	5.17E-03	3.51E-03	2.49E-03	3.03E-04	5.17E-03	3.51E-03	2.49E-03	4.61E-05	9.04E-04	5.76E-04	4.04E-04	2.51E-05	5.68E-04	2.75E-04	1.99E-04
2220	259064.6	4084013	0.000332	5.66E-03	3.84E-03	2.73E-03	3.32E-04	5.66E-03	3.84E-03	2.73E-03	5.05E-05	9.88E-04	6.30E-04	4.41E-04	2.74E-05	6.21E-04	3.00E-04	2.18E-04
2221	259089.6	4084013	0.000358	6.10E-03	4.13E-03	2.94E-03	3.58E-04	6.10E-03	4.13E-03	2.94E-03	5.44E-05	1.07E-03	6.79E-04	4.76E-04	2.95E-05	6.69E-04	3.24E-04	2.35E-04
2222	259114.6	4084013	0.00038	6.47E-03	4.39E-03	3.12E-03	3.80E-04	6.47E-03	4.39E-03	3.12E-03	5.77E-05	1.13E-03	7.21E-04	5.05E-04	3.14E-05	7.11E-04	3.44E-04	2.50E-04
2223	259139.6	4084013	0.000397	6.78E-03	4.59E-03	3.27E-03	3.97E-04	6.78E-03	4.59E-03	3.27E-03	6.04E-05	1.18E-03	7.54E-04	5.29E-04	3.28E-05	7.44E-04	3.60E-04	2.61E-04
2224	259164.6	4084013	0.00041	6.99E-03	4.74E-03	3.37E-03	4.10E-04	6.99E-03	4.74E-03	3.37E-03	6.24E-05	1.22E-03	7.78E-04	5.45E-04	3.39E-05	7.68E-04	3.71E-04	2.70E-04
2225	258364.6	4084038	0.000141	2.41E-03	1.63E-03	1.16E-03	1.41E-04	2.41E-03	1.63E-03	1.16E-03	2.15E-05	4.21E-04	2.68E-04	1.88E-04	1.17E-05	2.64E-04	1.28E-04	9.29E-05
2226	258389.6	4084038	0.000145	2.48E-03	1.68E-03	1.19E-03	1.45E-04	2.48E-03	1.68E-03	1.19E-03	2.21E-05	4.33E-04	2.76E-04	1.93E-04	1.20E-05	2.72E-04	1.32E-04	9.56E-05
2227	258414.6	4084038	0.00015	2.55E-03	1.73E-03	1.23E-03	1.50E-04	2.55E-03	1.73E-03	1.23E-03	2.27E-05	4.45E-04	2.84E-04	1.99E-04	1.24E-05	2.80E-04	1.35E-04	9.83E-05
2228	258439.6	4084038	0.000154	2.62E-03	1.78E-03	1.26E-03	1.54E-04	2.62E-03	1.78E-03	1.26E-03	2.34E-05	4.58E-04	2.92E-04	2.05E-04	1.27E-05	2.88E-04	1.39E-04	1.01E-04
2229	258464.6	4084038	0.000158	2.70E-03	1.83E-03	1.30E-03	1.58E-04	2.70E-03	1.83E-03	1.30E-03	2.41E-05	4.71E-04	3.00E-04	2.11E-04	1.31E-05	2.96E-04	1.43E-04	1.04E-04
2230	258489.6	4084038	0.000163	2.78E-03	1.88E-03	1.34E-03	1.63E-04	2.78E-03	1.88E-03	1.34E-03	2.48E-05	4.85E-04	3.09E-04	2.17E-04	1.34E-05	3.05E-04	1.47E-04	1.07E-04
2231	258514.6	4084038	0.000168	2.86E-03	1.94E-03	1.38E-03	1.68E-04	2.86E-03	1.94E-03	1.38E-03	2.55E-05	4.99E-04	3.18E-04	2.23E-04	1.38E-05	3.13E-04	1.52E-04	1.10E-04
2232	258539.6	4084038	0.000172	2.94E-03	1.99E-03	1.42E-03	1.72E-04	2.94E-03	1.99E-03	1.42E-03	2.62E-05	5.13E-04	3.27E-04	2.29E-04	1.42E-05	3.22E-04	1.56E-04	1.13E-04
2233	258564.6	4084038	0.000177	3.02E-03	2.05E-03	1.46E-03	1.77E-04	3.02E-03	2.05E-03	1.46E-03	2.69E-05	5.27E-04	3.36E-04	2.36E-04	1.46E-05	3.32E-04	1.60E-04	1.16E-04
2234	258589.6	4084038	0.000183	3.11E-03	2.11E-03	1.50E-03	1.83E-04	3.11E-03	2.11E-03	1.50E-03	2.78E-05	5.44E-04	3.46E-04	2.43E-04	1.51E-05	3.42E-04	1.65E-04	1.20E-04
2235	258614.6	4084038	0.000188	3.21E-03	2.18E-03	1.55E-03	1.88E-04	3.21E-03	2.18E-03	1.55E-03	2.86E-05	5.61E-04	3.57E-04	2.51E-04	1.56E-05	3.53E-04	1.70E-04	1.24E-04
2236	258639.6	4084038	0.000194	3.30E-03	2.24E-03	1.59E-03	1.94E-04	3.30E-03	2.24E-03	1.59E-03	2.94E-05	5.76E-04	3.67E-04	2.57E-04	1.60E-05	3.62E-04	1.75E-04	1.27E-04
2237	258664.6	4084038	0.000199	3.39E-03	2.30E-03	1.63E-03	1.99E-04	3.39E-03	2.30E-03	1.63E-03	3.02E-05	5.92E-04	3.77E-04	2.64E-04	1.64E-05	3.72E-04	1.80E-04	1.31E-04
2238	258689.6	4084038	0.000204	3.47E-03	2.36E-03	1.67E-03	2.04E-04	3.47E-03	2.36E-03	1.67E-03	3.10E-05	6.07E-04	3.87E-04	2.71E-04	1.68E-05	3.81E-04	1.84E-04	1.34E-04
2239	258714.6	4084038	0.000209	3.56E-03	2.41E-03	1.71E-03	2.09E-04	3.56E-03	2.41E-03	1.71E-03	3.17E-05	6.22E-04	3.96E-04	2.78E-04	1.72E-05	3.91E-04	1.89E-04	1.37E-04
2240	258739.6	4084038	0.000214	3.65E-03	2.48E-03	1.76E-03	2.14E-04	3.65E-03	2.48E-03	1.76E-03	3.26E-05	6.38E-04	4.06E-04	2.85E-04	1.77E-05	4.01E-04	1.94E-04	1.41E-04
2241	258764.6	4084038	0.00022	3.75E-03	2.54E-03	1.81E-03	2.20E-04	3.75E-03	2.54E-03	1.81E-03	3.34E-05	6.54E-04	4.17E-04	2.92E-04	1.81E-05	4.11E-04	1.99E-04	1.44E-04
2242	258789.6	4084038	0.000224	3.81E-03	2.58E-03	1.84E-03	2.24E-04	3.81E-03	2.58E-03	1.84E-03	3.40E-05	6.66E-04	4.24E-04	2.97E-04	1.85E-05	4.18E-04	2.02E-04	1.47E-04

2258	258364.6	4084063	0.000147	2.50E-03	1.70E-03	1.21E-03	1.47E-04	2.50E-03	1.70E-03	1.21E-03	2.23E-05	4.37E-04	2.79E-04	1.95E-04	1.21E-05	2.75E-04	1.33E-04	9.66E-05
2259	258389.6	4084063	0.000151	2.58E-03	1.75E-03	1.24E-03	1.51E-04	2.58E-03	1.75E-03	1.24E-03	2.30E-05	4.51E-04	2.87E-04	2.01E-04	1.25E-05	2.83E-04	1.37E-04	9.95E-05
2260	258414.6	4084063	0.000156	2.66E-03	1.80E-03	1.28E-03	1.56E-04	2.66E-03	1.80E-03	1.28E-03	2.37E-05	4.65E-04	2.96E-04	2.07E-04	1.29E-05	2.92E-04	1.41E-04	1.03E-04
2261	258439.6	4084063	0.000161	2.74E-03	1.86E-03	1.32E-03	1.61E-04	2.74E-03	1.86E-03	1.32E-03	2.45E-05	4.79E-04	3.05E-04	2.14E-04	1.33E-05	3.01E-04	1.46E-04	1.06E-04
2262	258464.6	4084063	0.000166	2.83E-03	1.92E-03	1.36E-03	1.66E-04	2.83E-03	1.92E-03	1.36E-03	2.52E-05	4.94E-04	3.15E-04	2.20E-04	1.37E-05	3.10E-04	1.50E-04	1.09E-04
2263	258489.6	4084063	0.000171	2.91E-03	1.98E-03	1.40E-03	1.71E-04	2.91E-03	1.98E-03	1.40E-03	2.60E-05	5.09E-04	3.24E-04	2.27E-04	1.41E-05	3.20E-04	1.55E-04	1.12E-04
2264	258514.6	4084063	0.000176	3.01E-03	2.04E-03	1.45E-03	1.76E-04	3.01E-03	2.04E-03	1.45E-03	2.68E-05	5.25E-04	3.35E-04	2.34E-04	1.46E-05	3.30E-04	1.60E-04	1.16E-04
2265	258539.6	4084063	0.000182	3.10E-03	2.10E-03	1.49E-03	1.82E-04	3.10E-03	2.10E-03	1.49E-03	2.76E-05	5.41E-04	3.45E-04	2.42E-04	1.50E-05	3.40E-04	1.65E-04	1.20E-04
2266	258564.6	4084063	0.000187	3.20E-03	2.17E-03	1.54E-03	1.87E-04	3.20E-03	2.17E-03	1.54E-03	2.85E-05	5.58E-04	3.56E-04	2.49E-04	1.55E-05	3.51E-04	1.70E-04	1.23E-04
2267	258589.6	4084063	0.000194	3.30E-03	2.24E-03	1.59E-03	1.94E-04	3.30E-03	2.24E-03	1.59E-03	2.95E-05	5.77E-04	3.68E-04	2.58E-04	1.60E-05	3.63E-04	1.75E-04	1.27E-04
2268	258614.6	4084063	0.000201	3.42E-03	2.32E-03	1.65E-03	2.01E-04	3.42E-03	2.32E-03	1.65E-03	3.05E-05	5.98E-04	3.81E-04	2.67E-04	1.66E-05	3.76E-04	1.82E-04	1.32E-04
2269	258639.6	4084063	0.000207	3.53E-03	2.39E-03	1.70E-03	2.07E-04	3.53E-03	2.39E-03	1.70E-03	3.15E-05	6.16E-04	3.93E-04	2.75E-04	1.71E-05	3.87E-04	1.87E-04	1.36E-04
2270	258664.6	4084063	0.000213	3.63E-03	2.46E-03	1.75E-03	2.13E-04	3.63E-03	2.46E-03	1.75E-03	3.24E-05	6.35E-04	4.05E-04	2.84E-04	1.76E-05	3.99E-04	1.93E-04	1.40E-04
2271	258689.6	4084063	0.00022	3.74E-03	2.54E-03	1.80E-03	2.20E-04	3.74E-03	2.54E-03	1.80E-03	3.34E-05	6.54E-04	4.17E-04	2.92E-04	1.81E-05	4.11E-04	1.99E-04	1.44E-04
2272	258714.6	4084063	0.000226	3.85E-03	2.61E-03	1.85E-03	2.26E-04	3.85E-03	2.61E-03	1.85E-03	3.43E-05	6.72E-04	4.28E-04	3.00E-04	1.86E-05	4.23E-04	2.04E-04	1.48E-04
2273	258739.6	4084063	0.000232	3.96E-03	2.68E-03	1.91E-03	2.32E-04	3.96E-03	2.68E-03	1.91E-03	3.53E-05	6.91E-04	4.40E-04	3.09E-04	1.92E-05	4.34E-04	2.10E-04	1.53E-04
2274	258764.6	4084063	0.000238	4.07E-03	2.76E-03	1.96E-03	2.38E-04	4.07E-03	2.76E-03	1.96E-03	3.63E-05	7.10E-04	4.52E-04	3.17E-04	1.97E-05	4.46E-04	2.16E-04	1.57E-04
2275	258789.6	4084063	0.000245	4.18E-03	2.83E-03	2.01E-03	2.45E-04	4.18E-03	2.83E-03	2.01E-03	3.73E-05	7.30E-04	4.65E-04	3.26E-04	2.02E-05	4.59E-04	2.22E-04	1.61E-04
2276	258814.6	4084063	0.000249	4.25E-03	2.88E-03	2.05E-03	2.49E-04	4.25E-03	2.88E-03	2.05E-03	3.79E-05	7.42E-04	4.73E-04	3.31E-04	2.06E-05	4.66E-04	2.26E-04	1.64E-04
2277	258839.6	4084063	0.000251	4.29E-03	2.91E-03	2.07E-03	2.51E-04	4.29E-03	2.91E-03	2.07E-03	3.82E-05	7.49E-04	4.77E-04	3.34E-04	2.08E-05	4.70E-04	2.28E-04	1.65E-04
2278	258864.6	4084063	0.000251	4.29E-03	2.91E-03	2.07E-03	2.51E-04	4.29E-03	2.91E-03	2.07E-03	3.82E-05	7.49E-04	4.77E-04	3.34E-04	2.08E-05	4.71E-04	2.28E-04	1.65E-04
2279	258889.6	4084063	0.000251	4.28E-03	2.90E-03	2.06E-03	2.51E-04	4.28E-03	2.90E-03	2.06E-03	3.82E-05	7.48E-04	4.77E-04	3.34E-04	2.07E-05	4.70E-04	2.27E-04	1.65E-04
2280	258914.6	4084063	0.000255	4.35E-03	2.95E-03	2.09E-03	2.55E-04	4.35E-03	2.95E-03	2.09E-03	3.88E-05	7.59E-04	4.84E-04	3.39E-04	2.11E-05	4.77E-04	2.31E-04	1.68E-04
2281	258939.6	4084063	0.000269	4.58E-03	3.10E-03	2.21E-03	2.69E-04	4.58E-03	3.10E-03	2.21E-03	4.08E-05	8.00E-04	5.09E-04	3.57E-04	2.22E-05	5.02E-04	2.43E-04	1.77E-04
2282	258964.6	4084063	0.000285	4.86E-03	3.30E-03	2.34E-03	2.85E-04	4.86E-03	3.30E-03	2.34E-03	4.34E-05	8.49E-04	5.41E-04	3.79E-04	2.35E-05	5.34E-04	2.58E-04	1.87E-04
2283	258989.6	4084063	0.000319	5.43E-03	3.68E-03	2.62E-03	3.19E-04	5.43E-03	3.68E-03	2.62E-03	4.84E-05	9.49E-04	6.04E-04	4.24E-04	2.63E-05	5.96E-04	2.88E-04	2.09E-04
2284	259014.6	4084063	0.000358	6.11E-03	4.14E-03	2.94E-03	3.58E-04	6.11E-03	4.14E-03	2.94E-03	5.45E-05	1.07E-03	6.80E-04	4.77E-04	2.96E-05	6.71E-04	3.24E-04	2.36E-04
2285	259039.6	4084063	0.000395	6.73E-03	4.56E-03	3.24E-03	3.95E-04	6.73E-03	4.56E-03	3.24E-03	6.01E-05	1.18E-03	7.49E-04	5.25E-04	3.26E-05	7.39E-04	3.57E-04	2.60E-04
2286	259064.6	4084063	0.000426	7.27E-03	4.93E-03	3.50E-03	4.26E-04	7.27E-03	4.93E-03	3.50E-03	6.48E-05	1.27E-03	8.09E-04	5.67E-04	3.52E-05	7.98E-04	3.86E-04	2.80E-04
2287	259089.6	4084063	0.000454	7.73E-03	5.24E-03	3.73E-03	4.54E-04	7.73E-03	5.24E-03	3.73E-03	6.90E-05	1.35E-03	8.61E-04	6.03E-04	3.75E-05	8.49E-04	4.11E-04	2.98E-04
2288	259114.6	4084063	0.000477	8.13E-03	5.51E-03	3.92E-03	4.77E-04	8.13E-03	5.51E-03	3.92E-03	7.25E-05	1.42E-03	9.04E-04	6.34E-04	3.94E-05	8.92E-04	4.31E-04	3.13E-04
2289	259139.6	4084063	0.000495	8.44E-03	5.72E-03	4.07E-03	4.95E-04	8.44E-03	5.72E-03	4.07E-03	7.53E-05	1.47E-03	9.40E-04	6.59E-04	4.09E-05	9.27E-04	4.48E-04	3.26E-04
2290	259164.6	4084063	0.000508	8.66E-03	5.87E-03	4.17E-03	5.08E-04	8.66E-03	5.87E-03	4.17E-03	7.72E-05	1.51E-03	9.64E-04	6.75E-04	4.19E-05	9.50E-04	4.60E-04	3.34E-04
2291	258364.6	4084088	0.000152	2.60E-03	1.76E-03	1.25E-03	1.52E-04	2.60E-03	1.76E-03	1.25E-03	2.31E-05	4.53E-04	2.89E-04	2.02E-04	1.26E-05	2.85E-04	1.38E-04	1.00E-04
2292	258389.6	4084088	0.000157	2.68E-03	1.82E-03	1.29E-03	1.57E-04	2.68E-03	1.82E-03	1.29E-03	2.39E-05	4.68E-04	2.98E-04	2.09E-04	1.30E-05	2.94E-04	1.42E-04	1.03E-04
2293	258414.6	4084088	0.000162	2.77E-03	1.87E-03	1.33E-03	1.62E-04	2.77E-03	1.87E-03	1.33E-03	2.47E-05	4.83E-04	3.08E-04	2.16E-04	1.34E-05	3.04E-04	1.47E-04	1.07E-04
2294	258439.6	4084088	0.000168	2.86E-03	1.94E-03	1.38E-03	1.68E-04	2.86E-03	1.94E-03	1.38E-03	2.55E-05	4.99E-04	3.18E-04	2.23E-04	1.38E-05	3.13E-04	1.52E-04	1.10E-04
2295	258464.6	4084088	0.000173	2.95E-03	2.00E-03	1.42E-03	1.73E-04	2.95E-03	2.00E-03	1.42E-03	2.63E-05	5.15E-04	3.28E-04	2.30E-04	1.43E-05	3.24E-04	1.57E-04	1.14E-04
2296	258489.6	4084088	0.000179	3.05E-03	2.07E-03	1.47E-03	1.79E-04	3.05E-03	2.07E-03	1.47E-03	2.72E-05	5.33E-04	3.39E-04	2.38E-04	1.48E-05	3.35E-04	1.62E-04	1.18E-04
2297	258514.6	4084088	0.000185	3.15E-03	2.14E-03	1.52E-03	1.85E-04	3.15E-03	2.14E-03	1.52E-03	2.81E-05	5.51E-04	3.51E-04	2.46E-04	1.53E-05	3.46E-04	1.67E-04	1.22E-04
2298	258539.6	4084088	0.000191	3.26E-03	2.21E-03	1.57E-03	1.91E-04	3.26E-03	2.21E-03	1.57E-03	2.91E-05	5.69E-04	3.63E-04	2.54E-04	1.58E-05	3.58E-04	1.73E-04	1.26E-04
2299	258564.6	4084088	0.000198	3.37E-03	2.28E-03	1.62E-03	1.98E-04	3.37E-03	2.28E-03	1.62E-03	3.01E-05	5.89E-04	3.75E-04	2.63E-04	1.63E-05	3.70E-04	1.79E-04	1.30E-04
2300	258589.6	4084088	0.000205	3.49E-03	2.37E-03	1.68E-03	2.05E-04	3.49E-03	2.37E-03	1.68E-03	3.12E-05	6.10E-04	3.89E-04	2.73E-04	1.69E-05	3.84E-04	1.85E-04	1.35E-04
2301	258614.6	4084088	0.000213	3.63E-03	2.46E-03	1.75E-03	2.13E-04	3.63E-03	2.46E-03	1.75E-03	3.24E-05	6.34E-04	4.04E-04	2.83E-04	1.76E-05	3.98E-04	1.93E-04	1.40E-04
2302	258639.6	4084088	0.00022	3.75E-03	2.55E-03	1.81E-03	2.20E-04	3.75E-03	2.55E-03	1.81E-03	3.35E-05	6.56E-04	4.18E-04	2.93E-04	1.82E-05	4.12E-04	1.99E-04	1.45E-04
2303	258664.6	4084088	0.000228	3.88E-03	2.63E-03	1.87E-03	2.28E-04	3.88E-03	2.63E-03	1.87E-03	3.46E-05	6.78E-04	4.32E-04	3.03E-04	1.88E-05	4.26E-04	2.06E-04	1.50E-04
2304	258689.6	4084088	0.000235	4.01E-03	2.72E-03	1.93E-03	2.35E-04	4.01E-03	2.72E-03	1.93E-03	3.58E-05	7.01E-04	4.47E-04	3.13E-04	1.94E-05	4.41E-04	2.13E-04	1.55E-04
2305	258714.6	4084088	0.000243	4.14E-03	2.81E-03	2.00E-03	2.43E-04	4.14E-03	2.81E-03	2.00E-03	3.70E-05	7.24E-04	4.61E-04	3.23E-04	2.01E-05	4.55E-04	2.20E-04	1.60E-04
2306	258739.6	4084088	0.000251	4.27E-03	2.90E-03	2.06E-03	2.51E-04	4.27E-03	2.90E-03	2.06E-03	3.81E-05	7.46E-04	4.76E-04	3.33E-04	2.07E-05	4.69E-04	2.27E-04	1.65E-04
2307	258764.6	4084088	0.000258	4.41E-03	2.99E-03	2.12E-03	2.58E-04	4.41E-03	2.99E-03	2.12E-03	3.93E-05	7.70E-04	4.90E-04	3.44E-04	2.13E-05	4.84E-04	2.34E-04	1.70E-04
2308	258789.6	4084088	0.000267	4.56E-03	3.09E-03	2.20E-03	2.67E-04	4.56E-03	3.09E-03	2.20E-03	4.06E-05	7.96E-04	5.07E-04	3.56E-04	2.21E-05	5.00E-04	2.42E-04	1.76E-04
2309	258814.6	4084088	0.000272	4.64E-03	3.15E-03	2.24E-03	2.72E-04	4.64E-03	3.15E-03	2.24E-03	4.14E-05	8.11E-04	5.17E-04	3.62E-04	2.25E-05	5.10E-04	2.47E-04	1.79E-04
2310	258839.6	4084088	0.000275	4.69E-03	3.18E-03	2.26E-03	2.75E-04	4.69E-03	3.18E-03	2.26E-03	4.18E-05	8.19E-04	5.22E-04	3.66E-04	2.27E-05	5.15E-04	2.49E-04	1.81E-04
2311	258864.6	4084088	0.000275	4.68E-03	3.18E-03	2.26E-03	2.75E-04	4.68E-03	3.18E-03	2.26E-03	4.18E-05	8.18E-04	5.21E-04	3.65E-04	2.27E-05	5.14E-04	2.49E-04	1.81E-04
2312	258889.6	4084088	0.000277	4.72E-03	3.20E-03	2.28E-03	2.77E-04	4.72E-03	3.20E-03	2.28E-03	4.21E-05	8.25E-04	5.26E-04	3.68E-04	2.29E-05	5.18E-04	2.51E-04	1.82E-04
2313	258914.6	4084088	0.000286	4.88E-03	3.31E-03	2.35E-03	2.86E-04	4.88E-03	3.31E-03	2.35E-03	4.35E-05	8.52E-04	5.43E-04	3.81E-04	2.36E-05	5.35E-04	2.59E-04	1.88E-04
2314	258939.6	4084088	0.000294	5.02E-03	3.40E-03	2.42E-03	2.94E-04	5.02E-03	3.40E-03	2.42E-03	4.47E-05	8.76E-04	5.58E-04	3.91E-04	2.43E-05	5.51E-04	2.66E-04	1.93E-04
2315	258964.6	4084088	0.000316	5.39E-03	3.66E-03	2.60E-03	3.16E-04	5.39E-03	3.66E-03	2.60E-03	4.81E-05	9.42E-04	6.00E-04	4.21E-04	2.61E-05	5.92E-04	2.86E-04	2.08E-04
2316	258989.6	4084088	0.000355	6.06E-03	4.11E-03	2.92E-03	3.55E-04	6.06E-03	4.11E-03	2.92E-03	5.40E-05	1.06E-03	6.74E-04	4.72E-04	2.93E-05	6.65E-04	3.21E-04	2.34E-04
2317	259014.6	4084088	0.000395	6.73E-03	4.56E-03	3.24E-03	3.95E-04	6.73E-03	4.56E-03	3.24E-03	6.00E-05	1.18E-03	7.49E-04	5.25E-04	3.26E-05	7.39E-04	3.57E-04	2.60E-04
2318	259039.6	4084088	0.000429	7.31E-03	4.96E-03	3.52E-03	4.29E-04	7.31E-03	4.96E-03	3.52E-03	6.52E-05	1.28E-03	8.14E-04	5.70E-04	3.54E-05	8.03E-04	3.88E-04	2.82E-04
2319	259064.6	4084088	0.000458	7.81E-03	5.30E-03	3.76E-03	4.58E-04	7.81E-03	5.30E-03	3.76E-03	6.97E-05	1.36E-03	8.69E-04	6.09E-04	3.78E-05	8.57E-04	4.15E-04	3.01E-04
2320	259089.6	4084088	0.000484	8.26E-03	5.60E-03	3.98E-03	4.84E-04	8.26E-03	5.60E-03	3.98E-03	7.36E-05	1.44E-03	9.19E-04	6.44E-04	4.00E-05	9.06E-04	4.38E-04	3.18E-04
2321	259114.6	4084088	0.000508	8.65E-03	5.87E-03	4.17E-03	5.08E-04	8.65E-03	5.87E-03	4.17E-03	7.72E-05	1.51E-03	9.63E-04	6.75E-04	4.19E-05	9.50E-04	4.59E-04	3.34E-04
2322	259139.6	4084088	0.000527	8.99E-03	6.10E-03	4.33E-03	5.27E-04	8.99E-03	6.10E-03	4.33E-03	8.02E-05	1.57E-03	1.00E-03	7.01E-04	4.36E-05	9.87E-04	4.77E-04	3.47E-04
2323	259164.6	4084088	0.000542	9.24E-03	6.27E-03	4.45E-03	5.42E-04	9.24E-03	6.27E-03	4.45E-03	8.24E-05	1.61E-03	1.03E-03	7.21E-04	4.48E-05	1.01E-03	4.91E-04	3.56E-04

This page intentionally left blank

APPENDIX F

TRAFFIC NOISE MODEL OUTPUTS

This page intentionally left blank

TABLE Existing without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: International Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1620 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	102.7

TABLE Existing without Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2360 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	61.5	131.9

TABLE Existing without Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3720 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	83.1	178.5

TABLE Existing without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Clovis Avenue and Baron Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3720 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	83.1	178.5

TABLE Existing without Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10330 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	92.3	195.8	420.3

TABLE Existing without Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9420 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	87.0	184.2	395.3

TABLE Existing without Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Clovis Avenue and Sunnyside Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8060 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	78.8	166.2	356.4

TABLE Existing without Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Sunnyside Avenue and Fowler Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7040 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	71.2	151.6	325.6

TABLE Existing without Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37560 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
102.4	188.5	389.6	831.3

TABLE Existing without Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8350 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	86.3	172.7	365.6

TABLE Existing without Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14520 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
63.8	118.9	246.8	527.2

TABLE Existing without Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6020 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.68

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	53.3	114.3	246.0

TABLE Existing without Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4830 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	98.8	212.4

TABLE Existing without Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Behymer Avenue and Perrin Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 0 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 20.15

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing without Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Perrin Avenue and Clovis Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 0 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 20.15

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing without Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Baron Avenue and Shepherd Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1410 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	96.3

TABLE Existing without Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Shepherd Avenue and Teague Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4570 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	97.8	205.7

TABLE Existing without Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Teague Avenue and Nees Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8220 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	69.4	142.3	303.0

TABLE Existing without Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Nees Avenue and Alluvial Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10870 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	82.0	170.6	364.7

TABLE Existing without Project-20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Alluvial Avenue and Herndon Avenue
NOTES: TM 6343 - Existing without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17260 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	109.4	231.2	495.9

TABLE Existing with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: International Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1670 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	104.8

TABLE Existing with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2630 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	66.0	141.7

TABLE Existing with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4170 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	89.6	192.6

TABLE Existing with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Clovis Avenue and Baron Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4170 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	89.6	192.6

TABLE Existing with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11330 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	97.9	208.1	447.0

TABLE Existing with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10870 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	95.4	202.5	434.8

TABLE Existing with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Clovis Avenue and Sunnyside Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8780 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	83.2	175.9	377.2

TABLE Existing with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Sunnyside Avenue and Fowler Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7600 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.26

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	74.8	159.4	342.7

TABLE Existing with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39010 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
104.1	192.8	399.3	852.5

TABLE Existing with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8840 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	89.0	179.1	379.6

TABLE Existing with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14790 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.51

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
64.3	120.3	249.8	533.7

TABLE Existing with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6180 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	54.3	116.3	250.3

TABLE Existing with Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4830 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	98.8	212.4

TABLE Existing with Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Behymer Avenue and Perrin Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3330 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	65.5

TABLE Existing with Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Perrin Avenue and Clovis Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5050 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	85.8

TABLE Existing with Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Baron Avenue and Shepherd Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6460 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	60.4	121.8	258.4

TABLE Existing with Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Shepherd Avenue and Teague Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7460 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	65.6	133.6	284.2

TABLE Existing with Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Teague Avenue and Nees Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10890 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	82.1	170.9	365.2

TABLE Existing with Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Nees Avenue and Alluvial Avenue
NOTES: TM 6343 - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13040 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	91.7	192.3	411.6

TABLE Existing with Project-20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Alluvial Avenue and Herndon Avenue
NOTES: TM 6343 - Existing with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19320 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
58.6	117.5	249.0	534.4

TABLE Near-Term (2026) without Project-01

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: International Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	53.3	114.2

TABLE Near-Term (2026) without Project-02

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2830 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	69.3	148.8

TABLE Near-Term (2026) without Project-03

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4140 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	89.2	191.7

TABLE Near-Term (2026) without Project-04

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Clovis Avenue and Baron Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4060 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	88.0	189.2

TABLE Near-Term (2026) without Project-05

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26560 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
80.9	170.8	366.3	788.2

TABLE Near-Term (2026) without Project-06

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23160 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
74.2	156.1	334.4	719.4

TABLE Near-Term (2026) without Project-07

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Clovis Avenue and Sunnyside Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23160 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
74.2	156.1	334.4	719.4

TABLE Near-Term (2026) without Project-08

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Sunnyside Avenue and Fowler Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19270 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
64.8	137.7	295.8	636.8

TABLE Near-Term (2026) without Project-09

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 43460 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
109.4	205.9	428.5	915.8

TABLE Near-Term (2026) without Project-10

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14310 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
63.3	117.9	244.5	522.1

TABLE Near-Term (2026) without Project-11

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34310 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
100.1	204.3	434.7	933.8

TABLE Near-Term (2026) without Project-12

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6890 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	58.3	125.0	269.1

TABLE Near-Term (2026) without Project-13

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14220 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	94.2	202.6	436.2

TABLE Near-Term (2026) without Project-14

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Behymer Avenue and Perrin Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 170 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 42.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Near-Term (2026) without Project-15

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Perrin Avenue and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1990 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Near-Term (2026) without Project-16

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Baron Avenue and Shepherd Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7650 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	66.5	135.8	288.9

TABLE Near-Term (2026) without Project-17

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Shepherd Avenue and Teague Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10640 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	81.0	168.3	359.6

TABLE Near-Term (2026) without Project-18

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Teague Avenue and Nees Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14010 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	95.9	201.5	431.7

TABLE Near-Term (2026) without Project-19

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Nees Avenue and Alluvial Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19840 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
59.4	119.6	253.4	543.9

TABLE Near-Term (2026) without Project-20

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Alluvial Avenue and Herndon Avenue
NOTES: TM 6343 - Near-Term (2026) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25180 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
68.1	139.4	296.7	637.4

TABLE Near-Term (2026) with Project-01

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: International Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1950 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	54.2	116.2

TABLE Near-Term (2026) with Project-02

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	73.6	158.1

TABLE Near-Term (2026) with Project-03

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4590 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	95.5	205.3

TABLE Near-Term (2026) with Project-04

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Clovis Avenue and Baron Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4510 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	94.4	203.0

TABLE Near-Term (2026) with Project-05

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27560 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
82.8	175.0	375.4	807.8

TABLE Near-Term (2026) with Project-06

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24610 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
77.1	162.4	348.2	749.2

TABLE Near-Term (2026) with Project-07

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Clovis Avenue and Sunnyside Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23880 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
75.6	159.2	341.3	734.3

TABLE Near-Term (2026) with Project-08

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Sunnyside Avenue and Fowler Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19830 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
66.0	140.4	301.5	649.0

TABLE Near-Term (2026) with Project-09

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44910 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
111.1	210.1	437.8	936.0

TABLE Near-Term (2026) with Project-10

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14800 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.51

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
64.3	120.3	249.9	533.9

TABLE Near-Term (2026) with Project-11

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34580 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
100.5	205.3	437.0	938.7

TABLE Near-Term (2026) with Project-12

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7050 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	59.2	127.0	273.3

TABLE Near-Term (2026) with Project-13

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14220 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	94.2	202.6	436.2

TABLE Near-Term (2026) with Project-14

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Behymer Avenue and Perrin Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3500 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	67.6

TABLE Near-Term (2026) with Project-15

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Perrin Avenue and Clovis Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7040 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	106.7

TABLE Near-Term (2026) with Project-16

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Baron Avenue and Shepherd Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	90.3	188.9	404.4

TABLE Near-Term (2026) with Project-17

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Shepherd Avenue and Teague Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13530 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	93.9	197.0	421.8

TABLE Near-Term (2026) with Project-18

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Teague Avenue and Nees Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16680 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.1	226.0	484.7

TABLE Near-Term (2026) with Project-19

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Nees Avenue and Alluvial Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22010 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
63.0	127.8	271.4	582.8

TABLE Near-Term (2026) with Project-20

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Alluvial Avenue and Herndon Avenue
NOTES: TM 6343 - Near-Term (2026) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27240 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
71.3	146.7	312.6	671.7

TABLE Cumulative (2046) without Project-01

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: International Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4420 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	93.1	200.3

TABLE Cumulative (2046) without Project-02

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9264 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	70.9	152.3	327.8

TABLE Cumulative (2046) without Project-03

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9833 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	73.7	158.4	341.1

TABLE Cumulative (2046) without Project-04

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Clovis Avenue and Baron Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10482 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	76.9	165.3	355.9

TABLE Cumulative (2046) without Project-05

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27817 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
83.3	176.1	377.7	812.9

TABLE Cumulative (2046) without Project-06

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24210 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
76.3	160.7	344.4	741.0

TABLE Cumulative (2046) without Project-07

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Clovis Avenue and Sunnyside Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24138 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
76.1	160.4	343.7	739.5

TABLE Cumulative (2046) without Project-08

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Sunnyside Avenue and Fowler Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20066 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
66.5	141.5	303.9	654.2

TABLE Cumulative (2046) without Project-09

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47547 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
114.1	217.6	454.4	972.2

TABLE Cumulative (2046) without Project-10

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14994 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
64.7	121.3	252.1	538.6

TABLE Cumulative (2046) without Project-11

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35997 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
102.9	210.8	448.7	964.1

TABLE Cumulative (2046) without Project-12

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11451 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	81.6	175.4	377.5

TABLE Cumulative (2046) without Project-13

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15612 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	100.2	215.6	464.2

TABLE Cumulative (2046) without Project-14

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Behymer Avenue and Perrin Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5538 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	91.1

TABLE Cumulative (2046) without Project-15

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Perrin Avenue and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7867 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	54.3	114.8

TABLE Cumulative (2046) without Project-16

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Baron Avenue and Shepherd Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9552 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	75.9	156.8	334.7

TABLE Cumulative (2046) without Project-17

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Shepherd Avenue and Teague Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15874 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	103.8	218.8	469.0

TABLE Cumulative (2046) without Project-18

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Teague Avenue and Nees Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17672 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
55.8	111.0	234.8	503.6

TABLE Cumulative (2046) without Project-19

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Nees Avenue and Alluvial Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20766 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.0	123.1	261.2	560.7

TABLE Cumulative (2046) without Project-20

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Alluvial Avenue and Herndon Avenue
NOTES: TM 6343 - Cumulative (2046) without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26374 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
70.0	143.6	305.9	657.4

TABLE Cumulative (2046) with Project-01

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: International Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4470 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	93.8	201.8

TABLE Cumulative (2046) with Project-02

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9534 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.68

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	72.3	155.2	334.1

TABLE Cumulative (2046) with Project-03

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10283 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	76.0	163.2	351.4

TABLE Cumulative (2046) with Project-04

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Behymer Avenue between Clovis Avenue and Baron Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10932 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	79.1	170.0	366.0

TABLE Cumulative (2046) with Project-05

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Willow Avenue and Minnewawa Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28817 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
85.2	180.2	386.7	832.2

TABLE Cumulative (2046) with Project-06

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Minnewawa Avenue and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25660 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
79.1	167.0	358.0	770.3

TABLE Cumulative (2046) with Project-07

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Clovis Avenue and Sunnyside Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24858 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
77.6	163.5	350.5	754.2

TABLE Cumulative (2046) with Project-08

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Shepherd Avenue between Sunnyside Avenue and Fowler Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20626 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.7	144.1	309.5	666.3

TABLE Cumulative (2046) with Project-09

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Herndon Avenue between State Route 168 Eastbound Ramps and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48997 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 60 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
115.8	221.6	463.5	991.8

TABLE Cumulative (2046) with Project-10

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15484 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
65.7	123.7	257.4	550.2

TABLE Cumulative (2046) with Project-11

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Willow Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36267 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
103.4	211.8	451.0	968.9

TABLE Cumulative (2046) with Project-12

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between International Avenue and Behymer Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11611 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	82.3	177.0	381.0

TABLE Cumulative (2046) with Project-13

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Minnewawa Avenue between Behymer Avenue and Shepherd Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15612 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	100.2	215.6	464.2

TABLE Cumulative (2046) with Project-14

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Behymer Avenue and Perrin Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8868 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	58.6	124.2

TABLE Cumulative (2046) with Project-15

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Baron Avenue between Perrin Avenue and Clovis Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12917 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.26

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	74.7	159.3

TABLE Cumulative (2046) with Project-16

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Baron Avenue and Shepherd Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14602 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	98.5	207.1	443.7

TABLE Cumulative (2046) with Project-17

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Shepherd Avenue and Teague Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18764 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
57.6	115.4	244.3	524.1

TABLE Cumulative (2046) with Project-18

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Teague Avenue and Nees Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20342 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
60.3	121.5	257.6	553.1

TABLE Cumulative (2046) with Project-19

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Nees Avenue and Alluvial Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22936 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
64.5	131.2	278.9	599.0

TABLE Cumulative (2046) with Project-20

FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/13/2023
ROADWAY SEGMENT: Clovis Avenue between Alluvial Avenue and Herndon Avenue
NOTES: TM 6343 - Cumulative (2046) with Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28434 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
73.2	150.8	321.6	691.2

This page intentionally left blank

APPENDIX G

TRAFFIC IMPACT ANALYSIS

This page intentionally left blank

TRANSPORTATION IMPACT ANALYSIS

TRACT MAP 6343 PROJECT

CLOVIS, FRESNO COUNTY, CALIFORNIA

LSA

August 2023

TRANSPORTATION IMPACT ANALYSIS

TRACT MAP 6343 PROJECT

CLOVIS, FRESNO COUNTY, CALIFORNIA

Prepared for:

City of Clovis
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
1500 Iowa Avenue, Suite 200
Riverside, California 92507
951.781.9310

Project No. CIT2201

August 2023

TABLE OF CONTENTS

TABLE OF CONTENTS i
LIST OF ABBREVIATIONS AND ACRONYMS v
1.0 INTRODUCTION 1-1
1.1 Project Description 1-1
1.2 CEQA Vehicle Miles Traveled Analysis 1-2
1.3 Local Transportation Analysis Study Area 1-2
1.3.1 Study Intersections 1-3
1.3.2 Roadway Segments 1-3
1.4 List of Chapter 1.0 Figures 1-4
2.0 VEHICLE MILES TRAVELED ANALYSIS 2-1
2.1 Methodology 2-1
2.1.1 Thresholds of Significance 2-1
2.1.2 Project Traffic Analysis Zone Update 2-2
2.1.3 Model Runs and Project Vehicle Miles Traveled Estimation 2-2
2.2 Project Vehicle Miles Traveled Analysis 2-2
2.3 VMT REDUCTION MEASURES – PROJECT DESIGN FEATURES AND MITIGATION MEASUREs 2-2
2.4 List of Chapter 2.0 Tables 2-6
3.0 LOCAL TRANSPORTATION ANALYSIS METHODOLOGY 3-9
3.1 Level of Service Definitions 3-9
3.2 Level of Service Procedures and Standards 3-9
3.3 List of Chapter 3.0 Tables 3-11
4.0 CIRCULATION NETWORK SETTING 4-1
4.1 Existing Circulation Network 4-1
4.2 Transit, Bicycles, and Pedestrians 4-3
4.2.1 Transit Network 4-3
4.2.2 Bicycle Network 4-3
4.2.3 Pedestrian Network 4-3
4.3 List of Chapter 4.0 Figures 4-4
5.0 TRAFFIC VOLUMES FOR WITHOUT PROJECT SCENARIOS 5-1
5.1 Existing Traffic Volumes 5-1
5.2 Near-Term (2026) Without Project Traffic Volumes 5-1
5.3 Cumulative (2046) Without Project Traffic Volumes 5-2
5.4 List of Chapter 4.0 Figures and Tables 5-2
6.0 PROJECT TRAFFIC 6-1
6.1 Project Trip Generation 6-1
6.2 Project Trip Distribution and Assignment 6-1
6.3 List of Chapter 6.0 Figures and Tables 6-1
7.0 TRAFFIC VOLUMES FOR PLUS PROJECT SCENARIOS 7-1
7.1 List of Chapter 7.0 Figures 7-1

8.0 INTERSECTION LEVELS OF SERVICE 8-1
8.1 Existing Levels of Service 8-1
8.1.1 Study Intersections 8-1
8.1.2 Roadway Segments 8-1
8.2 Existing Plus Project Levels of Service 8-1
8.2.1 Study Intersections 8-1
8.2.2 Roadway Segments 8-2
8.3 Near-Term (2026) Plus Project Levels of Service 8-2
8.3.1 Study Intersections 8-2
8.3.2 Roadway Segments 8-2
8.4 Cumulative (2046) Without Project Levels of Service 8-3
8.4.1 Study Intersections 8-3
8.4.2 Roadway Segments 8-3
8.5 Cumulative (2046) Plus Project Levels of Service 8-4
8.5.1 Study Intersections 8-4
8.5.2 Roadway Segments 8-4
8.6 List of Chapter 8.0 Tables 8-5
9.0 CIRCULATION IMPROVEMENTS AND FUNDING SOURCES 9-1
9.1 Recommended Improvements 9-1
9.2 Funding Sources and Mechanisms 9-1
9.2.1 City of Clovis Development Impact Fee Program 9-2
9.2.2 Project Fair Share 9-2
9.3 List of Chapter 9.0 Figures and Tables 9-3
10.0 INTERSECTION QUEUING ANALYSIS 10-1
10.1 List of Chapter 10.0 Tables 10-1
11.0 SITE DISTANCE ANALYSIS AND SAFE ROUTES TO SCHOOL ANALYSIS 11-1
11.1 Sight Distance Analysis 11-1
11.2 Safe Routes to School 11-2
11.3 List of Chapter 11.0 Figures 11-3
12.0 CALTRANS FREEWAY QUEUING ANALYSIS 12-1
12.1 Freeway Queuing Analysis 12-1
12.2 List of Chapter 12.0 Tables 12-2
13.0 SUMMARY AND CONCLUSIONS 13-1
13.1 Vehicle Miles Traveled Analysis Summary 13-1
13.2 Existing Conditions Summary 13-1
13.3 Near-term (2026) Conditions Summary 13-1
13.4 Cumulative (2046) Conditions Summary 13-1
13.5 Improvements Summary 13-1
13.6 Queueing Analysis Summary 13-1
13.7 Sight Distance Analysis Summary 13-2
13.8 Safe Routes to School Analysis Summary 13-2
13.9 Freeway Queuing Analysis Summary 13-2

FIGURES

Figure 1-1: Regional and Project Location 1-5
Figure 1-2: Tentative Subdivision Map 1-6
Figure 1-3: Study Area Intersections 1-7
Figure 4-1: City of Clovis Roadway Classifications 4-5
Figure 4-2: Existing Study Intersection Geometrics and Traffic Control 4-6
Figure 4-3: Study Intersection Geometrics and Traffic Control under 'Plus Project' Scenarios 4-7
Figure 4-4: City of Clovis Existing Bicycle Facilities 4-8
Figure 4-5: City of Clovis Proposed Bicycle Facilities 4-9
Figure 4-6: City of Clovis Existing Sidewalk Facilities 4-10
Figure 4-7: City of Clovis Existing and Proposed Trails and Mid-Block Crossings 4-11
Figure 5-1: Existing Peak-Hour Traffic Volumes 5-3
Figure 5-2: Cumulative Project Locations 5-4
Figure 5-3: Cumulative Project Trip Assignment 5-5
Figure 5-4: Near-Term (2026) without Project Peak-Hour Traffic Volumes 5-6
Figure 5-5: Cumulative (2046) without Project Peak-Hour Traffic Volumes 5-7
Figure 6-1: Project Trip Distribution 6-2
Figure 6-2: Project Trip Assignment 6-3
Figure 7-1: Existing Plus Project Peak-Hour Traffic Volumes 7-2
Figure 7-2: Near-Term (2026) Plus Project Peak-Hour Traffic Volumes 7-3
Figure 7-3: Cumulative (2046) Plus Project Peak-Hour Traffic Volumes 7-4
Figure 9-1: Existing Plus Project with Improvements Study Intersection Geometrics and Traffic Control 9-4
Figure 9-2: Near-Term (2026) Plus Project with Improvements Study Intersection Geometrics and Traffic Control 9-5
Figure 9-3: Cumulative (2046) Plus Project with Improvements Study Intersection Geometrics and Traffic Control 9-6
Figure 11-1: Sight Distance Analysis at Baron Avenue/Project Driveway 4 11-4
Figure 11-2: Sight Distance Analysis at Baron Avenue/Project Driveway 5 11-5
Figure 11-3: Sight Distance Analysis at Baron Avenue/Project Driveway 6 11-6
Figure 11-4: Sight Distance Analysis at Baron Avenue/Perrin Avenue 11-7

TABLES

Table 2-A: Existing (2019) Regional and Project VMT per Capita 2-7
Table 2-B: Calculated VMT Reduction with Project Mitigation 2-8
Table 3-A: Intersection Level of Service Definitions 3-12
Table 3-B: Roadway Segment Level of Service Definitions 3-12
Table 3-C: Level of Service Criteria for Unsignalized and Signalized Intersections 3-13
Table 3-D: Roadway Segment Capacity and Levels of Service 3-14
Table 5-A: Existing Roadway Segment Peak-Hour Traffic Volumes 5-8
Table 5-B: Cumulative Projects Trip Generation 5-9
Table 5-C: Near-Term (2026) Roadway Segment Peak-Hour Traffic Volumes 5-15
Table 5-D: Cumulative (2046) Roadway Segment Peak-Hour Traffic Volumes 5-16
Table 6-A: Project Trip Generation 6-4

Table 8-A: Existing Intersection Levels of Service 8-6
Table 8-B: Existing Roadway Segment Levels of Service 8-7
Table 8-C: Near-Term (2026) Intersection Levels of Service 8-8
Table 8-D: Near-Term (2026) Roadway Segment Levels of Service 8-9
Table 8-E: Cumulative (2046) Intersection Levels of Service 8-10
Table 8-F: Cumulative (2046) Roadway Segment Levels of Service 8-11
Table 9-A: Recommended Improvements for Intersections 9-7
Table 9-B: Existing Plus Project with Recommended Improvements Intersection Levels of Service 9-8
Table 9-C: Near-Term (2026) Plus Project with Recommended Improvements Intersection Levels of Service 9-9
Table 9-D: Cumulative (2046) Plus Project with Recommended Improvements Intersection Levels of Service 9-10
Table 9-E: Recommended Improvements for Roadway Segments 9-11
Table 9-F: Near-Term (2026) Plus Project with Recommended Improvements Roadway Segments Levels of Service 9-12
Table 9-G: Cumulative (2046) Plus Project with Recommended Improvements Roadway Segments Levels of Service 9-13
Table 9-H: Intersection Improvement Funding Mechanism and Fair Share 9-14
Table 9-I: Roadway Segment Improvement Funding Mechanism and Fair Share 9-15
Table 10-A: Existing Queuing Analysis 10-2
Table 10-B: Near-Term (2026) Queuing Analysis 10-4
Table 10-C: Cumulative (2046) Queuing Analysis 10-7
Table 10-D: Existing Plus Project with Improvements Queuing Analysis 10-9
Table 10-E: Near-Term (2026) Plus Project with Improvements Queuing Analysis 10-11
Table 10-F: Cumulative (2046) Plus Project with Improvements Queuing Analysis 10-13
Table 12-A: Caltrans Off-Ramp Speed Differential 12-3

APPENDICES

A: SCOPING AGREEMENT
B: VMT CALCULATION WORKSHEETS
C: TRAFFIC COUNT SHEETS AND SIGNAL TIMING SHEETS
D: VOLUME DEVELOPMENT WORKSHEETS
E: LEVEL OF SERVICE WORKSHEETS
F: SIGNAL WARRANT ANALYSIS WORKSHEETS
G: QUEUING ANALYSIS WORKSHEETS
H: HCS WORKSHEETS

LIST OF ABBREVIATIONS AND ACRONYMS

ABM	Activity Based Model
ADA	Americans with Disabilities Act
ATP	Active Transportation Plan
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
City	City of Clovis
CUSD	Clovis Unified School District
FAX	Fresno Area Express
Fresno COG	Fresno Council of Governments
FTIP	Federal Transportation Improvement Program
HCM	*Highway Capacity Manual*
HCM 6	*Highway Capacity Manual 6th Edition*
HCS	Highway Capacity Software
HDM	*Highway Design Manual*
HQTA	High-Quality Transit Area
ITE	Institute of Transportation Engineers
LOS	level of service
LTA	Local Transportation Analysis
mph	miles per hour
NCHRP	National Cooperative Highway Research Program
project	Shepherd North Project
RTP	Regional Transportation Plan
SR-168	State Route 168
STIP	State Transportation Improvement Program
TAZ	traffic analysis zone
TIA	Traffic Impact Analysis
TIA Guidelines	Transportation Impact Analysis Guidelines
TIZ	Traffic Impact Zone
TWLTL	two-way-left-turn lane
VMT	vehicle miles traveled

1.0 INTRODUCTION

This Transportation Impact Analysis (TIA) has been prepared to assess the potential circulation impacts associated with the proposed Tract Map 6343 Project (project) in Clovis, Fresno County, California. The approximately 71.54-acre project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the south and the west, and by agricultural fields to the east. The project site is currently vacant. Figure 1-1 illustrates the regional and project location. (Figures and tables are provided at the end of each chapter.)

This report has been prepared based on the City of Clovis (City) *Transportation Impact Analysis Guidelines* (TIA Guidelines), adopted October 2022, as well as the requirements established by the City of Fresno and the California Department of Transportation (Caltrans).

While level of service (LOS) analysis is no longer a determinant of California Environmental Quality Act (CEQA) impacts, consistency with the City's General Plan goals and policies is still required. Therefore, this TIA includes a Vehicle Miles Traveled (VMT) Analysis for a CEQA Transportation Impact evaluation, and a Local Transportation Analysis (LTA) to satisfy the City's General Plan transportation goals and policies. The scope of work for this TIA, including scope for the CEQA VMT Analysis and LTA with trip generation, trip distribution, study area, and analysis methodologies, has been approved by City staff as well as the City of Fresno, County of Fresno, and Caltrans via the Scoping Agreement process. A copy of the Scoping Agreement is included as Appendix A.

1.1 PROJECT DESCRIPTION

The proposed project will include the annexation of 246 acres from Fresno County by the City of Clovis. It would also consist of developing 71.54 acres of this annexation area into 590 single-family homes. Currently, no developments have been proposed for the remaining 174.46-acre annexation area. As such, any future developments occurring within the annexation area would require a separate project-specific analysis.

Construction of the proposed project is expected to occur in three phases over a period of 33 months starting in 2023. The first phase of the project would include development of 136 single-family residential units, the second phase would include development of 213 single-family residential units, while the third phase would include development of the remaining 241 single-family residential units. However, for purposes of this TIA, the entire buildout condition of this project has been considered under all 'plus project' conditions. It is anticipated that the entire project buildout will occur in year 2026.

Figure 1-2 illustrates the tentative subdivision map for the project. Access to the project will be provided by the following driveways:

- Three gated ingress and egress driveways along Baron Avenue;
- Two gated ingress and egress driveways along Hammel Avenue, including one along the northern extension of Hammel Avenue; and,

- Two gated ingress and egress driveway along Perrin Avenue. Based on the site plan, the easterly driveway along Perrin Avenue would operate as the primary driveway for ingress/egress traffic from the residential development south of Perrin Avenue. Therefore, as a conservative estimate, it was estimated that majority of the project traffic from this area (south of Perrin Avenue) will be using the driveway on the east. Hence, only the easterly driveway was considered for the analysis.

All driveways will operate as full-access driveways.

1.2 CEQA VEHICLE MILES TRAVELED ANALYSIS

As per the City's TIA Guidelines, the project cannot be considered small because it exceeds 53 dwelling units (City's threshold for screening out single-family home projects from a VMT analysis). Therefore, a detailed VMT analysis has been conducted for the project. For purposes of this analysis, the project-generated VMT per capita has been obtained from the Fresno Council of Governments (Fresno COG) Activity Based Model (ABM). As per the City's TIA Guidelines, a significant project-generated VMT impact would occur if the project's VMT per capita exceeds a level of 13 percent below the existing County average VMT per capita provided in the guidelines. The detailed VMT analysis, including the screening criteria evaluation, VMT analysis methodology, results, and appropriate mitigation measures for the proposed project are discussed in Chapter 2.0.

1.3 LOCAL TRANSPORTATION ANALYSIS STUDY AREA

The LTA for the project examines traffic operations in the vicinity of the proposed project under the following five scenarios:

- Existing Conditions
- Existing Plus Project Conditions
- Near-Term Plus Project Conditions
- Cumulative without Project Conditions
- Cumulative Plus Project Conditions

Traffic conditions at study intersections and roadway segments were examined for weekday a.m. and p.m. peak-hour conditions. The a.m. peak hour is defined as the 1 hour of highest traffic volumes occurring between 7:00 a.m. and 9:00 a.m. The p.m. peak hour is the 1 hour of highest traffic volumes occurring between 4:00 p.m. and 6:00 p.m. Additionally, since the project is estimated to be completed in 2026, the Near-Term condition was evaluated for the year 2026.

As per the City's TIA Guidelines, the extent of the study area should include the following:

- Pedestrian, bicycle, and transit facilities within 0.5 mile from the project site boundary

- All intersections of major streets that would provide direct access to the project

- All signalized intersections within 0.5 mile of the project site boundary where the project would add 50 or more peak-hour trips, and signalized intersections beyond 0.5 mile where the project would add 100 or more peak-hour trips

- All unsignalized intersections within a 0.5 mile of the project site boundary where the project would add more than 50 peak-hour trips

Based on the aforementioned criteria and as per discussion with the City and adjacent jurisdictions during the scoping agreement process, the following intersections and roadway segments have been included in the LTA.

1.3.1 Study Intersections

Per the Scoping Agreement (Appendix A), intersections analyzed in the LTA and their jurisdictions are as follows:

1. Willow Avenue/International Avenue (Clovis/Fresno)
2. Willow Avenue/Behymer Avenue (Clovis/ Fresno)
3. Willow Avenue/Shepherd Avenue (Clovis/Fresno)
4. Minnewawa Avenue/International Avenue (Clovis)
5. Minnewawa Avenue/Behymer Avenue (Clovis)
6. Minnewawa Avenue/Shepherd Avenue (Clovis)
7. Clovis Avenue/Behymer Avenue (Clovis)
8. Clovis Avenue/Baron Avenue (Clovis)
9. Clovis Avenue/Shepherd Avenue (Clovis)
10. Clovis Avenue/Teague Avenue (Clovis)
11. Clovis Avenue/Nees Avenue (Clovis)
12. Clovis Avenue/Alluvial Avenue (Clovis)
13. State Route 168 (SR-168) Westbound Ramps/Herndon Avenue (Caltrans)
14. SR-168 Eastbound Ramps/Herndon Avenue (Caltrans)
15. Clovis Avenue/Herndon Avenue (Clovis)
16. Baron Avenue/Behymer Avenue (Clovis)
17. Baron Avenue/Perrin Avenue (Clovis)
18. Sunnyside Avenue/Shepherd Avenue (Clovis)
19. Fowler Avenue/Shepherd Avenue (Clovis)
20. Hammel Avenue/Project Driveway 1 (Clovis)
21. Hammel Avenue/Project Driveway 2(Clovis)
22. Project Driveway 3/Perrin Avenue (Clovis)
23. Baron Avenue/Project Driveway 4 (Clovis)
24. Baron Avenue/Project Driveway 5 (Clovis)
25. Baron Avenue/Project Driveway 6 (Clovis)

Figure 1-3 illustrates the study area intersections.

1.3.2 Roadway Segments

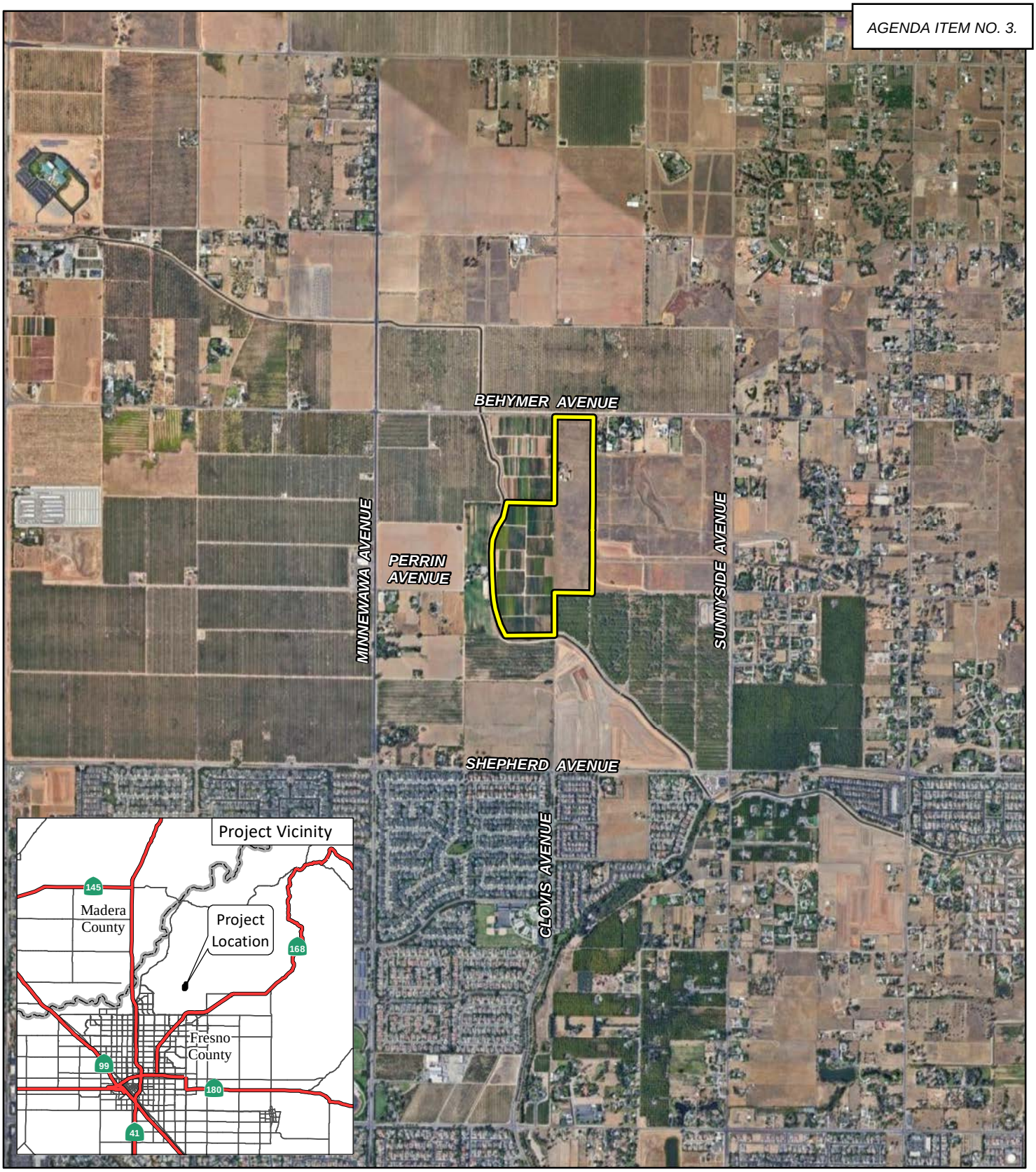
Per the Scoping Agreement (Appendix A), roadway segments analyzed in the LTA are as follows:

1. International Avenue, between Willow Avenue and Minnewawa Avenue (Clovis)
2. Behymer Avenue, between Willow Avenue and Minnewawa Avenue (Clovis)
3. Behymer Avenue, between Minnewawa Avenue and Clovis Avenue (Clovis)
4. Behymer Avenue, between Clovis Avenue and Baron Avenue (Clovis)
5. Shepherd Avenue, between Willow Avenue and Minnewawa Avenue (Clovis)
6. Shepherd Avenue, between Minnewawa Avenue and Clovis Avenue (Clovis)
7. Shepherd Avenue, between Clovis Avenue and Sunnyside Avenue (Clovis)
8. Shepherd Avenue, between Sunnyside Avenue and Fowler Avenue (Clovis)
9. Herndon Avenue, between State Route 168 Eastbound Ramps and Clovis Avenue (Clovis)
10. Willow Avenue, between International Avenue and Behymer Avenue (Clovis/Fresno)
11. Willow Avenue, between Behymer Avenue and Shepherd Avenue (Clovis/Fresno)
12. Minnewawa Avenue, between International Avenue and Behymer Avenue (Clovis)
13. Minnewawa Avenue, between Behymer Avenue and Shepherd Avenue (Clovis)
14. Baron Avenue, between Behymer Avenue and Perrin Avenue (Clovis)
15. Baron Avenue, between Perrin Avenue and Clovis Avenue (Clovis)
16. Clovis Avenue, between Baron Avenue and Shepherd Avenue (Clovis)
17. Clovis Avenue, between Shepherd Avenue and Teague Avenue (Clovis)
18. Clovis Avenue, between Teague Avenue and Nees Avenue (Clovis)
19. Clovis Avenue, between Nees Avenue and Alluvial Avenue (Clovis)
20. Clovis Avenue, between Alluvial Avenue and Herndon Avenue (Clovis)

For each roadway segment, the highest volume on any part of the segment has been considered as the analysis volume for the entire segment.

1.4 LIST OF CHAPTER 1.0 FIGURES

- Figure 1-1: Regional and Project Location
- Figure 1-2: Tentative Subdivision Map
- Figure 1-3: Study Area Intersections



LSA

LEGEND

Project Location

FIGURE 1-1

N

0 1000 2000

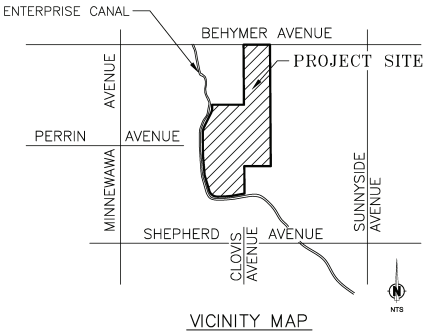
FEET

SOURCE: Google Earth (2018)

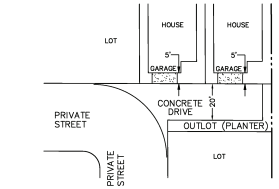
I:\CIT2201\Reports\fig1_Reg_Loc.mxd (5/3/2022)

Tract Map 6343 Project
Transportation Impact Analysis

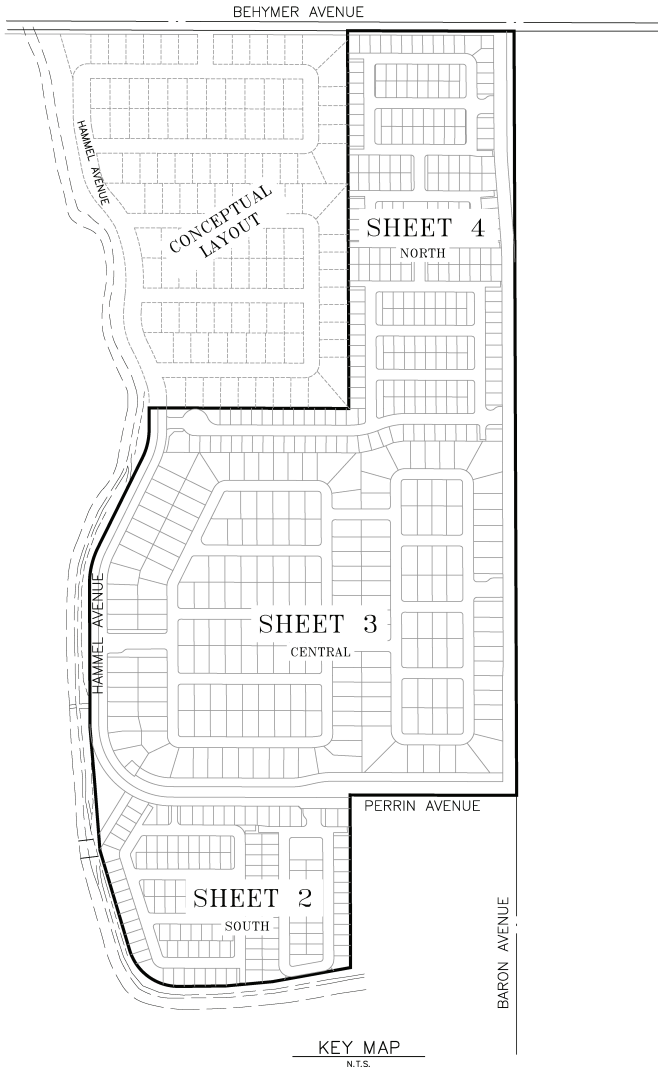
Regional and Project Location



VICINITY MAP
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.



KEY MAP
N.T.S.

LSA

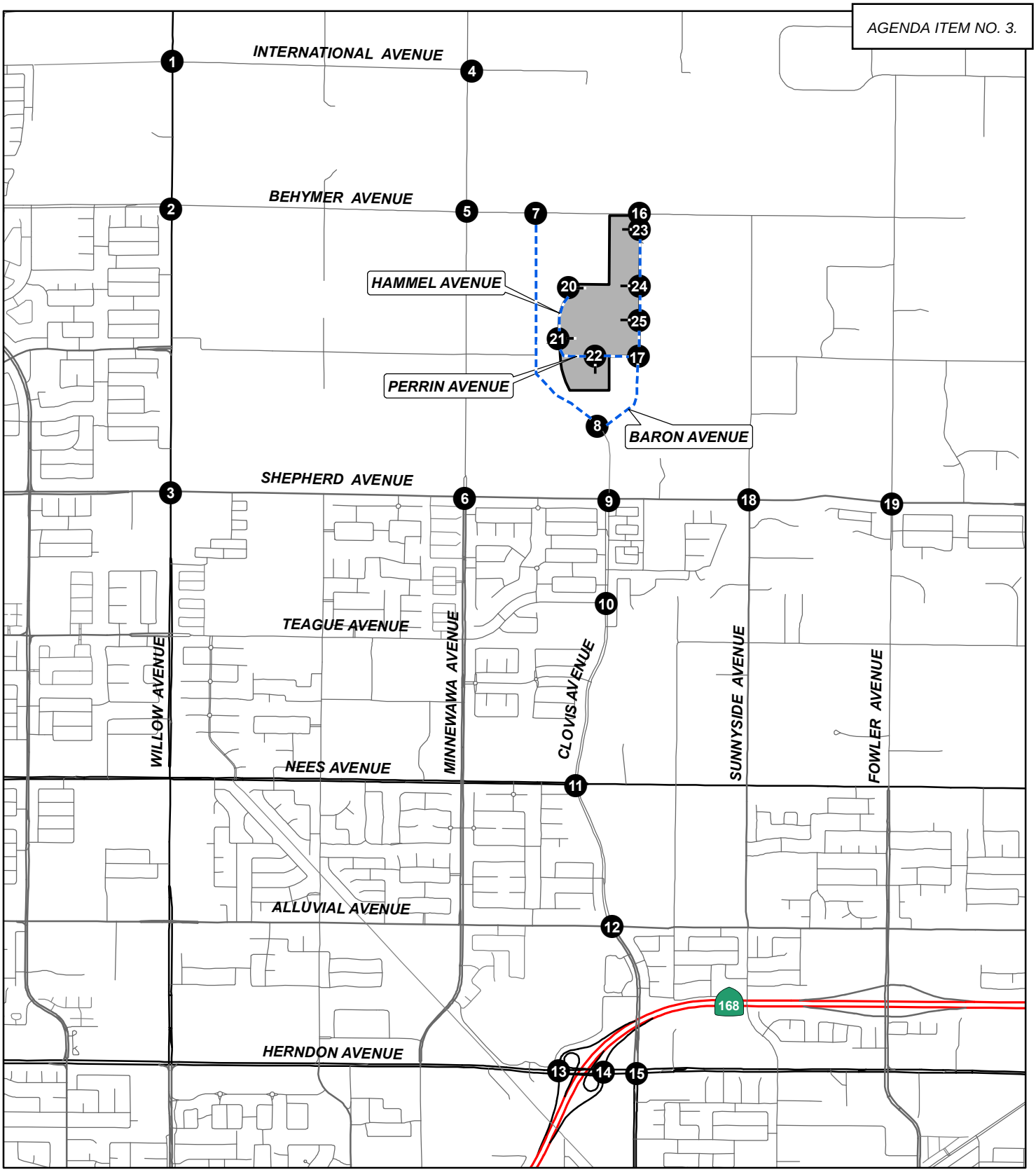
FIGURE 1-2

N

NOT TO SCALE
SOURCE: Harbour & Associates, January 2022
I:\CIT2201\Reports\Traffic\fig2_SitePlan.ai (05/03/2022)

Tract Map 6343 Project
Transportation Impact Analysis

Tentative Subdivision



LSA

LEGEND

- Project Location
- Study Intersection
- Future Roadway
- Project Driveway

0 1250 2500
FEET

SOURCE: ESRI Streetmap (2013)

I:\CIT2201-RIV\Reports\fig3_Study_Int.mxd (2/1/2023)

FIGURE 1-3

Tract Map 6343 Project
Transportation Impact Analysis
Study Area Intersections

2.0 VEHICLE MILES TRAVELED ANALYSIS

On December 28, 2018, the California Office of Administrative Law cleared the revised CEQA Guidelines for use. Among the changes to the CEQA Guidelines was the removal of vehicle delay and LOS from consideration under CEQA. With the adopted CEQA Guidelines, transportation impacts are to be evaluated based on a project's effect on VMT.

The City's TIA Guidelines includes screening criteria, VMT analysis methodology, VMT impact thresholds, and VMT mitigation measures. Therefore, the City's TIA Guidelines were used in the evaluation of the project's VMT analysis.

2.1 METHODOLOGY

The TIA Guidelines provide multiple project types and thresholds for land use projects. The project was compared with the screening criteria established in the "Project Screening" section of the TIA Guidelines to check if the project can be screened out. The following is a brief description of the project in relation with the project screening criteria:

- **Small Project:** The TIA Guidelines states that projects generating less than 500 daily trips could be screened out of a detailed VMT analysis. As discussed in Section 6.1, Project Trip Generation, the project is estimated to generate 5,564 daily trips. Therefore, the project does not satisfy this screening criteria.

- **Provision of Affordable Housing:** The project proposes to develop market-rate, single-family dwelling units. Therefore, this screening criteria does not apply to the project.

- **Local-Serving Retail:** The project consists of residential land use only; therefore, this screening criteria does not apply to the project.

- **Project Located in a High-Quality Transit Area (HQTA):** The project is not located within an HQTA; therefore, this screening criteria does not apply to the project.

- **Project Located in Low VMT Area:** The project is not located in a low VMT area; therefore, this criterion does not apply to the project.

As shown above, the project could not be screened out from a detailed VMT analysis. As such, pursuant to the TIA Guidelines, a detailed VMT analysis was conducted to assess the project's VMT impact.

2.1.1 Thresholds of Significance

The project consists of residential land use. The TIA Guidelines established VMT per capita as the appropriate metric to evaluate residential land use projects while defining Fresno County as the "region" for determining VMT thresholds. The project would have a significant VMT impact if the baseline project VMT per capita is greater than 87 percent of the baseline Fresno County VMT per capita. Based on the TIA Guidelines, baseline Fresno County VMT per capita is 16.1 and the

corresponding threshold is 14.1 (which is 87 percent of 16.1). Therefore, the project will have a significant VMT impact if the project VMT per capita is greater than 14.1.

As recommended in the TIA Guidelines, the Fresno COG ABM was used for the project VMT analysis. The model inputs were updated with the project land uses to calculate project VMT. The project VMT was calculated from a Fresno COG ABM model run as described in the following sections.

2.1.2 Project Traffic Analysis Zone Update

The first step in preparation of this analysis was to update the traffic analysis zones (TAZs) in the model that include the project area. The Fresno COG ABM includes the ability to add or split zones. In order to isolate the project VMT, a new zone was created in the model. The project households were included in the newly created zone for modeling purposes. No project-specific network modifications were required for the model run. A model run was conducted for the existing/base scenario with updated model inputs. The outputs from this updated model run were used to calculate the project VMT per capita.

2.1.3 Model Runs and Project Vehicle Miles Traveled Estimation

A model run was conducted for this updated model upon completion of the socioeconomic data update. The outputs from this updated model run were used to calculate the project VMT per capita.

2.2 PROJECT VEHICLE MILES TRAVELED ANALYSIS

Table 2-A summarizes the regional threshold and project VMT per capita. As shown in Table 2-A, the project VMT per capita is 26.4 percent higher than the City's VMT per capita threshold. Therefore, based on the TIA Guidelines, the project will have a significant VMT impact.

Detailed VMT calculation for the project is included in Appendix B.

2.3 VMT REDUCTION MEASURES – PROJECT DESIGN FEATURES AND MITIGATION MEASURES

When a lead agency identifies a significant CEQA impact, the agency must identify feasible mitigation measures in order to avoid or substantially reduce that impact. VMT impacts can be mitigated through more behavioral changes. Enforcement of mitigation measures will be subject to the mitigation monitoring requirements under CEQA, as well as the regular police powers of the agency. These measures can also be incorporated as a part of plans, policies, regulations, or project designs. Project design features that encourage mode shift from automobiles to transit or non-motorized modes can therefore help reduce project VMT as well. Typically, VMT reduction and benefits from these project design features are not accounted in the project VMT calculations conducted using the regional travel demand model. Therefore, VMT reduction credit can be accounted for these design features similar to VMT mitigation measures to help reduce the project's VMT impact.

Evaluation of VMT reductions should be evaluated using state-of-the-practice methodologies recognizing that many of the VMT mitigation strategies/project design features are dependent on

resident performance over time. Following is a detailed description of both and the corresponding potential reduction that could be achieved with implementation of these measures.

2.3.1 Project Design Features

VMT reduction that can be achieved by the project design features have been estimated using the most California Air Pollution Control Officers Association's (CAPCOA) "*Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*" dated December 2021.

- **Pedestrian Infrastructure:** The project proposes to provide pedestrian improvements/sidewalks both internal to the project site and along the project frontage. Providing sidewalk/pedestrian improvements encourage people to walk instead of drive and thus reduces VMT. CAPCOA transportation measure **T-18. Provide Pedestrian Network Improvement** was used to estimate the VMT reduction due to project related enhancements in pedestrian access and connectivity. The CAPCOA methodology requires existing sidewalk length in the project study area in addition to the length of sidewalk being provided by the project. In order to estimate the existing sidewalk length, a survey was conducted along the proposed project frontage. Based on the survey, the project study area includes approximately 10 miles of sidewalk. The project proposes to add approximately another 1.8 miles of sidewalk/pedestrian access. Therefore, this mitigation measure may reduce the project's VMT by approximately 0.87 percent.

- **Improve Street Connectivity:** The project proposes to provide an internal circulation network. Projects with higher density of intersections would help increase street connectivity, reduce trip lengths and promote use of alternative transportation modes of travel. CAPCOA handbook, identifies measure **T-17: Improve Street Connectivity** to evaluate project street network. The measure is recommended as an appropriate design feature for plans within urban or suburban areas. The current project is located in suburban/rural area type setting, so this measure was explored as a potential VMT reduction design feature.

  Measure T-17 estimates that an increased density of vehicular intersections improves street connectivity and helps in reduction in GHG emissions and corresponding VMT. As included in the CAPCOA handbook, this measure could be applied to a project for:

  > *'Projects that increase intersection density would be building a new street network in a subdivision or retrofitting an existing street network to improve connectivity (e.g., converting cul-de-sacs or dead-end streets to grid streets)'.*

  The measure establishes the following numerical formula of VMT reduction due to increased intersection density and improved street connectivity:

$$A = \frac{B - C}{C} * D$$

Where,

A = Percent Reduction in GHG/VMT emission from vehicle Travel

B = Intersection Density in project site with measure

C = Average Intersection Density for Typical developments (36)

D = Elasticity of VMT with respect to intersection density (-0.14)

The CAPCOA handbook establishes the variable C using an average density of intersections within a square mile in a typical development as included in the *Proposed Trip Generation, Distribution, and Transit Mode Split Forecasts for the Bayview Waterfront Project Transportation Study*, Fehr & Peers. 2009. This establishes the average suburban intersection density for the entire United States.

The CAPCOA handbook adapts the variable D, Elasticity of VMT with respect to intersection density from the report '*Does Compact Development Make People Drive Less*?' published in the Journal of the American Planning Association, 2016, authored by Mark R. Stevens. The elasticity was determined from a meta-regression analysis from data of fifteen studies, having studied in different urban/suburban geographic regions within the Country.

As indicated in section "1.1 – Project Description", the project is a gated community which has specified entry/exit ways that reduces accessibility to all project related traffic. While the increased intersection density helps facilitate greater number of short trips, the project consists of only single land use type (residential) and the amount of internal capture (trips that can be fulfilled within the project; with both origin and destinations within the project site) would be minimal. Also, CAPCOA suggests application of different VMT mitigation measures at different scales – project/site scale or community/plan scale. Based on CAPCOA handbook, this mitigation measure is applicable at a plan/community scale. However, this measure was explored as a VMT reduction design feature at a project scale with appropriate limitations as described below.

While all the internal intersections can be considered to estimate the VMT reduction due to increased street connectivity, given the above limitations (project location area type, single land use type, gated entry/exit, and CAPCOA applicability scale), only the five project driveways (three driveways on Baron Avenue and two driveways on Perrin Ave) out of total of seven project driveways were included to determine project intersection density. The two driveways on Hummel are adjacent to Enterprise Canal and do not connect to any roadways or bike facility and therefore they were not included in the project intersection density. The project site is approximately 71.54 acres. Therefore, the intersection density of the project would be approximately 44.73 intersections per square mile.

Since project intersection density is greater than the countrywide average intersection density of 36 intersections per square miles as identified in the CAPCOA handbook, it could be estimated that the project will help reduce project VMT due to a higher-than-average density of vehicular network intersections along with implementation of the project design features. The percentage of VMT reduction for the project could be determined as:

$$\%\ VMT\ reduction = \frac{44.73 - 36}{36} * (-0.14)$$

- Or -3.39 percent

As such, due to these improved vehicular network connection and project design features, the project will achieve 3.39 percent reduction in VMT compared to the project VMT that was estimated from the regional travel demand model.

- **Bicycle Infrastructure/Improvements:** The project proposes to construct a total of 1.19 miles of bike lanes along project frontage. Similar to pedestrian facilities, these bicycle design features included in the project can encourage increase active transportation mode share in the area. The CAPCOA manual was utilized to estimate the reduction of project VMT due to proposed bicycle improvements. Specifically, CAPCOA transportation measure "T-19A: Construct or Improve Bike Facility" was deemed applicable to estimate the VMT reduction due to project bicycle features. According to the measure, providing bicycle infrastructure helps to improve biking conditions within an area. This encourages a mode shift on the roadway parallel to the bicycle facility from vehicles to bicycles, displacing VMT and thus reducing GHG emissions. Based on CAPCOA estimates, the project bicycle design features have a potential to reduce up to 0.01 percent of the project VMT.

- **Provide Electric Vehicle (EV) Parking and EV Charging Infrastructure:** Accessible EV parking and provision of charging for electric vehicles in the residential units will encourage the use of EVs. The latest California Green Building Standards (CALGreen), California Building Code, requires provision of infrastructure to accommodate electric vehicle chargers for new single family and attached dwelling units/town houses. For new construction projects such as apartments, condos, hotels, and motels, CALGreen code requires the project to provide EV charging stations as a percentage of the total project parking. While it is understood that provision of electric charging infrastructure/stations might not reduce VMT, it will reduce GHG which can be considered equivalent to reduction in VMT. According to CAPCOA, provision of additional electric charging stations, in addition to CALGreen requirements, can be considered as a GHG/VMT mitigation. Provision of EV charging infrastructure has a potential to achieve a maximum VMT reduction of up to 11.9 percent. However, the project is a single-family residential development and as such doesn't propose to provide electric charging stations. While this project design feature has the potential to reduce GHG emissions, no direct VMT reduction has been accounted for this project design feature.

Table 2-B provides methodology, assumptions, and parameters used in the estimation/calculation of VMT reduction for the project along with the potential amount of VMT reduction that can be achieved.

In conclusion, project design features aim to promote overall mobility with the goal of reducing VMT and reducing greenhouse gas emissions. Implementation of the above project design features may possibly reduce the project's VMT by approximately up to 4.24 percent. The proposed measures and strategies should be monitored for their usage and effectiveness. A combination of measures from several VMT reduction strategies were incorporated into the Project design to achieve this VMT

reduction as outlined above. This included strategies that are aimed at reducing the number of automobile trips generated by the Project, shift more trips from automobile to non-automobile modes, and/or reduce the distances that people drive. Ultimately, however, the City of Clovis is a suburban community with land use characteristics that are more spread out when compared to dense urban communities. The land use and transportation characteristics of suburban communities such as Clovis, can make it difficult, or impossible to achieve VMT reductions to levels that the City has established as a goal, and ultimately, as a threshold of significance for CEQA analysis. The project design features are estimated to offset some of the VMT impacts of the project by reducing VMT by up to 4.24 percent, but this reduction will not reduce the impact to a less than significant level. Therefore, the project will have a significant and unavoidable transportation impact under CEQA.

2.4 LIST OF CHAPTER 2.0 TABLES

- Table 2-A: Existing (2019) Regional and Project VMT per Capita
- Table 2-B: Calculated VMT Reduction with Project Mitigation

Table 2-A: Existing (2019) Regional and Project VMT per Capita

Region (Fresno County)[1]	Project	Difference	Percentage Difference
14.1	17.8	3.7	26.4%

Source: Fresno Council of Governments' Activity-Based Model.

[1] The Fresno County VMT per capita was obtained from the Interim Transportation Impact Guidelines, City of Clovis (July 14, 2020).

VMT = vehicle miles traveled

Table 2-B: Calculated VMT Reduction with Project Mitigation

Mitigation Measure (Number corresponds to the 2021 CAPCOA Handbook)	Formula	Comments	Calculated Reduction in VMT (%)
Land Use (Maximum Reduction 30%)			
T-17: Improve Street Connectivity	A = ((B-C)/C) * D, Where B = Intersection density in project site with measure, C =Average intersection density (36 U.S. average), and D = Elasticity of VMT with respect to intersection density (-0.14 constant)	Based on the limitations described in detail above, five project driveways were considered to estimate the project intersection density. The project site is approximately 71.54 acres. Therefore, the intersection density of the project would be approximately 44.73 intersections per square mile. A = ((44.73-36)/36)*0.14 A = 0.2425*0.14 = 3.39%	3.39%
Neighborhood Design (Maximum Reduction 10%)			
T-18: Provide Pedestrian Network Improvement	A = ((C/B)-1) * D, Where B = Existing sidewalk length in study area, C =Sidewalk length in study area with measure, and D = Elasticity of household VMT with respect to the ratio of sidewalks-to-streets (-0.05 constant)	Based on the survey, the project study area includes approximately 10 miles of sidewalk. The project proposes to add approximately another 1.8 miles of sidewalk/pedestrian access. A = (((10.25+1.77)/10.25)-1)*0.05 A = ((12.03/10.25)-1)*0.05 A = 0.17*0.05 = 0.87%	0.87%
T-19-A: Construct or Improve Bike Facility	A = (B*(F/I)*(C+D)*E*G)/H, Where B = Percent of plan/community VMT on parallel roadway, C = Active transportation adjustment factor, D = Credits for key destinations near project, E = Growth factor adjustment for facility type, F = Annual days of use of new facility, G = Existing regional average one-way bicycle trip length, H = Existing regional average one-way vehicle trip length, and I = Days per year (365)	Variables C, D, E, F, G, and H were obtained from appropriate tables listed in CAPCOA handbook. It was assumed that 20% of VMT on the parallel roadway is from the community. A = (0.2*(320/365)*(0.0029+0.0005)*1*2.2)/11.7 A = (0.2*0.88*0.0034*1*2.2)/11.7 A = 0.01%	0.01%
Total VMT Reduction from All Subsectors			**4.24%**

Source: Handbook for Analyzing Greenhouse Gas Emission Reduction, Assessing Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association (CAPCOA), December 2021.

[1] Per CAPCOA total VMT reduction for multiple strategies within same subsector is calculated using the equation: 1-(1-A)*(1-B)*(1-C)... where A, B, C are equal to individual mitigation strategy reduction percentages.

When applied to the project, the calculation would be 1 - (1 - 0.039)*(1 – 0.0087)*(1 – 0.0001) = 0.0424, or 4.24%.

3.0 LOCAL TRANSPORTATION ANALYSIS METHODOLOGY

3.1 LEVEL OF SERVICE DEFINITIONS

A complete description of the meaning of LOS can be found in Transportation Research Board Special Report 209, *Highway Capacity Manual* (HCM). The HCM establishes LOS A through F for intersections. A description of LOS for signalized and unsignalized intersections is summarized in Table 3-A. A description of LOS for roadway segments is summarized in Table 3-B.

Table 3-C shows the LOS criteria for unsignalized and signalized intersections. For all study area intersections, the *Highway Capacity Manual 6th Edition* (HCM 6) analysis methodologies were used to determine intersection LOS. Intersection LOS was calculated using the Synchro 11 software, which uses the HCM 6 methodologies.

Peak-hour traffic operations were analyzed at roadway segments based on the peak-hour LOS thresholds obtained from Chapter 5.16, *Transportation and Traffic,* of the City's *General Plan and Development Code Update Draft Program Environmental Impact Report (EIR),* dated June 2014. Table 3-D summarizes the LOS criteria used to evaluate roadway segments based on the City's General Plan EIR. The peak-hour traffic volumes at roadway segments represent the total vehicles (both directions) traveling on the segments during the a.m. and p.m. peak hours.

3.2 LEVEL OF SERVICE PROCEDURES AND STANDARDS

Study intersections and roadway segments analyzed in this report are completely under the jurisdiction of the City of Clovis or lie at the borders of Clovis and Fresno. However, intersections located at freeway on-ramps and off-ramps are under the jurisdiction of Caltrans.

The City of Clovis considers LOS D as the LOS standard for study intersections and roadway segments under near-term conditions, unless a finding of overriding consideration was adopted in the City's General Plan EIR. The same criterion holds for long-term conditions, except for roadway segments that are adopted in the City's General Plan EIR to operate at LOS E or F. The City's TIA Guidelines do not define an LOS standard under Existing Plus Project conditions. For the purpose of this analysis, an LOS standard of D has been considered for intersections and roadway segments under Existing Plus Project conditions. The City considers the following operational deficiency criteria for study intersections:

- **Signalized Intersections**
    - If the project triggers a signalized intersection operating at an acceptable LOS to operate at an unacceptable LOS; OR
    - If the project increases the average delay for average delay for a signalized intersection that is already operating at an unacceptable LOS.

- **Unsignalized Intersections**
    - If the project triggers an unsignalized intersection operating at acceptable LOS to operate at unacceptable LOS (from E or better to F) and meet the signal warrants criteria; OR
    - If the project increases the applicable delay for an unsignalized study intersection that is already operating at unacceptable LOS and meets the signal warrant criteria.

The City's TIA Guidelines do not define an operational deficiency criterion for roadway segments. For purposes of this analysis, at roadway segments under the jurisdiction of the City of Clovis, an operational deficiency has been considered when the project causes an unsatisfactory condition (deterioration from LOS A through D to E or F) or when the project contributes to an existing or forecast deficiency.

Per the City of Fresno *Traffic Impact Study Report Guidelines,* updated February 2009, LOS D is considered the LOS standard for study intersections and roadway segments under near-term conditions. The same criterion holds for long-term conditions, except for roadway segments that are adopted in the City's Master General Plan to operate at LOS E or F. The City's TIA Guidelines do not define an LOS standard under Existing Plus Project conditions.

It should be noted that all City of Fresno study intersections and roadway segments are located within the City of Fresno Traffic Impact Zone (TIZ) III. Per the City of Fresno's General Plan, all intersections and roadway segments within TIZ III should maintain a peak-hour LOS standard of D or better. Therefore, an LOS standard of D has been considered for intersections and roadway segments within Fresno for all analysis conditions. The City of Fresno considers the following operational deficiency criteria for study intersections:

- An operational deficiency is created if the addition of the project traffic results in any one of the following:
    - Causes the intersection LOS to change from acceptable to unacceptable levels; OR
    - Causes the intersection LOS to change from an unacceptable LOS (LOS E) to LOS F; OR
    - Increases the average delay at a study intersection that is already operating at an unacceptable LOS.

City of Fresno's Traffic Impact Study guidelines do not define an operational deficiency criterion for roadway segments. Therefore, for purposes of this analysis, at intersections under City of Fresno jurisdiction, an operational deficiency has been considered when the project causes an unsatisfactory condition (deterioration from LOS A through D to E or F) or when the project contributes to an existing or forecast deficiency.

Caltrans considers an acceptable LOS to be between LOS C and D at all intersections under its jurisdiction (delay of 45 seconds at signalized intersections). Caltrans does not have any operational deficiency criteria for study intersections. Therefore, an operational deficiency occurs when the project causes an unsatisfactory condition (deterioration from LOS A through D to E or F) for

intersections or when the project contributes to an existing or forecast deficiency. The project needs to identify improvements to improve the intersection LOS to an acceptable level.

3.3 LIST OF CHAPTER 3.0 TABLES

- Table 3-A: Intersection Level of Service Definitions
- Table 3-B: Roadway Segment Level of Service Definitions
- Table 3-C: Level of Service Criteria for Unsignalized and Signalized Intersections
- Table 3-D: Roadway Segment Capacity and Levels of Service

Table 3-A: Intersection Level of Service Definitions

LOS	Description
A	Traffic operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	Traffic operations with control delay between 10 seconds per vehicle and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.
C	Traffic operations with control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of the insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	Traffic operations with control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
E	Traffic operations with control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	Traffic operations with control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual (6th Edition).
LOS = level of service

Table 3-B: Roadway Segment Level of Service Definitions

LOS	Description
A	Describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control Delay at the boundary intersection is minimal. The travel speed exceeds 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
B	Describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the boundary is not significant. The travel speed is between 67% and 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
C	Describes stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersection may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
D	Indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
E	Characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
F	Characterized by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is between 30% or less of the base free-flow speed, and the volume-to-capacity ratio is greater than 1.0.

Source: Highway Capacity Manual (6th Edition).
LOS = level of service

Table 3-C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec)	Signalized Intersection Average Delay per Vehicle (sec)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Highway Capacity Manual (6th Edition).
sec = seconds

Table 3-D: Roadway Segment Capacity and Levels of Service

Classification	Median Type	Number of Lanes	Peak-Hour LOS Volume Thresholds				
			LOS A	LOS B	LOS C	LOS D	LOS E
Freeway	N/A	4	2,720	4,460	6,630	7,720	8,630
		3+Aux	2,360	3,860	5,640	6,730	7,530
		3	2,000	3,270	4,660	5,740	6,430
		2+Aux	1,650	2,700	3,850	4,760	5,340
		2	1,300	2,130	3,050	3,790	4,260
Expressway (Caltrans)	Divided	6	2,280	3,750	5,400	7,030	7,980
		4	1,510	2,500	3,600	4,680	5,310
Expressway (City)	Raised Median	6	-	-	3,290	6,120	6,400
		5	-	-	2,685	5,090	5,330
		4	-	-	2,080	4,060	4,260
		3	-	-	1,475	3,030	3,190
Arterial	Raised-Median	8	-	-	4,180	7,210	7,580
		6	-	-	3,060	5,390	5,680
		5	-	-	2,500	4,480	4,730
		4	-	-	1,950	3,580	3,780
		3	-	-	1,400	2,670	2,830
		2	-	-	860	1,770	1,880
	TWLTL	4	-	-	1,840	3,400	3,590
		2	-	-	810	1,680	1,790
	Undivided	4	-	-	1,320	2,500	2,640
		2	-	-	570	1,230	1,310
Collector	TWLTL	4	-	-	1,840	3,400	3,590
		3	-	-	1,325	2,540	2,690
		2	-	-	810	1,680	1,790
	Undivided	4	-	-	1,320	2,500	2,640
		2	-	-	570	1,230	1,310
State Highway	Undivided	2	310	570	1,020	1,730	2,470
Rural Arterial	Divided	4	-	-	1,950	3,580	3,780
	Undivided	2	-	-	570	1,230	1,310
Rural Collector/Local	Undivided	2	-	-	570	930	1,000

Source: City of Clovis General Plan and Development Code Update Draft Program Environmental Impact Report (EIR), dated June 2014

Aux = Auxiliary Lane
Caltrans = California Department of Transportation
City = City of Clovis
LOS = level of service
TWLTL= two-way-left-turn-lane median
N/A= not applicable

4.0 CIRCULATION NETWORK SETTING

4.1 EXISTING CIRCULATION NETWORK

The project study area includes the following major roadways as classified based on the roadway classification provided in the Circulation Element of the City's General Plan. Figure 4-1 summarizes the classifications of major roadways within the study area. Following is a brief description of these roadways:

- **Willow Avenue:** Willow Avenue is designated as an Arterial in the City's General Plan. Between International Avenue and Shepherd Avenue, Willow Avenue is a six-lane, divided Arterial with a raised median. There are bicycle lanes along both directions of this segment. However, there is no provision for on-street parking.

- **Minnewawa Avenue:** Within the study area, Minnewawa Avenue is designated as an Collector between International Avenue and Behymer Avenue, and as an Arterial between Behymer Avenue and Shepherd Avenue in the City's General Plan. Between International Avenue and Shepherd Avenue, Minnewawa Avenue is a two-lane, undivided road. There are bicycle lanes along both directions of this segment. However, there is no provision for on-street parking.

- **Clovis Avenue:** Clovis Avenue is designated as an Arterial in the City's General Plan. Between Baron Avenue and Herndon Avenue, Clovis Avenue is mostly a four-lane, divided Arterial with a raised median or a two-way-left-turn lane (TWLTL) median. There are bicycle lanes along some portions of this segment. However, there is no provision for on-street parking.

- **Sunnyside Avenue:** Sunnyside Avenue is designated as a Collector in the City's General Plan. Within the study area, Sunnyside Avenue is a two-lane, undivided road. There are no bicycle facilities along both directions of this segment. There is also no provision for on-street parking.

- **Fowler Avenue:** Fowler Avenue is designated as a Rural Collector between Behymer Avenue and Shepherd Avenue, and as an Arterial between Shepherd Avenue and the State Route 168 (SR-168) Westbound Ramps in the City's General Plan. Between Behymer Avenue and Nees Avenue, Fowler Avenue is a two-lane partly divided and partly undivided road. There is a bicycle lane in the southbound direction only along a small portion of this segment near the intersection with Shepherd Avenue. There is no provision for on-street parking. Between Nees Avenue and Goshen Avenue, Fowler Avenue is a three-lane divided road with a raised median. There is a bicycle lane only along the northbound direction of this segment. There is no provision for on-street parking. Between Goshen Avenue and the SR-168 Westbound Ramps, Fowler Avenue is a four-lane divided road with a raised median. There are bicycle lanes along both directions of this segment. There is no provision for on-street parking.

- **International Avenue:** International Avenue is designated as a Collector between Willow Avenue and Minnewawa Avenue in the City's General Plan. Within the study area, International Avenue is a two-lane, undivided road. There are no bicycle facilities along both directions of this segment. There is also no provision for on-street parking.

- **Behymer Avenue:** Within the study area, Behymer Avenue is designated as an Arterial between Willow Avenue and Clovis Avenue, as a Collector between Clovis Avenue and Sunnyside Avenue, and as a Rural Collector between Sunnyside Avenue and Fowler Avenue in the City's General Plan. Between Willow Avenue and Fowler Avenue, Behymer Avenue is a two-lane, undivided road. There are no bicycle facilities along both directions of this segment. There is also no provision for on-street parking.

- **Shepherd Avenue:** Within the study area, Shepherd Avenue is designated as an Arterial between Willow Avenue and Clovis Avenue, and as an Expressway between Clovis Avenue and Fowler Avenue in the City's General Plan. Between Willow Avenue and Sunnyside Avenue, Shepherd Avenue is a three-lane, divided road with a raised median, while between Sunnyside Avenue and Fowler Avenue, it is a two-lane, partly undivided, and partly divided road. There are bicycle lanes along both directions of the segment between Willow Avenue and Sunnyside Avenue. There are no bicycle facilities along any direction of the segment between Sunnyside Avenue and Fowler Avenue. There is no provision for on-street parking along any of these segments.

- **Teague Avenue:** Teague Avenue is designated as a Collector in the City's General Plan. Between Sunnyside Avenue and Fowler Avenue, Teague Avenue is a two-lane, undivided Arterial. There are no bicycle facilities along both directions of this segment. There is also no provision for on-street parking.

- **Nees Avenue:** Within the study area, Nees Avenue is designated as an Arterial in the City's General Plan. Between Clovis Avenue and Sunnyside Avenue, Nees Avenue is a mostly two-lane undivided road. There is a bicycle lane in the eastbound direction only along a small portion of this segment near the intersection with Sunnyside Avenue. However, there is no provision for on-street parking. Between Sunnyside Avenue and Fowler Avenue, Nees Avenue is a three-lane divided arterial with a raised median or a TWLTL median. There are bicycle lanes along some portions of this segment. However, there is no provision for on-street parking.

- **Alluvial Avenue:** Within the study area, Alluvial Avenue is designated as a Collector in the City's General Plan. Between Clovis Avenue and Sunnyside Avenue, Alluvial Avenue is a two-lane, divided Collector with a TWLTL median. However, between Sunnyside Avenue and Fowler Avenue, Alluvial Avenue is a partly three-lane and partly four-lane undivided Collector. There are bicycle lanes along both directions of these segments. However, there is no provision for on-street parking.

- **Herndon Avenue:** Within the study area, Herndon Avenue is designated as an Arterial in the City's General Plan. Between the SR-168 Eastbound Ramps and Clovis Avenue, Herndon Avenue is a 10-lane, divided Arterial with a raised median. There are no bicycle facilities along any direction of this segment. There is also no provision for on-street parking.

Figure 4-2 illustrates existing plus project study intersection geometrics and traffic control. Figure 4-3 illustrates study intersection geometrics and traffic control under 'plus project' scenarios.

4.2 TRANSIT, BICYCLES, AND PEDESTRIANS

4.2.1 Transit Network

Clovis Transit Stageline Routes 10 and 80 operate within the study area. Route 10 operates from Monday through Saturday, while Route 80 operates only on school days, based on the Clovis Unified School District schedule. Route 10 provide access to Fresno State University and, and Route 80 provides access to Buchanan Education Complex.

Fresno Area Express (FAX) operates within the study area along Willow Avenue 7 days a week. The route connects communities in Fresno to the different campuses of Clovis Community College.

In addition to fixed route services, Round Up is the Clovis paratransit service for disabled City residents. Round Up transit vehicles are all accessible in accordance with the Americans with Disabilities Act (ADA) standards.

4.2.2 Bicycle Network

The vision of the City of Clovis *Active Transportation Plan (ATP)*, updated January 2022, is a "city with a complete and connected network of trails, walkways, and bikeways that provides convenient and intuitive connections to key destinations and supports travel within and between neighborhoods. The network improves quality of life by encouraging walking and bicycling for transportation and recreation." The ATP identifies different strategies to improve safety and accessibility for active modes of transportation such as walking and biking. There are four different types of bicycle facilities in the City:

- Class I (Trails)
- Class II (Bicycle Lanes)
- Class II (Buffered Bicycle Lanes)
- Class III (Bicycle Routes)

One of the long-term visions of the City includes upgrading existing or recommended Class II Bicycle Lanes and Buffered Bicycle Lanes to Class IV Separated Bicycle Lanes.

Figures 4-4 and 4-5 illustrate the existing and proposed bicycle facilities within the City. At present, Class II bicycle lanes exist along Clovis Avenue, Willow Avenue, and some segments of Shepherd Avenue and Fowler Avenue within the study area. However, as shown in Figure 4-5, different bicycle facilities are proposed along other roadways within the study area, such as Sunnyside Avenue, Teague Avenue, Nees Avenue, and Alluvial Avenue.

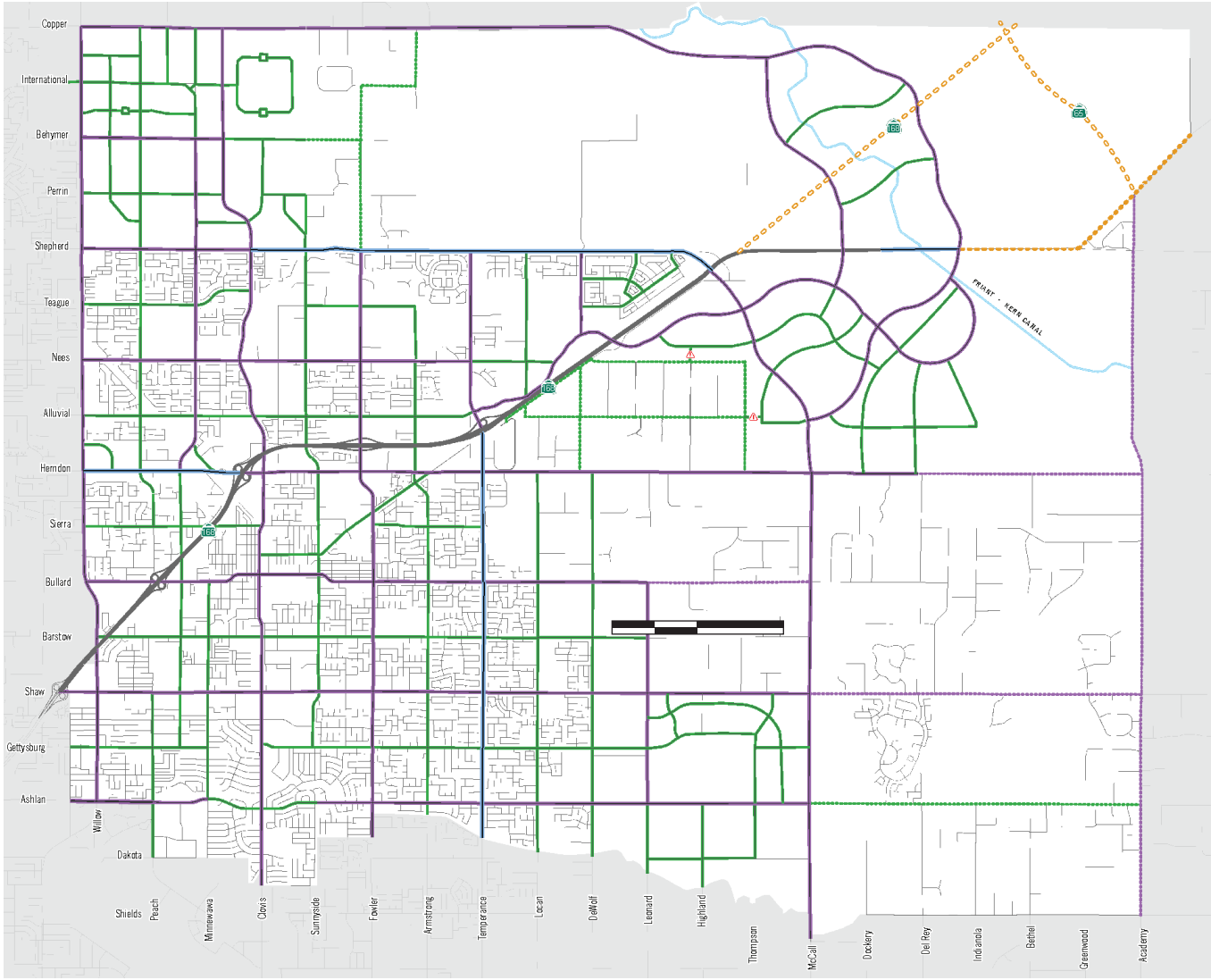
4.2.3 Pedestrian Network

The City has an extensive pedestrian network, with sidewalks along most of the major roads. However, since a portion of the study area falls within recently incorporated areas of the City, sidewalks are not present because they were previously developed as per unincorporated Fresno County design guidelines. Figure 4-6 illustrates the existing sidewalk facilities within Clovis.

The City's ATP has identified improvements to the pedestrian network based on a citywide sidewalk network gap analysis. Additionally, several potential locations have been identified to install mid-block crossings to improve trail connectivity throughout Clovis. Figure 4-7 illustrates the existing and proposed trails in Clovis and the potential locations of the mid-block trail crossings. As shown on Figure 4-7, two trails (i.e., the Dry Creek Trail and the Enterprise Trail) currently exist within the study area. However, additional trails are being proposed in the study area with potential mid-block crossings.

4.3 LIST OF CHAPTER 4.0 FIGURES

- Figure 4-1: City of Clovis Roadway Classifications
- Figure 4-2: Existing Study Intersection Geometrics and Traffic Control
- Figure 4-3: Study Intersection Geometrics and Traffic Control under 'Plus Project' Scenarios
- Figure 4-4: City of Clovis Existing Bicycle Facilities
- Figure 4-5: City of Clovis Proposed Bicycle Facilities
- Figure 4-6: City of Clovis Existing Sidewalk Facilities
- Figure 4-7: City of Clovis Existing and Proposed Trails and Potential Mid-Block Crossings



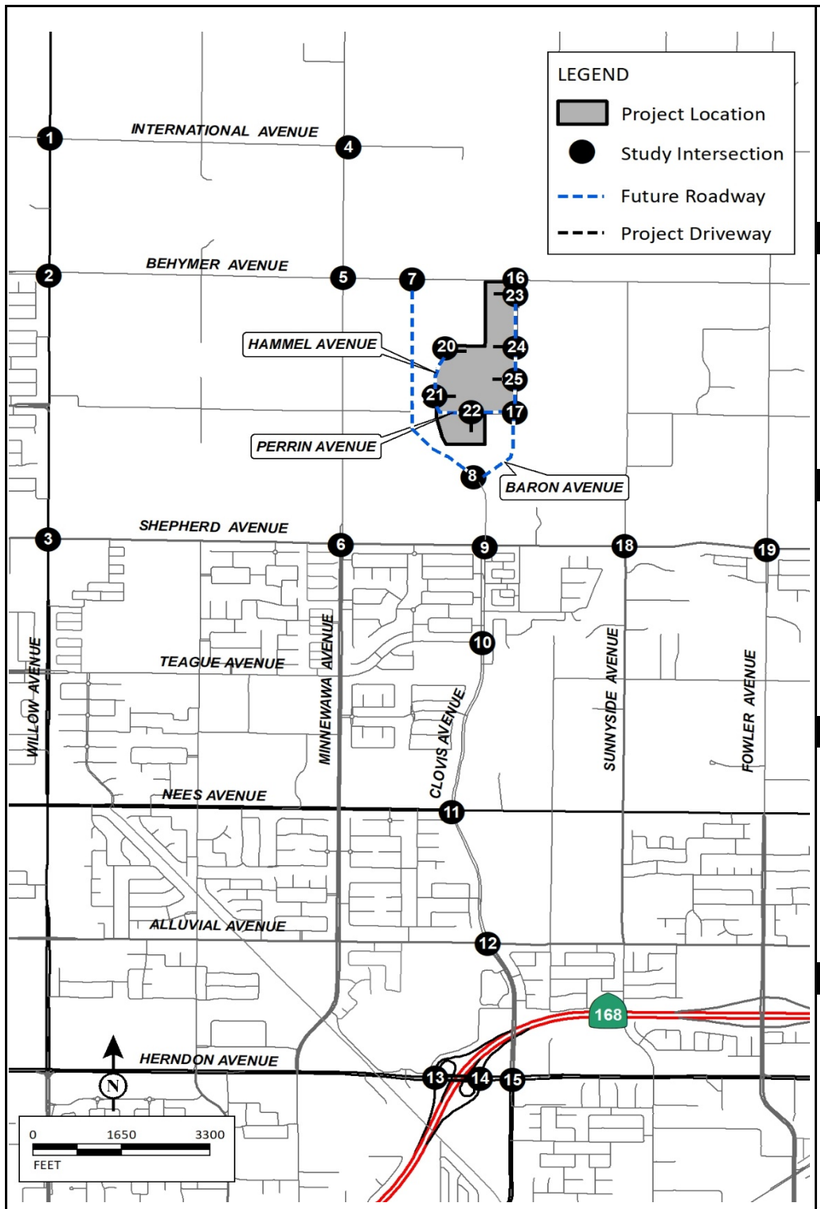
LSA

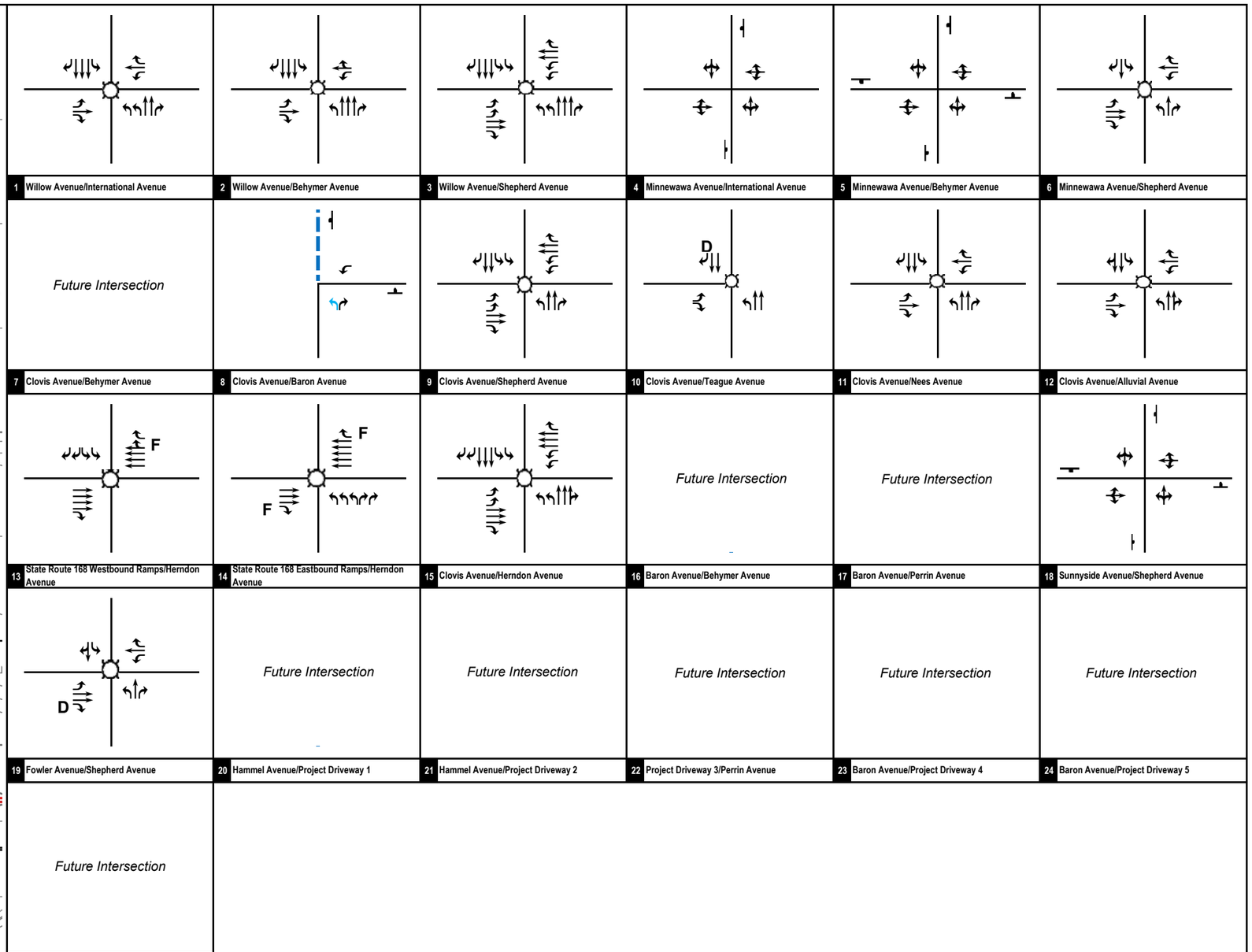
FIGURE 4-1

Tract Map 6343 Project
Transportation Impact Analysis

City of Clovis Roadway Classifi

SOURCE: Clovis General Plan, August 2014
I:\CIT2201-RIV\Reports\fig4-1_Rdwy Classification_Clovis.ai (2/12/2023)





LSA

FIGURE 4-2

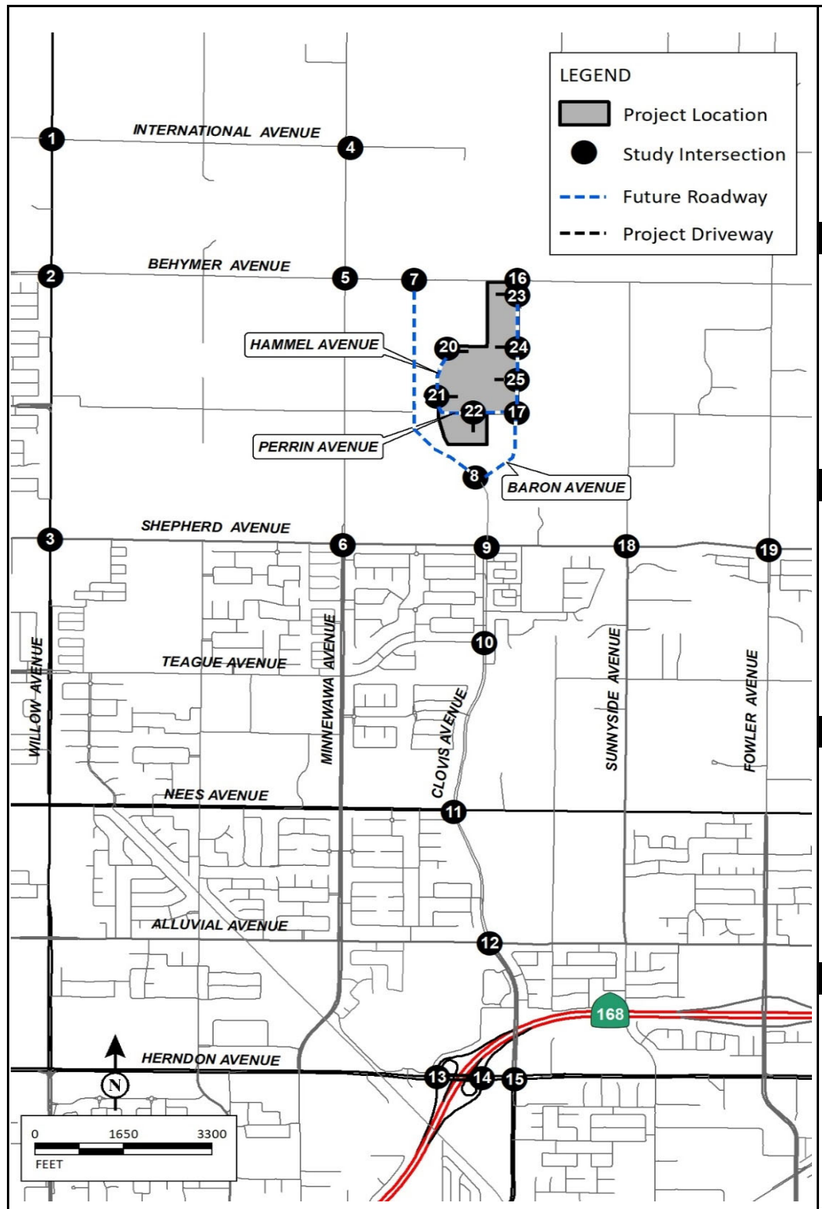
Legend

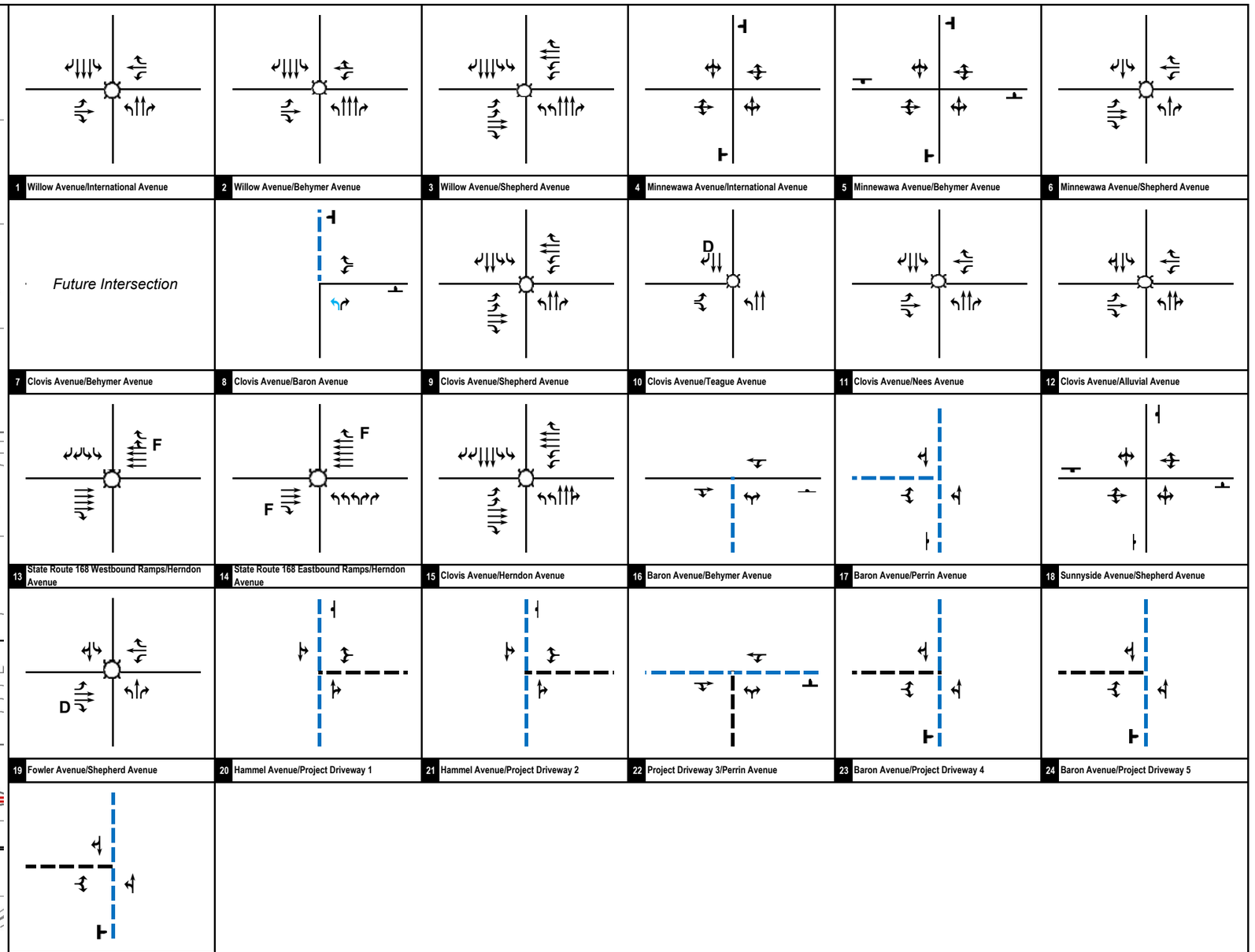
Signal
Stop Sign
D Defacto right turn
F Free right-turn
O Right-turn overlap
Y Yield
Future Roadway
Project Driveway
U-turn

Tract Map 6343 Project
Transportation Impact Analysis

Existing Study Intersection Geometrics and Traffic Control

P:\CIT2201-TM 6343\PRODUCTS\Traffic\g-45_Geo_Exist NP .xlsx 2/22/2023





LSA

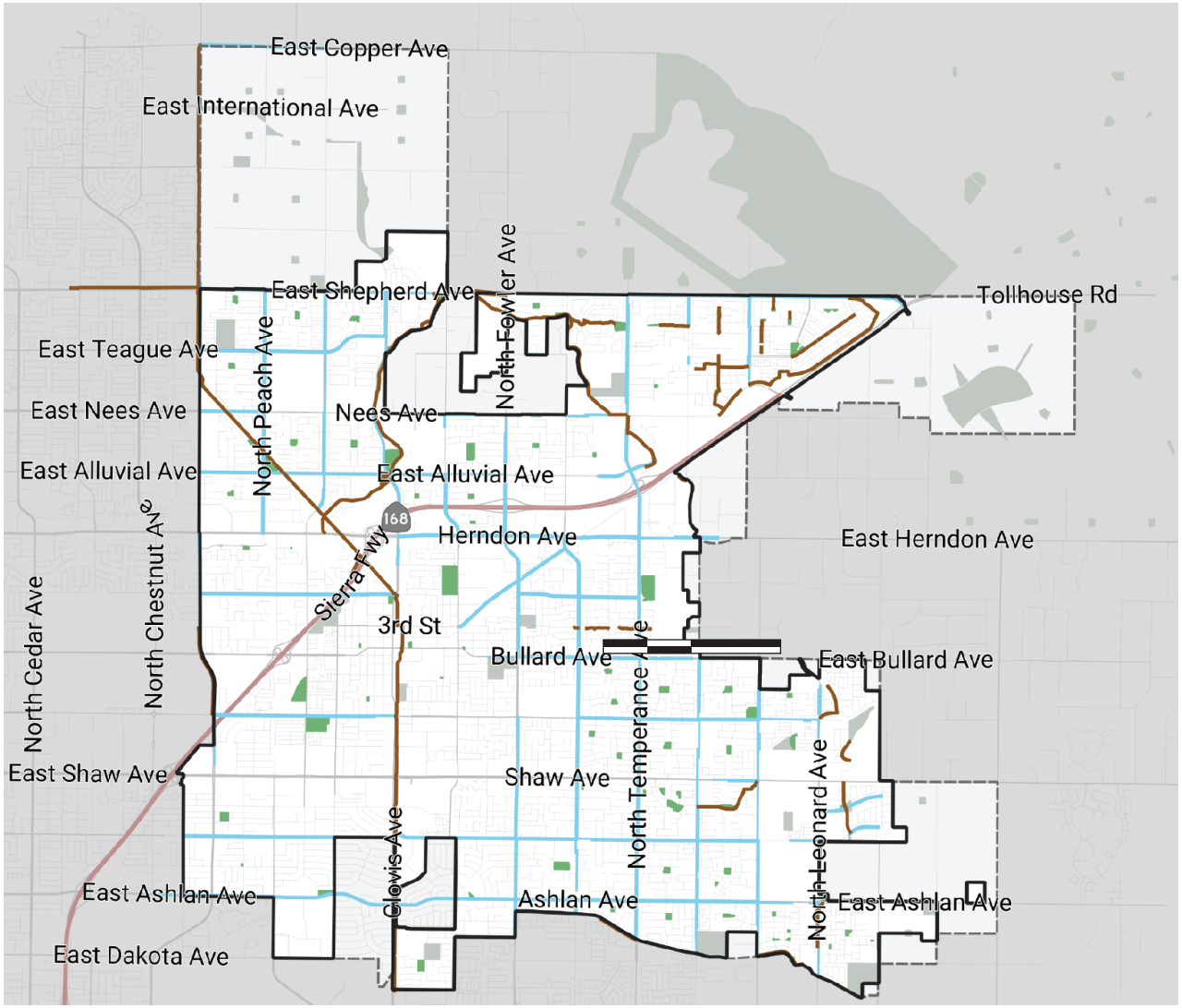
FIGURE 4-3

Legend

Signal	F Free right-turn	Future Roadway
Stop Sign	O Right-turn overlap	Project Driveway
D Defacto right turn	Y Yield	U-turn

Tract Map 6343 Project
Transportation Impact Analysis

Study Intersection Geometrics and Traffic Control under "Plus Project" Scenarios



LSA

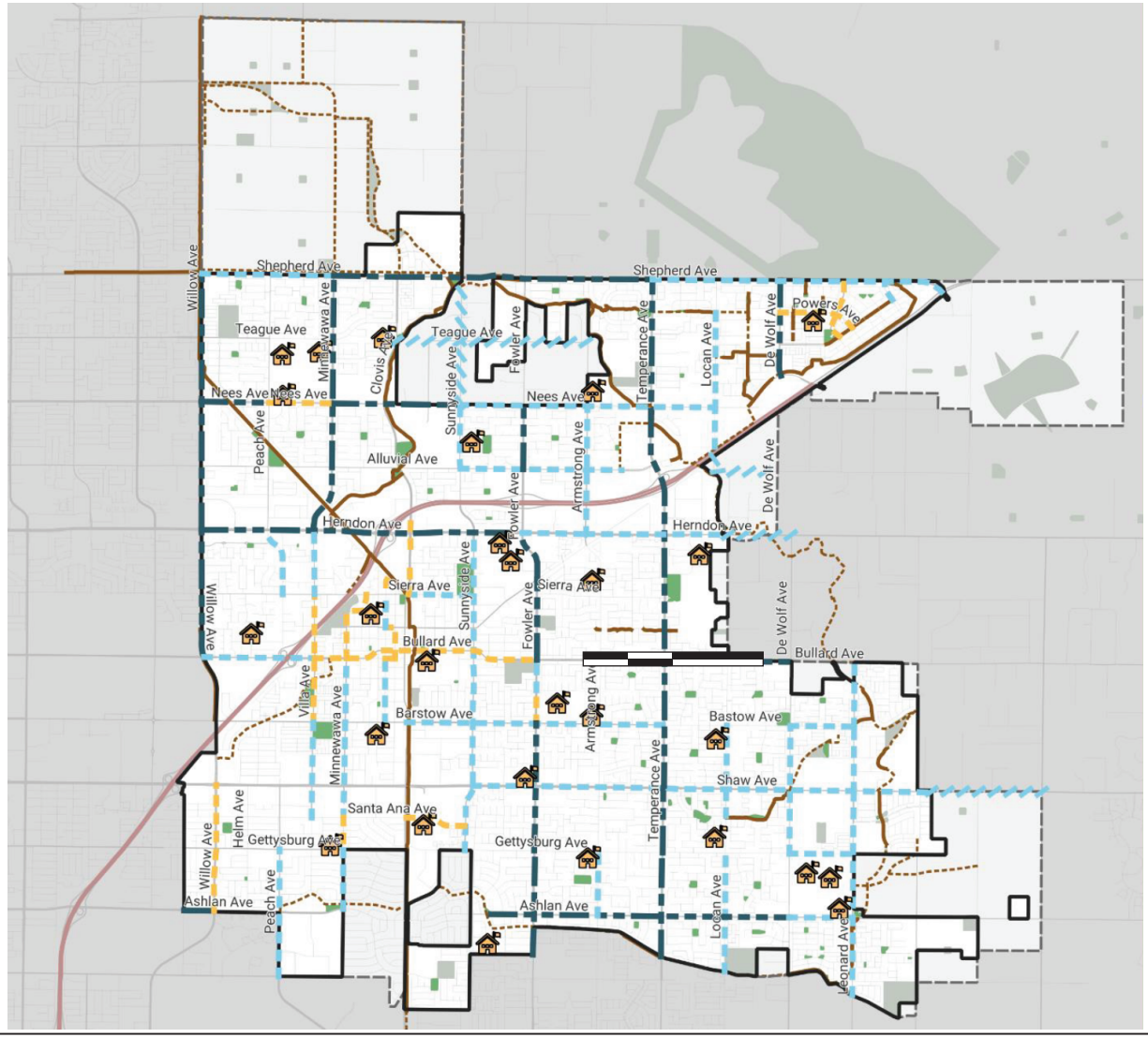
N

FIGURE 4-4

Tract Map 6343 Project
Transportation Impact Analysis

City of Clovis Existing Bicycle Fac

SOURCE: Clovis Active Transportation Plan Update 2022 -Public Review Draft
I:\CIT2201-RIV\GIS\Reports\fig4-4_Ex_Bike_Clovis.ai (2/12/2023)



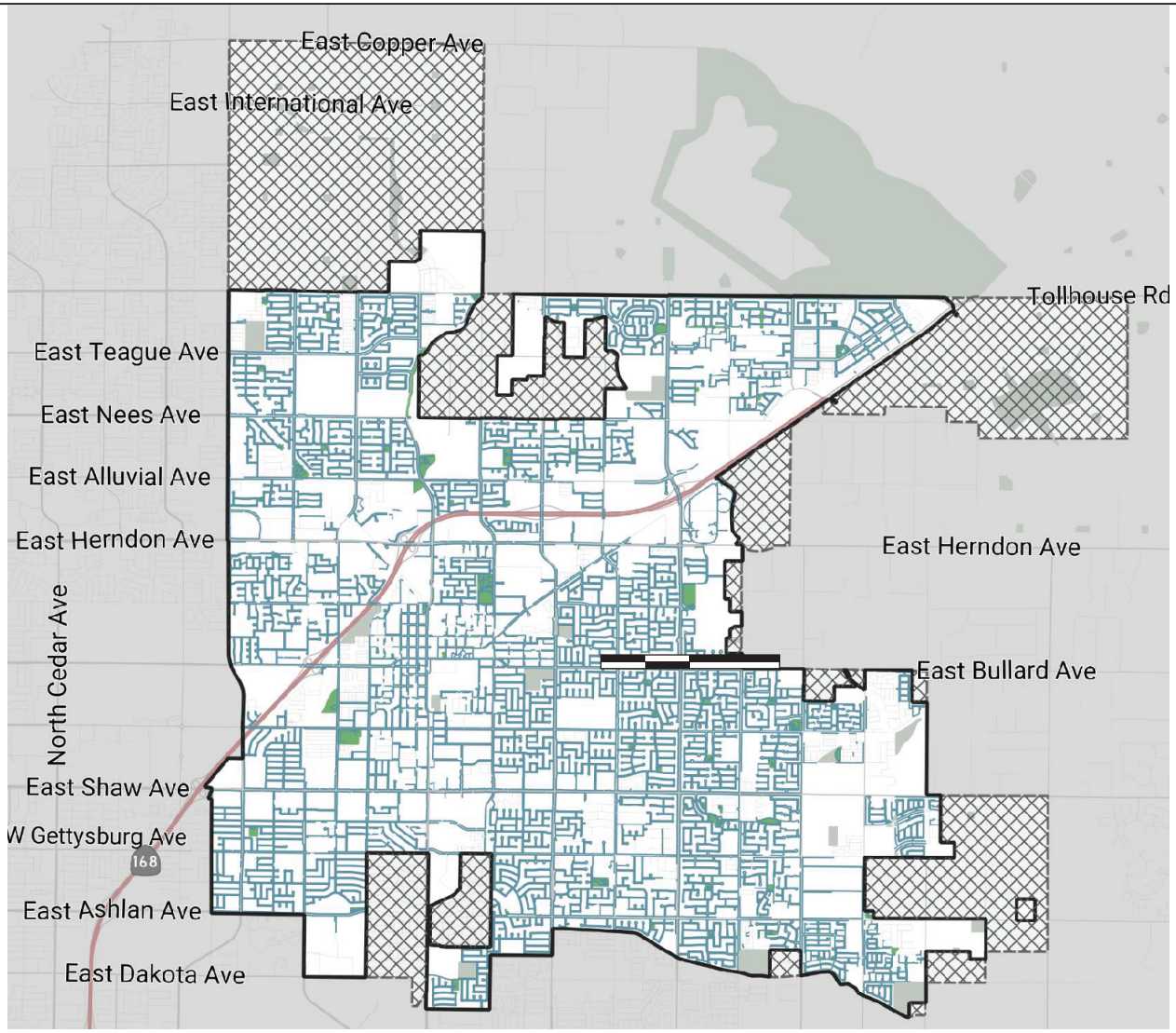
LSA

FIGURE 4-5

Tract Map 6343 Project
Transportation Impact Analysis

City of Clovis Proposed Bicycle Fac

SOURCE: Clovis Active Transportation Plan Update 2022 -Public Review Draft
I:\CIT2201-RIV\Reports\fig4-5_Bike_Proposed_Clovis.ai (2/12/2023)



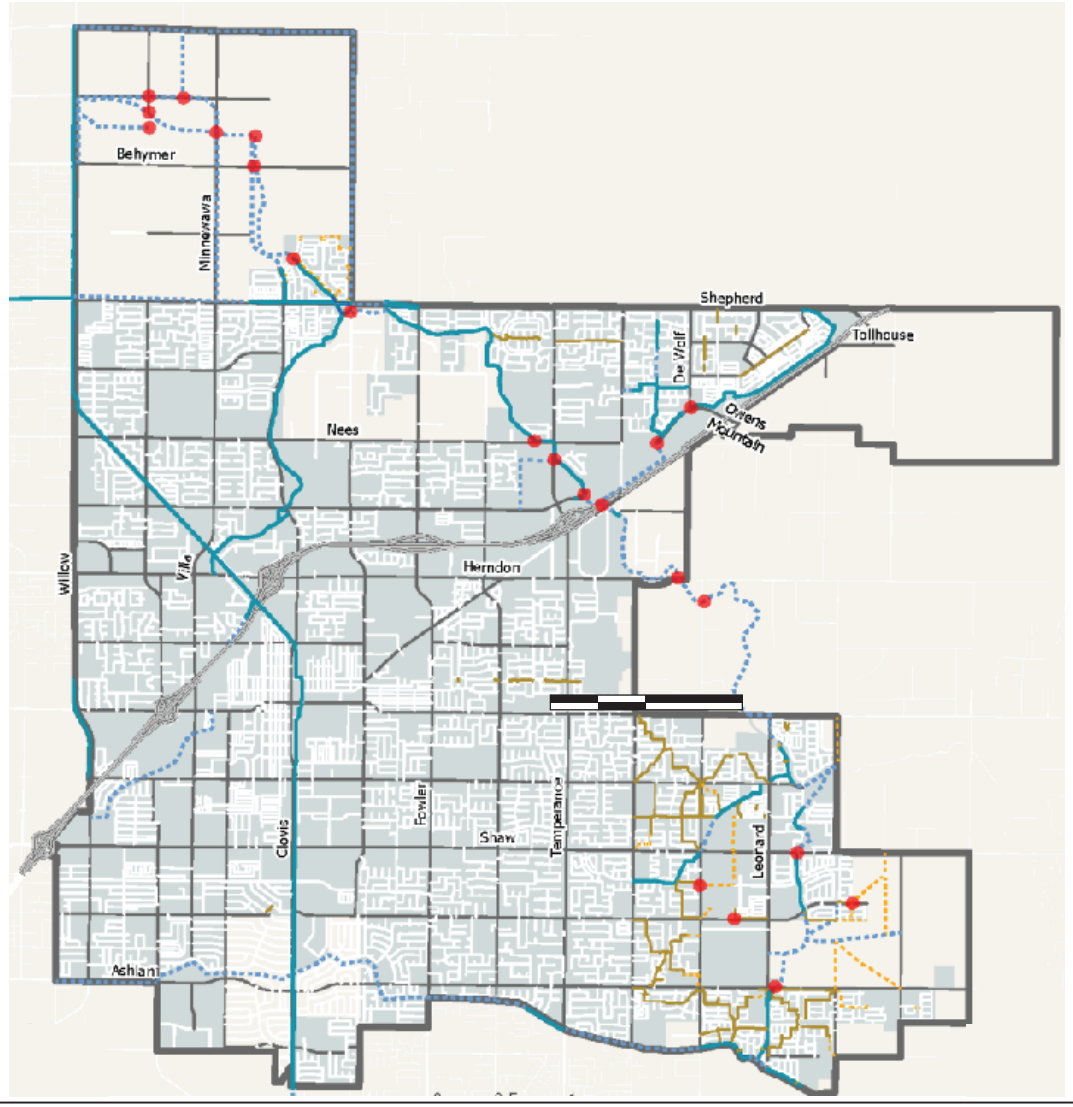
LSA

FIGURE 4-6

Tract Map 6343 Project
Transportation Impact Analysis

City of Clovis Existing Sidewalks Fac

SOURCE: Clovis Active Transportation Plan Update 2022 -Public Review Draft
I:\CIT2201-RIV\GIS\Reports\fig3-G_Ex_Sidewalks_Clovis.ai (2/12/2023)



LSA

FIGURE 4-7

Tract Map 6343 Project
Transportation Impact Analysis

City of Clovis Existing and Proposed Trails and Potential Mid Block Cro

SOURCE: Clovis Active Transportation Plan Update 2022 -Public Review Draft
I:\CIT2201-RIV\GIS\Reports\fig4-7_Ex_Trails and Block_Clovis.ai (2/8/2023)

5.0 TRAFFIC VOLUMES FOR WITHOUT PROJECT SCENARIOS

5.1 EXISTING TRAFFIC VOLUMES

Traffic volumes for existing conditions were developed using existing count data collected by Counts Unlimited at study intersections and roadway segments in May 2022, when schools were in session. Daily tube counts were collected for roadway segments while a.m. and p.m. peak-hour turning movement counts were collected at study intersections. Detailed count sheets are included in Appendix C.

Vehicle classification counts were collected at selected study area intersections. Truck percentages for every approach at these intersections were obtained from the classification counts. As for the remaining study intersections without classification counts, truck percentages for the various approaches were obtained based on the truck percentages at the adjacent intersections.

Figure 5-1 illustrates peak-hour traffic volumes at study intersections under existing conditions. Table 5-A shows peak-hour traffic volumes at roadway segments under existing conditions.

5.2 NEAR-TERM (2026) WITHOUT PROJECT TRAFFIC VOLUMES

As approved during the City's scoping agreement process (Appendix A), traffic volumes for near-term conditions were developed by adding trips from cumulative projects in the area to existing traffic volumes.

Information concerning cumulative projects in the vicinity of the proposed project was obtained from City staff and from the adjacent jurisdictions of City of Fresno and County of Fresno. Figure 5-2 illustrates the cumulative project locations.

Trip generations for cumulative projects were either obtained from the respective traffic studies prepared for the projects or developed using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition). Table 5-B summarizes the cumulative project trip generation. As shown in Table 5-B, the cumulative projects are expected to generate 9,615 net a.m. peak-hour trips, 13,862 net p.m. peak-hour trips, and 150,803 net daily trips.

Cumulative project trips were assigned to the roadway network based on either the distributions provided in the respective traffic studies for these projects or their locations in relation to surrounding land uses and regional arterials. Figure 5-3 illustrates the peak-hour cumulative project trip assignment at study area intersections. Figure 5-4 illustrates the peak-hour traffic volumes at study intersections under near-term conditions. Table 5-C shows the peak-hour traffic volumes at roadway segments under near-term conditions.

It should be noted that volume development for this scenario have been conducted as an intermediate step for the development of traffic volumes for the Near-Term Plus Project Conditions. As such, as recommended in the City's TIA Guidelines and approved during the scoping agreement process, this scenario has not been analyzed in the LTA.

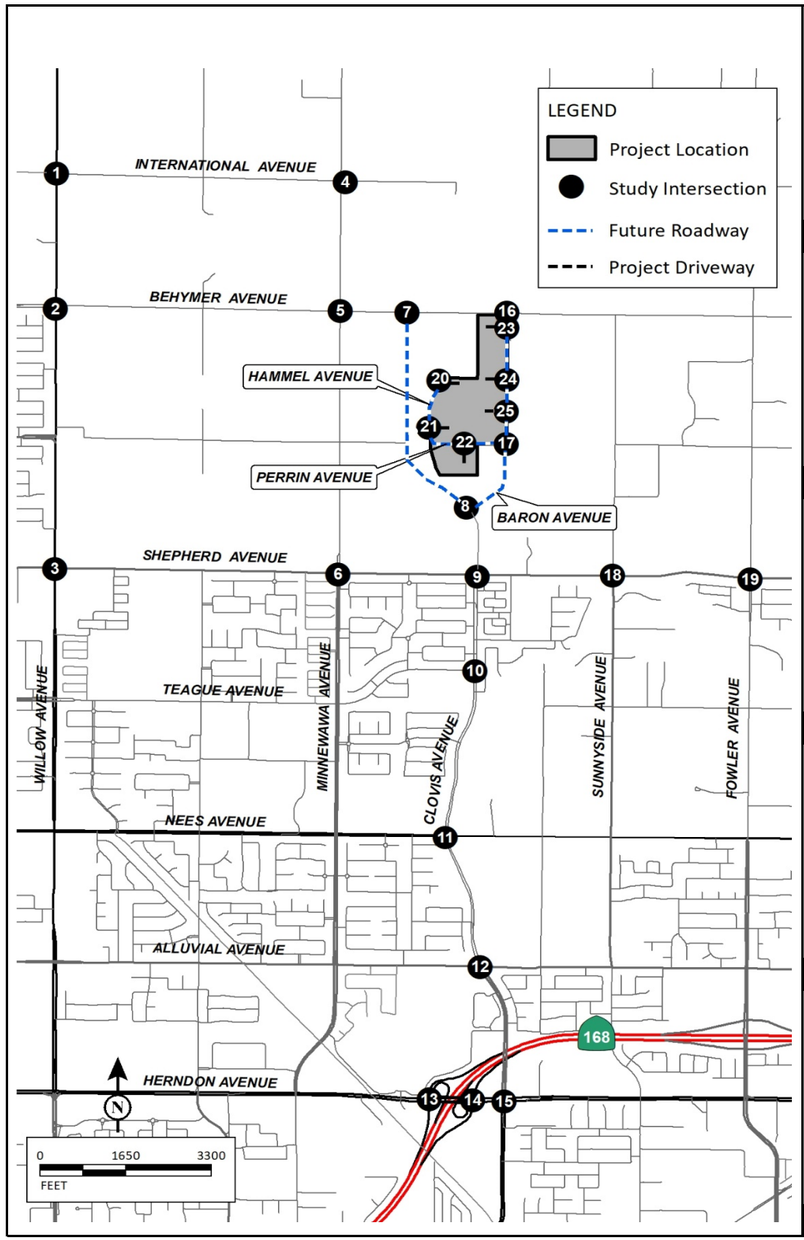
5.3 CUMULATIVE (2046) WITHOUT PROJECT TRAFFIC VOLUMES

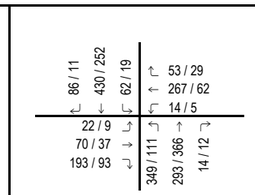
Traffic volumes for cumulative conditions were developed using the Fresno COG ABM. The methodology used to develop cumulative traffic volumes at all study intersections is consistent with the National Cooperative Highway Research Program (NCHRP) and Fresno COG's procedures for post-processing of modeled traffic volumes. Figure 5-5 illustrates the peak-hour traffic volumes at study intersections under cumulative conditions. Table 5-D shows the peak-hour traffic volumes at roadway segments under cumulative conditions.

Detailed volume development worksheets are included in Appendix D.

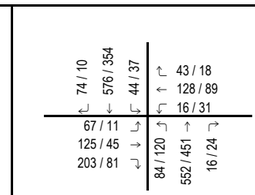
5.4 LIST OF CHAPTER 4.0 FIGURES AND TABLES

- Figure 5-1: Existing Peak-Hour Traffic Volumes
- Figure 5-2: Cumulative Project Locations
- Figure 5-3: Cumulative Projects Trip Assignment
- Figure 5-4: Near-Term (2026) without Project Peak-Hour Traffic Volumes
- Figure 5-5: Cumulative (2046) without Project Peak-Hour Traffic Volumes
- Table 5-A: Existing Roadway Segment Peak-Hour Traffic Volumes
- Table 5-B: Cumulative Projects Trip Generation
- Table 5-C: Near-Term (2026) Roadway Segment Peak-Hour Traffic Volumes
- Table 5-D: Cumulative (2046) Roadway Segment Peak-Hour Traffic Volumes

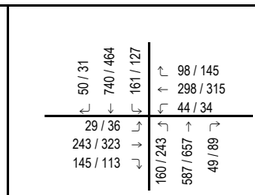




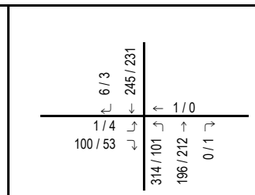
1 Willow Avenue/International Avenue



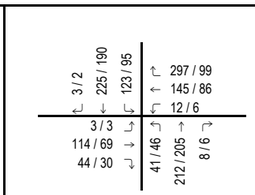
2 Willow Avenue/Behymer Avenue



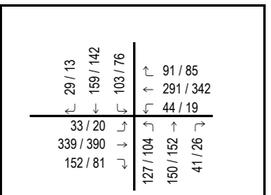
3 Willow Avenue/Shepherd Avenue



4 Minnewawa Avenue/International Avenue



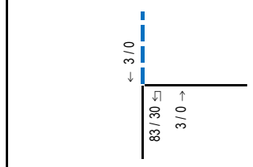
5 Minnewawa Avenue/Behymer Avenue



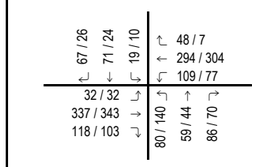
6 Minnewawa Avenue/Shepherd Avenue

Future Intersection

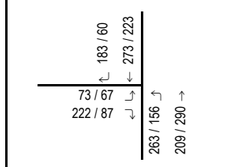
7 Clovis Avenue/Behymer Avenue



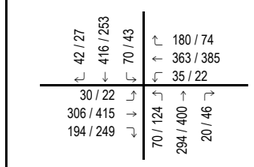
8 Clovis Avenue/Baron Avenue



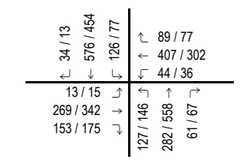
9 Clovis Avenue/Shepherd Avenue



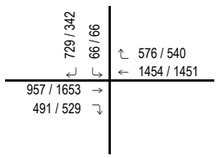
10 Clovis Avenue/Teague Avenue



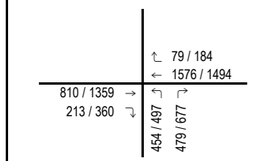
11 Clovis Avenue/Nees Avenue



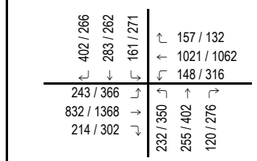
12 Clovis Avenue/Alluvial Avenue



13 State Route 168 Westbound Ramps/Herndon Avenue



14 State Route 168 Eastbound Ramps/Herndon Avenue



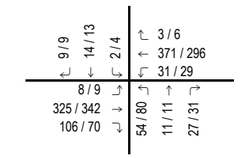
15 Clovis Avenue/Herndon Avenue

Future Intersection

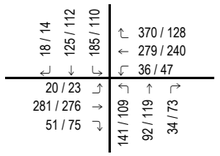
16 Baron Avenue/Behymer Avenue

Future Intersection

17 Baron Avenue/Perrin Avenue



18 Sunnyside Avenue/Shepherd Avenue



19 Fowler Avenue/Shepherd Avenue

Future Intersection

20 Hammel Avenue/Project Driveway 1

Future Intersection

21 Hammel Avenue/Project Driveway 2

Future Intersection

22 Project Driveway 3/Perrin Avenue

Future Intersection

23 Baron Avenue/Project Driveway 4

Future Intersection

24 Baron Avenue/Project Driveway 5

Future Intersection

25 Baron Avenue/Project Driveway 6

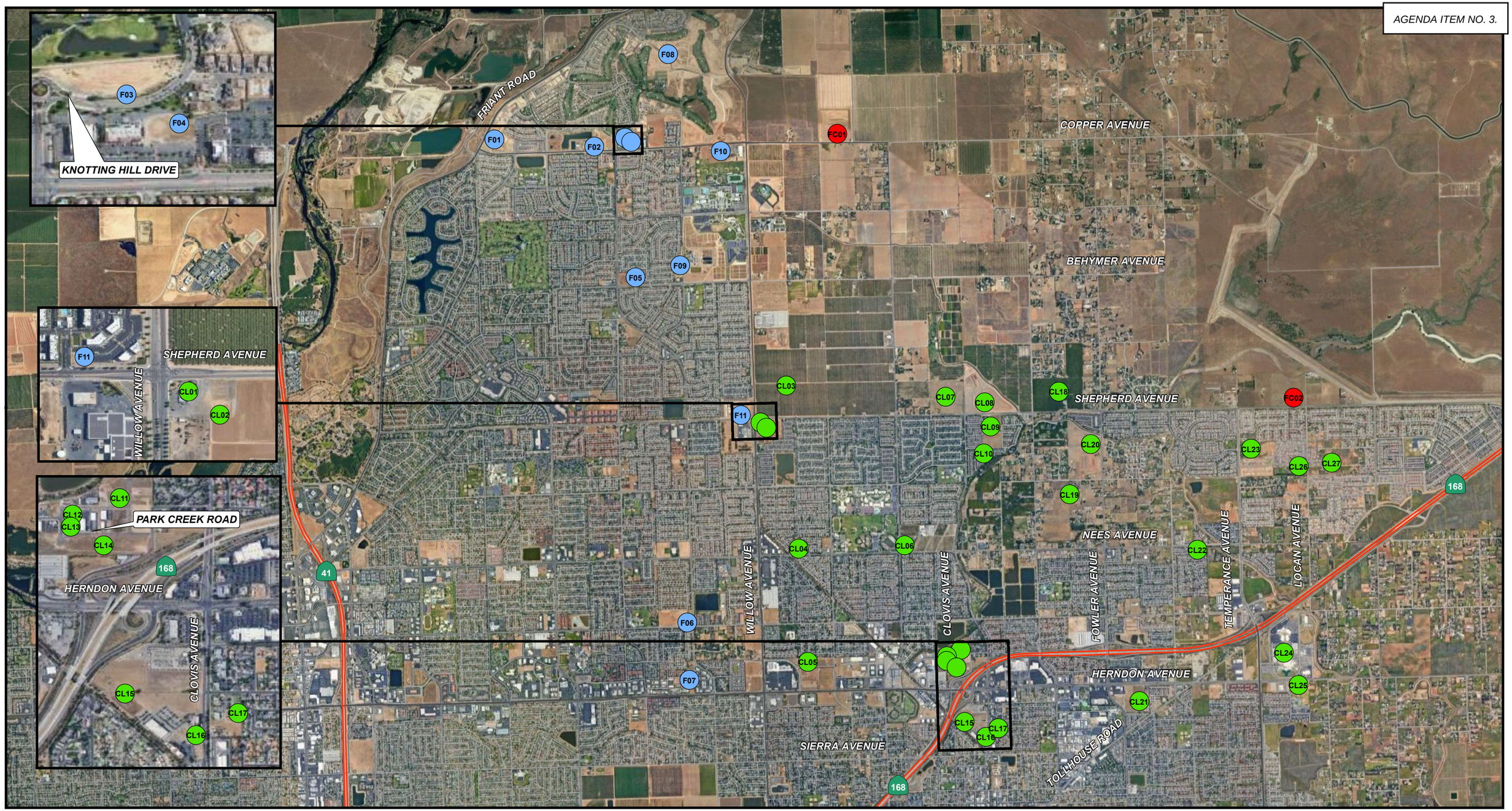
LSA

FIGURE 5-1

XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis
Existing Peak Hour Traffic Volumes

P:\CIT2201-TM 6343\PRODUCTS\Traffic\z45_Vol_Exist_NP.xlsx 2/22/2023



LSA

LEGEND

- City of Fresno Cumulative Projects
- County of Fresno Cumulative Projects
- City of Clovis Cumulative Projects

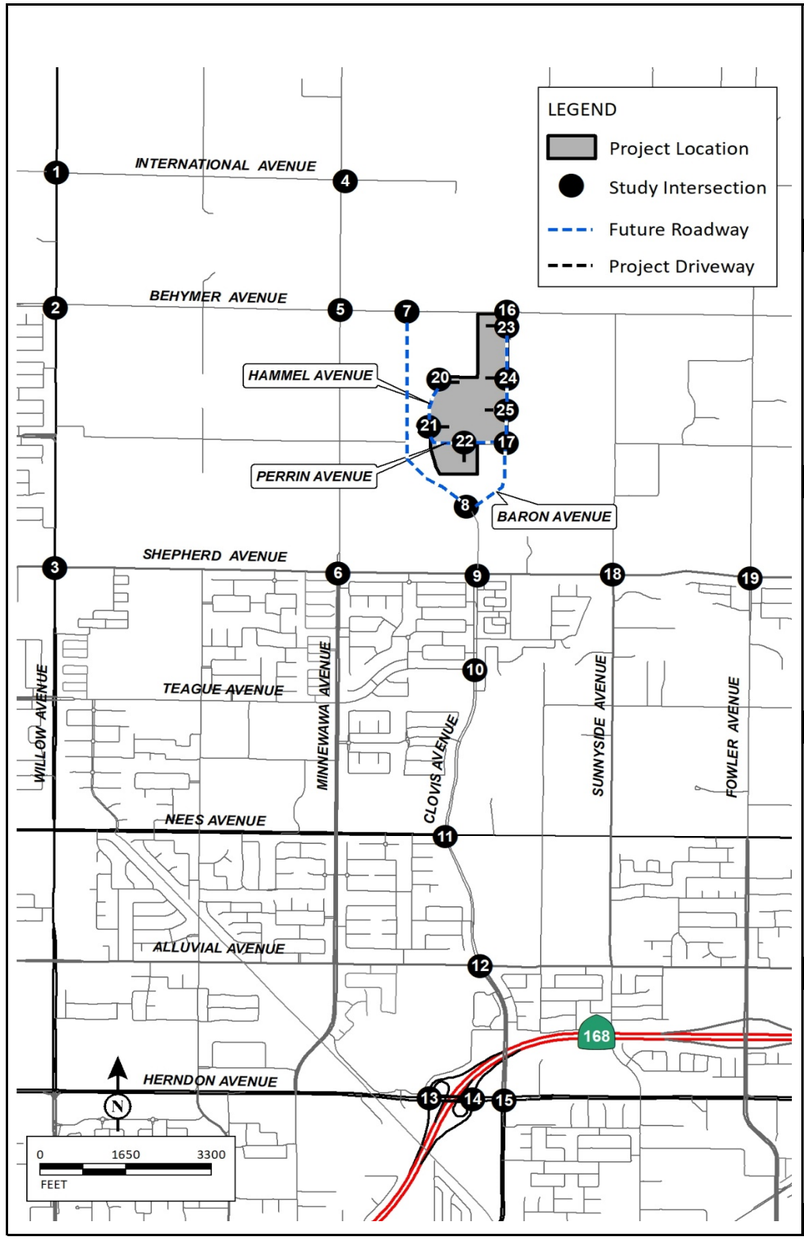
0 1800 3600
FEET

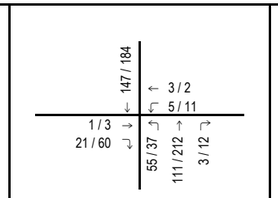
SOURCE: County of Fresno Streets Data 2021, Google Earth 2019

I:\CIT2201-RIV\Reports\figX_Cumulative.mxd (12/29/2022)

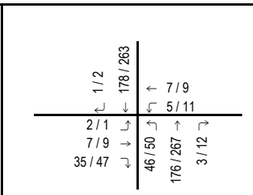
FIGURE 5-2

Tract Map 6343 Project
Transportation Impact Analysis
Cumulative Project Locations

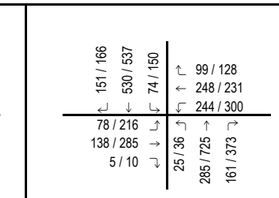




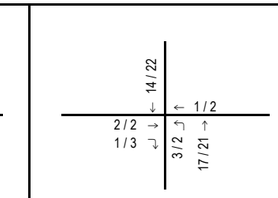
1 Willow Avenue/International Avenue



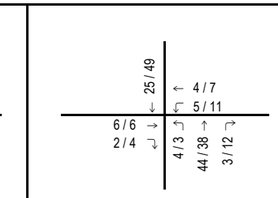
2 Willow Avenue/Behymer Avenue



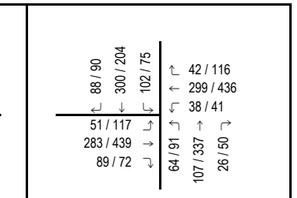
3 Willow Avenue/Shepherd Avenue



4 Minnewawa Avenue/International Avenue



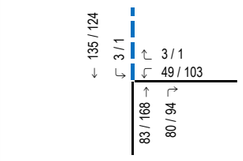
5 Minnewawa Avenue/Behymer Avenue



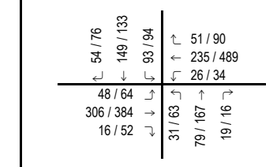
6 Minnewawa Avenue/Shepherd Avenue

Future Intersection

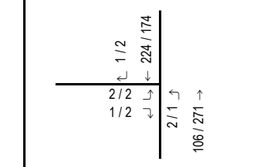
7 Clovis Avenue/Behymer Avenue



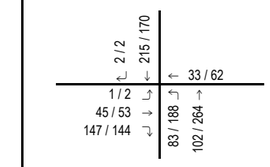
8 Clovis Avenue/Baron Avenue



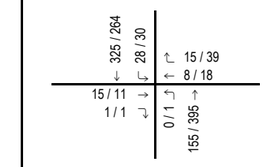
9 Clovis Avenue/Shepherd Avenue



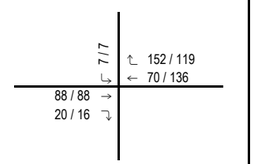
10 Clovis Avenue/Teague Avenue



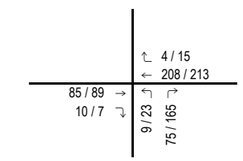
11 Clovis Avenue/Nees Avenue



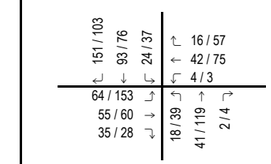
12 Clovis Avenue/Alluvial Avenue



13 State Route 168 Westbound Ramps/Herndon Avenue



14 State Route 168 Eastbound Ramps/Herndon Avenue



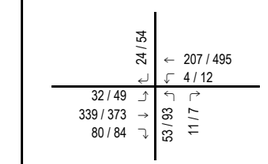
15 Clovis Avenue/Herndon Avenue

Future Intersection

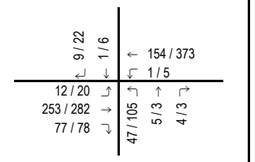
16 Baron Avenue/Behymer Avenue

Future Intersection

17 Baron Avenue/Perrin Avenue



18 Sunnyside Avenue/Shepherd Avenue



19 Fowler Avenue/Shepherd Avenue

Future Intersection

20 Hammel Avenue/Project Driveway 1

Future Intersection

21 Hammel Avenue/Project Driveway 2

Future Intersection

22 Project Driveway 3/Perrin Avenue

Future Intersection

23 Baron Avenue/Project Driveway 4

Future Intersection

24 Baron Avenue/Project Driveway 5

Future Intersection

25 Baron Avenue/Project Driveway 6

LSA

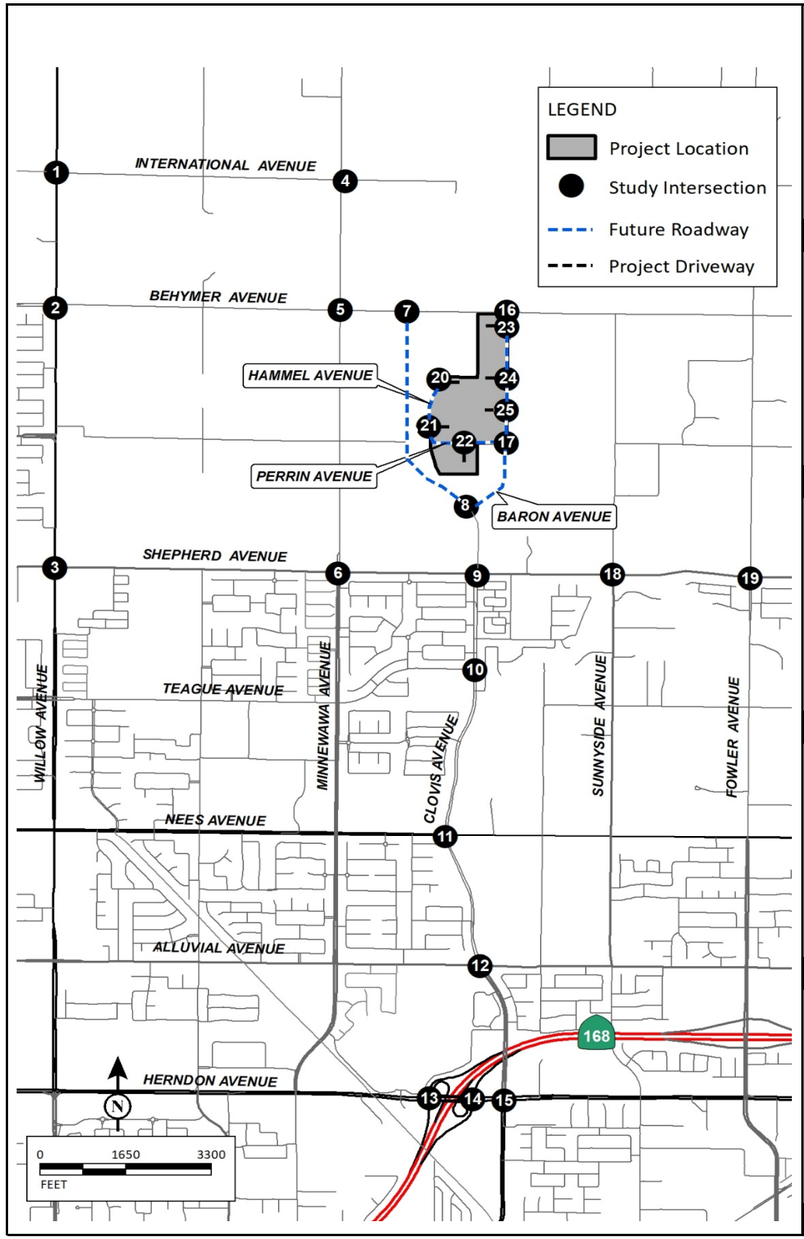
FIGURE 5-3

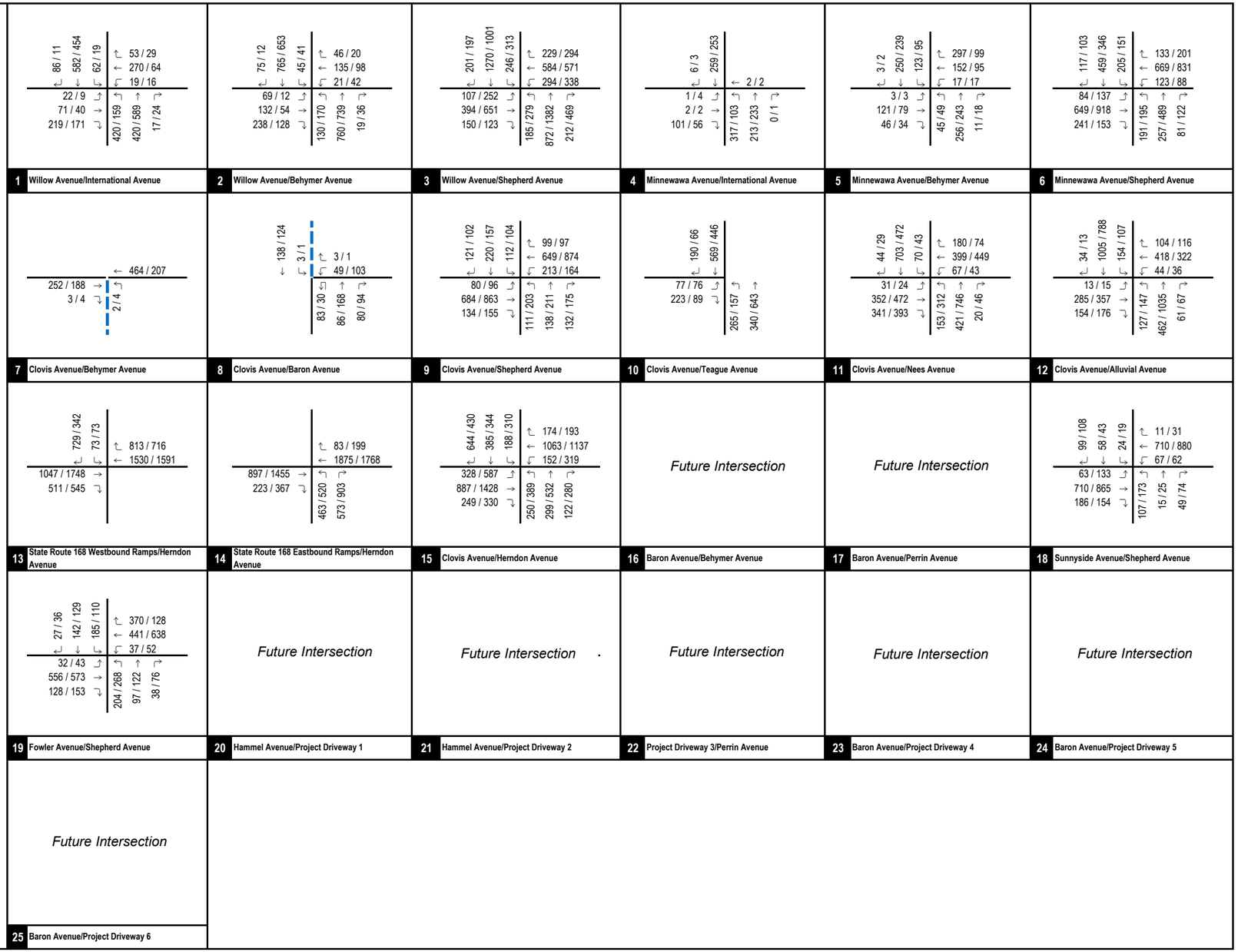
XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis

Cumulative Projects Trip Assignment

P:\CIT2201-TM 6343\PRODUCTS\Traffic\z45_Cumulative Projects Assgn.xlsx 2/21/2023





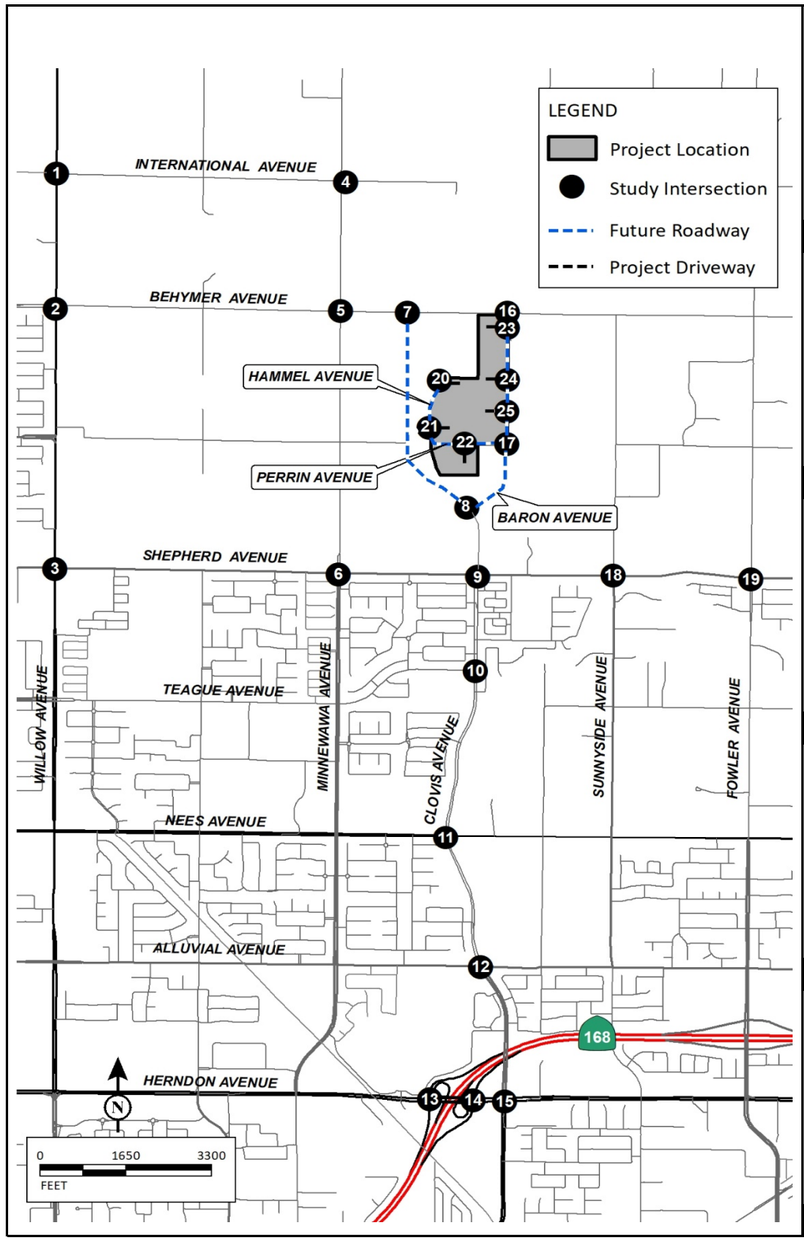
LSA

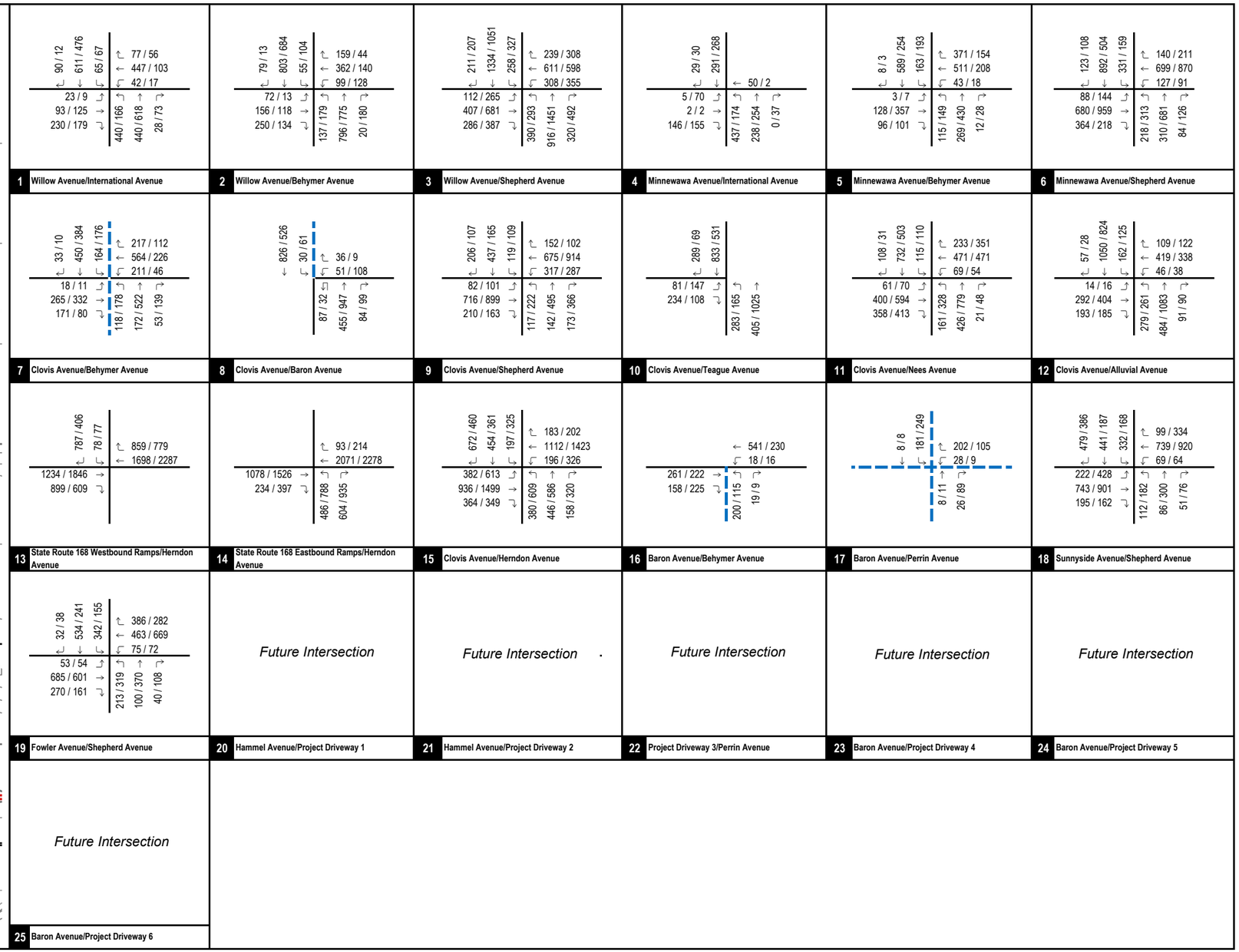
FIGURE 5-4

XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis
Near-Term (2026) without Project Peak Hour Traffic Volumes

P:\CIT2201-TM 6343\PRODUCTS\Traffic\March 2023\z45_Vol_2026 Near Term_NP.xlsx 3/15/2023





LSA

FIGURE 5-5

XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis

Cumulative (2046) without Project Peak Hour Traffic Volumes

P:\CIT2201-TM 6343\PRODUCTS\Traffic\March 2023\z45_Vol_2046 Cum_NP.xlsx 3/15/2023

LSA

Table 5-A - Existing Roadway Segment Peak Hour Traffic Volumes

Roadway	#	Segment	A.M. Peak Hour			P.M. Peak Hour		
			Existing (2022)	Project Trips	Existing (2022) Plus Project	Existing (2022)	Project Trips	Existing (2022) Plus Project
International Avenue	1	between Willow Avenue and Minnewawa Avenue	469	4	473	162	5	167
Behymer Avenue	2	between Willow Avenue and Minnewawa Avenue	364	20	384	236	27	263
	3	between Minnewawa Avenue and Clovis Avenue	699	33	732	372	45	417
	4	between Clovis Avenue and Baron Avenue	699	33	732	372	45	417
Shepherd Avenue	5	between Willow Avenue and Minnewawa Avenue	884	74	958	1,033	100	1,133
	6	between Minnewawa Avenue and Clovis Avenue	906	108	1,014	942	145	1,087
	7	between Clovis Avenue and Sunnyside Avenue	870	54	924	806	72	878
	8	between Sunnyside Avenue and Fowler Avenue	749	42	791	704	56	760
Herndon Avenue	9	between State Route 168 Eastbound Ramps and Clovis Avenue	2,914	108	3,022	3,756	145	3,901
Willow Avenue	10	between International Avenue and Behymer Avenue	1,273	36	1,309	835	49	884
	11	between Behymer Avenue and Shepherd Avenue	1,632	20	1,652	1,452	27	1,479
Minnewawa Avenue	12	between International Avenue and Behymer Avenue	863	12	875	602	16	618
	13	between Behymer Avenue and Shepherd Avenue	542	0	542	483	0	483
Baron Avenue	14	between Behymer Avenue and Perrin Avenue	2	247	249	0	333	333
	15	between Perrin Avenue and Clovis Avenue	0	375	375	0	505	505
Clovis Avenue	16	between Baron Avenue and Shepherd Avenue	276	377	653	141	505	646
	17	between Shepherd Avenue and Teague Avenue	503	215	718	457	289	746
	18	between Teague Avenue and Nees Avenue	1,014	199	1,213	822	267	1,089
	19	between Nees Avenue and Alluvial Avenue	1,007	161	1,168	1,087	217	1,304
	20	between Alluvial Avenue and Herndon Avenue	1,476	153	1,629	1,726	206	1,932

Table 5-B - Cumulative Projects Trip Generation

Project No.	Land Use/Builder/Applicant/Project Name		Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
CL01 .	**Enzon's Table Commercial**									
	1958 N Willow Avenue									
	Strip Retail Plaza (<40k)[1]	24.287	TSF							
	Trips/Unit			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			34	23	57	80	80	160	1,322
	Pass-by Trips[2]			0	0	0	(32)	(32)	(64)	(529)
	Net New Trips			34	23	57	48	48	96	793
CL02 .	**Enzon's Table Residential**									
	1959 N Willow Avenue									
	Single-Family Detached Housing[3]	258	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			46	134	180	152	90	242	2,433
CL03 .	**Heritage Grove[4]**									
	Planning Areas 1-5									
	Single-Family Detached Housing[3]	646	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			116	336	452	381	226	607	6,092
	Single-Family Attached Housing[5]	56	DU							
	Trips/Unit			0.15	0.33	0.48	0.32	0.25	0.57	7.20
	Trip Generation			8	18	26	18	14	32	403
	Multifamily Housing (Low-Rise) Not Close to Rail Transit[6]	2,108	DU							
	Trips/Unit			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			211	632	843	675	401	1,076	14,208
	Shopping Center (>150)[7]	918.724	TSF							
	Trips/Unit			0.52	0.32	0.84	1.63	1.77	3.40	37.01
	Trip Generation			478	294	772	1,498	1,626	3,124	34,002
	Pass-by Trips[8]			0	0	0	(434)	(472)	(906)	(9,861)
	Net New Trips			478	294	772	1,064	1,154	2,218	24,141
	Planning Areas 6,7,8,10,11,12									
	Single-Family Detached Housing[3]	1,923	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			346	1,000	1,346	1,135	673	1,808	18,134
	Single-Family Attached Housing[5]	339	DU							
	Trips/Unit			0.15	0.33	0.48	0.32	0.25	0.57	7.20
	Trip Generation			51	112	163	108	85	193	2,441
	Planning Area 9									
	Elementary School[9]	750	STU							
	Trips/Unit			0.40	0.34	0.74	0.07	0.09	0.16	2.27
	Trip Generation			300	255	555	53	68	121	1,703
	Planning Areas 13-17									
	Single-Family Detached Housing[3]	545	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			98	283	381	322	191	513	5,139
	Shopping Plaza (40-150k) -Supermarket -Yes [10]	77.467	TSF							
	Trips/Unit			2.19	1.34	3.53	4.33	4.70	9.03	94.49
	Trip Generation			170	104	274	335	364	699	7,320
	Pass-by Trips[11]			0	0	0	(134)	(146)	(280)	(2,928)
	Net New Trips			170	104	274	201	218	419	4,392
			Total Gross Trip Generation	1,778	3,034	4,812	4,525	3,648	8,173	89,442
			Total Pass-By Trips	0	0	0	(568)	(617)	(1,186)	(12,789)
			Total Net Trip Generation	1,778	3,034	4,812	3,957	3,031	6,987	76,653

Table 5-B - Cumulative Projects Trip Generation

Project No.	Land Use/Builder/Applicant/Project Name	Units		A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
CL04 .	**TM 6348**									
	Northeast of Timmy Avenue and Ness Avenue									
	Single-Family Detached Housing[3]	10	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			2	5	7	6	4	10	94
CL05 .	**TM 6262**[12]									
	Trip Generation	185	DU	20	66	86	66	38	104	1,356
CL06 .	**The Well Church**[13]									
	Trip Generation	80.000	TSF	16	11	27	18	22	40	556
CL07 .	**TM 6050**[14]									
	Trip Generation	255	DU	47	142	189	159	93	252	2,407
CL08 .	**Lennar - Tract no. 6200 -Phase 1**[15]									
	Trip Generation	176	DU	32	98	130	110	64	174	1,661
CL09 .	**Tract 6263**[16]									
	Trip Generation	137	DU	25	76	101	86	50	136	1,293
CL10 .	**TM 6268**									
	Southwest of Clovis Avenue and Riordan Avenue									
	Single-Family Detached Housing[3]	10	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			2	5	7	6	4	10	94
CL11 .	**SPR 2021-004**									
	622 N Pollasky Avenue									
	Warehousing[17,18]	15.100	TSF							
	Auto Trips			1	1	2	1	1	2	18
	Total Truck Trips			0	0	0	0	1	1	8
	Total Trip Generation			1	1	2	1	2	3	26
CL12 .	**SPR 2020-002**									
	466 Spruce Avenue									
	Warehousing[17,18]	11.470	TSF							
	Auto Trips			1	0	1	0	1	1	14
	Total Truck Trips			0	0	0	0	0	0	6
	Total Trip Generation			1	0	1	0	1	1	20
CL13 .	**SPR 2020-007**									
	541 DeWitt Avenue									
	Warehousing[17,18]	7.800	TSF							
	Auto Trips			1	0	1	0	1	1	9
	Total Truck Trips			0	0	0	0	0	0	4
	Total Trip Generation			1	0	1	0	1	1	13
CL14 .	**SPR 2021-014**									
	520 Park Creek									
	Warehousing[17,18]	9.897	TSF							
	Auto Trips			1	0	1	0	1	1	12
	Total Truck Trips			0	0	0	0	0	0	5
	Total Trip Generation			1	0	1	0	1	1	17
CL15 .	**Tru Hotel Site**									
	West of Clovis Avenue and Palo Alto Avenue									
	Hotel[19]	86	RM							
	Trips/Unit			0.26	0.20	0.46	0.30	0.29	0.59	7.99
	Trip Generation			22	17	39	26	25	51	687
CL16 .	**SPR 2021-005**									
	100 N Clovis Avenue									
	Medical-Dental Office Building - Stand-Alone[20]	4.406	TSF							
	Trips/Unit			2.45	0.65	3.10	1.18	2.75	3.93	36.00
	Trip Generation			11	3	14	5	12	17	159

Table 5-B - Cumulative Projects Trip Generation

Project No.	Land Use/Builder/Applicant/Project Name		Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
CL17 .	**SPR 2005-037A**									
	153 N Clovis Avenue									
	General Office Building[21]	3.298	TSF							
	Trips/Unit			1.34	0.18	1.52	0.24	1.20	1.44	10.84
	Trip Generation			4	1	5	1	4	5	36
CL18 .	**North Shepherd**[22]									
	Trip Generation	605	DU	109	315	424	357	212	569	5,705
CL19 .	**TM 6284**[23]									
	Trip Generation	74	DU	14	42	56	47	27	74	700
CL20 .	**Tract 6154**[24]									
	Trip Generation	95	DU	18	54	72	60	35	95	906
CL21 .	**TM 5807**									
	Southwest of Herndon Avenue and Armstrong Avenue									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit[6]	252	DU							
	Trips/Unit			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			25	76	101	81	48	129	1,698
CL22 .	**TM 6367**									
	West of Temperance Avenue and Ness Avenue									
	Single-Family Detached Housing[3]	8	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			1	4	5	5	3	8	75
CL23 .	**TM6309**									
	East of Temperance Avenue and South of Shepherd Avenue									
	Single-Family Detached Housing[3]	101	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			18	53	71	60	35	95	952
CL24 .	**SPR 90-088A12**[25]									
	Trip Generation	150	Occupied Beds Hotel	1,153	469	1,622	978	1,674	2,652	30,008
		220.000	TSF Retail							
		468.844	TSF Hospital							
		354.392	TSF MOB							
		100.00	Occupied Beds Assisted Living							
CL25 .	**SPR 2018-020**									
	West of Temperance Avenue and Herndon Avenue									
	Assisted Living[26]	150	Beds							
	Trips/Unit			0.11	0.07	0.18	0.09	0.15	0.24	2.60
	Trip Generation			17	11	28	14	23	37	390
CL26 .	**Tract 6339**[27]									
	Trip Generation			7	20	27	23	14	37	349
		37	DU							
CL27 .	**TM 6239**[27]									
	Trip Generation	162	DU	30	90	120	101	59	160	1,529
FC01 .	**CUP 3588**									
	Northwest of Cooper Avenue and Auberry Road									
	Campground/Recreational Vehicle Park[28]	38.030	AC							
	Trips/Unit			0.20	0.28	0.48	0.68	0.30	0.98	7.30
	Trip Generation			8	11	19	26	11	37	278
FC02 .	**CUP 3526**									
	Northwest of Cooper Avenue and Lucan Avenue									
	Campground/Recreational Vehicle Park[28]	38.910	AC							
	Trips/Unit			0.20	0.28	0.48	0.68	0.30	0.98	7.30
	Trip Generation			8	11	19	26	12	38	284

Table 5-B - Cumulative Projects Trip Generation

Project No.	Land Use/Builder/Applicant/Project Name			Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
F01 .	**Copper River Apartments**										
	1000 E Copper Avenue										
	Multifamily Housing (Low-Rise) Not Close to Rail Transit[6]	501	DU								
	Trips/Unit				0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation				50	150	200	160	95	255	3,377
F02 .	**P21-05249**										
	1880 E Copper Avenue										
	Convenience Store/Gas Station - GFA (2-4k)[29]	4	VFP								
	Trips/Unit				8.03	8.03	16.06	9.21	9.21	18.42	265.12
	Trip Generation				32	32	64	37	37	74	1,060
	Pass-by Trips[30]				(19)	(19)	(38)	(21)	(21)	(41)	(615)
	Net New Trips				13	13	26	16	16	33	445
	Strip Retail Plaza (<40k)[1]	23.400	TSF								
	Trips/Unit				1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation				33	22	55	77	77	154	1,274
	Pass-by Trips[2]				0	0	0	(31)	(31)	(62)	(510)
	Net New Trips				33	22	55	46	46	92	764
				Total Gross Trip Generation	65	54	119	114	114	228	2,334
				Total Pass-By Trips	(19)	(19)	(38)	(52)	(52)	(103)	(1,124)
				Total Net Trip Generation	46	35	81	62	62	125	1,210
F03 .	**P20-02040**										
	11075 N Knotting Hill Drive										
	General Office Building[21]	28.000	TSF								
	Trips/Unit				1.34	0.18	1.52	0.24	1.20	1.44	10.84
	Trip Generation				38	5	43	7	34	41	304
F04 .	**P21-05913**										
	2066 E Copper Avenue										
	Medical-Dental Office Building - Stand-Alone[20]	43.560	TSF								
	Trips/Unit				2.45	0.65	3.10	1.18	2.75	3.93	36.00
	Trip Generation				107	28	135	51	120	171	1,568
F05 .	**P21-01385- Maple & Behymer Commercial and Self-**										
	10061 N Maple Avenue										
	Convenience Store/Gas Station - GFA (2-4k)[29]	16	VFP								
	Trips/Unit				8.03	8.03	16.06	9.21	9.21	18.42	265.12
	Trip Generation				128	128	256	147	147	294	4,242
	Pass-by Trips[30]				(97)	(97)	(195)	(110)	(110)	(221)	(3,203)
	Net New Trips				31	31	61	37	37	74	1,039
	Strip Retail Plaza (<40k)[1]	6.900	TSF								
	Trips/Unit				1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation				10	6	16	23	23	46	376
	Pass-by Trips[2]				0	0	0	(9)	(9)	(18)	(150)
	Net New Trips				10	6	16	14	14	28	226
	Fast-Food Restaurant without Drive-Though Window[31]	1.892	TSF								
	Trips/Unit				25.04	18.14	43.18	16.61	16.60	33.21	450.49
	Trip Generation				47	34	81	31	31	62	852
	Pass-by Trips[32]				(24)	(17)	(41)	(17)	(17)	(34)	(447)
	Net New Trips				24	17	41	14	14	28	405
	Fast-Food Restaurant with Drive-Through Window[33]	2.695	TSF								
	Trips/Unit				22.75	21.86	44.61	17.18	15.85	33.03	467.48
	Trip Generation				61	59	120	46	43	89	1,260
	Pass-by Trips[34]				(31)	(30)	(60)	(25)	(24)	(49)	(662)
	Net New Trips				31	30	60	21	19	40	599
	Mini Warehouse[35]	164.611	TSF								
	Trips/Unit				0.05	0.04	0.09	0.07	0.08	0.15	1.45
	Trip Generation				8	7	15	12	13	25	239

LSA

Table 5-B - Cumulative Projects Trip Generation

Project No.	Land Use/Builder/Applicant/Project Name		Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
	Automated Car Wash[36]	2.420	TSF							
	Trips/Unit			5.66	3.32	8.98	7.10	7.10	14.20	163.09
	Trip Generation			14	8	22	17	17	34	395
			Total Gross Trip Generation	268	242	510	276	274	550	7,364
			Total Pass-By Trips	(151)	(144)	(295)	(162)	(160)	(322)	(4,462)
			Total Net Trip Generation	117	98	215	114	114	228	2,902
F06 .	**P21-02506**									
	7521 N Chesnut Avenue									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit[6]	105	DU							
	Trips/Unit			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			11	32	43	34	20	54	708
F07 .	**P20-03299**									
	2471 E Fir Avenue									
	General Office Building[21]	18.175	TSF							
	Trips/Unit			1.34	0.18	1.52	0.24	1.20	1.44	10.84
	Trip Generation			24	3	27	4	22	26	197
F08 .	**P21-01875**									
	11479 N Willow Avenue									
	Single-Family Detached Housing[3]	518	DU							
	Trips/Unit			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			93	269	362	306	181	487	4,885
F09 .	**P20-00213**									
	10047 N Chestnut Avenue									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit[6]	106	DU							
	Trips/Unit			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			11	32	43	34	20	54	714
F10 .	**T-6249**[37]									
	Trip Generation	274	DU	62	158	220	205	138	343	3,537
		28.000	TSF Retail							
F11 .	**P22-00358**									
	2884 East Shepherd Avenue									
	Fast-Food Restaurant without Drive-Though Window[31]	1.070	TSF							
	Trips/Unit			25.04	18.14	43.18	16.61	16.60	33.21	450.49
	Trip Generation			27	19	46	18	18	36	482
	Pass-by Trips[32]			(14)	(10)	(23)	(10)	(10)	(20)	(253)
	Net New Trips			14	10	23	8	8	16	229
			Gross Trip Generation	**4,207**	**5,764**	**9,971**	**8,228**	**7,328**	**15,556**	**169,960**
			Pass-By Trips Reduction	**(184)**	**(172)**	**(356)**	**(824)**	**(871)**	**(1,694)**	**(19,157)**
			Total Net Trip Generation	**4,023**	**5,592**	**9,615**	**7,404**	**6,457**	**13,862**	**150,803**

Notes:

DU = Dwelling Units; TSF = Thousand Square Feet; RM = Rooms; VFP = Vehicle Fueling Positions; MOB=Medical Office Building; STU = Students; AC =Acre.

[1] Rates from Institute of Transportation Engineers (ITE) Trip Generation Manual , (11th Edition) Land Use 822 - "Strip Retail Plaza (<40k)" , Setting/Location - 'General Urban/Suburban'.

[2] Since pass-by rates from the ITE *Trip Generation Manual* (11th Edition) for Land Use 822 - 'Strip Retail Plaza (<40k)' do not exist. Pass-by rates were taken from Land Use 821 - 'Shopping Plaza (40-150k).' A pass-by rate of 40% was used for the p.m. peak hour. Since daily pass -by rates are not available for this land use in the ITE *Trip Generation Manual* , the p.m. pass-by rate was used as the daily pass-by rate.

[3] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 210 - "Single-Family Detached Housing " , Setting/Location - 'General Urban/Suburban'.

[4] Based on the information obtained from the City, only Phase 1 of the Heritage Grove Specific Plan (between Shepherd to Perrin) is estimated to be completed by 2028. Therefore, trip generation for only Phase 1 of the Heritage Grove have been considered. Trip generation rates from ITE *Trip Generation Manual* , (11th Edition)for various land uses have been used to estimate the trip generation for this project. Trip distribution for this project heve been developed using the Fresno COG ABM select zone model run for these areas.

[5] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 215 - "Single-Family Attached Housing " , Setting/Location - 'General Urban/Suburban'.

[6] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 220 - "Multifamily Housing (Low Rise) Not Close to Rail Transit " , Setting/Location - 'General Urban/Suburban'.

[7] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 820 - "Shopping Center (>150k)" , Setting/Location - 'General Urban/Suburban'.

[8] Pass-by rates from the ITE *Trip Generation Manual* (11th Edition) for Land Use 820 - 'Shopping Center (>150k).' A pass-by rate of 29% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE *Trip Generation Manual* , the p.m. pass-by rate was used as the daily pass-by rate.

[9] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 520 - "Elementary School " , Setting/Location - 'General Urban/Suburban'.

[10] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 821 - "Shopping Plaza (40-150k)- Supermarket - Yes " , Setting/Location - 'General Urban/Suburban'.

[11] Pass-by rates from the ITE *Trip Generation Manual* (11th Edition) for Land Use 821 - 'Shopping Plaza (40-150k)- Supermarket - Yes.' A pass-by rate of 40% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE *Trip Generation Manual* , the p.m. pass-by rate was used as the daily pass-by rate.

[12] Trip generation taken from "Proposed Multifamily Residential Development Tentative Tract No. 6262" traffic study by Peters Engineering Group (May 2019).

[13] Trip generation taken from "Proposed Church" traffic study by Peters Engineering Group (March 2021).

[14] Trip generation taken from "Tentative Tract 6050 (Single-Family Housing" traffic study by JLB Traffic Engineering, Inc. (April 2020).

[15] Trip generation taken from "Shepherd Avenue" traffic study by JLB Traffic Engineering, Inc. (June 2018).

[16] Trip generation taken from "TT 6263" traffic study by JLB Traffic Engineering, Inc. (August 2019).

[17] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 150 - "Warehousing" , Setting/Location - 'General Urban/Suburban'.

[18] The truck mix percentages were obtained from South Coast Air Quality Management District (SCAQMD) recommendations for warehousing projects. As such, The truck mix was considered as 6.8% 2-axle trucks, 5.5% 3-axle trucks, and 18.7% 4 or more axle trucks. All truck trips were converted to passenger PCEs using a 1.5 PCE factor for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4 or more axle trucks.

[19] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 310 - "Hotel " , Setting/Location - 'General Urban/Suburban'.

[20] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 720 - "Medical-Dental Office Building - Stand Alone" , Setting/Location - 'General Urban/Suburban'.

[21] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 710 - "General Office Building" , Setting/Location - 'General Urban/Suburban'.

[22] Trip generation taken from "North Shepherd" scoping agreement by LSA (July 2022).

[23] Trip generation taken from "Proposed McKenney Assemblage - Tract 6284" traffic study by Peters Engineering Group (March 2020).

[24] Trip generation taken from "Proposed Dry Creek Preserve Master Plan" traffic study by Peters Engineering Group (February 2018).

[25] Trip generation taken from "Master Plan Expansion of the Clovis Community Medical Center" traffic study by JLB Traffic Engineering, Inc. (November 2017).

[26] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 254 - "Assisted Living " , Setting/Location - 'General Urban/Suburban'.

[27] Trip generation taken from "Locan 35" traffic study by JLB Traffic Engineering, Inc. (October 2019).

[28] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 416 - "Campground/Recreational Vehicle Park " , Setting/Location - 'General Urban/Suburban'.

[29] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 945 - "Convenience Store/Gas Station - GFA (2-4K)" , Setting/Location - 'General Urban/Suburban'.

[30] Pass-by rates from the ITE *Trip Generation Manual* (11th Edition) for Land Use 945 - 'Convenience Store/Gas Station - GFA (2-4K).' A pass-by rate of 60% was used for the a.m. peak hour and a pass-by rate of 56% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE *Trip Generation Manual* , the average of a.m and p.m. pass-by rate was used as the daily pass-by rate.

[31] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 933 - "Fast-Food Restaurant without Drive-Through Window" , Setting/Location - 'General Urban/Suburban'.

[32] Since pass-by rates from the *ITE Trip Generation Manual* (11th Edition) for Land Use 933 - 'Fast-Food Restaurant without Drive-Through Window' do not exist. Pass-by rates were taken from Land Use 934 - 'Fast-Food Restaurant with Drive-Through Window.' A pass-by rate of 50% was used for the a.m. peak hour and a pass-by rate of 55% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE *Trip Generation Manual* , the average of a.m and p.m. pass-by rate was used as the daily pass-by rate.

[33] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 934 - "Fast-Food Restaurant with Drive-Through Window" , Setting/Location - 'General Urban/Suburban'.

[34] Pass-by rates from the ITE *Trip Generation Manual* (11th Edition) for Land Use 934 - 'Fast-Food Restaurant with Drive-Through Window.' A pass-by rate of 50% was used for the a.m. peak hour and a pass-by rate of 55% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE *Trip Generation Manual* , the average of a.m and p.m. pass-by rate was used as the daily pass-by rate.

[35] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 151 - "Mini Warehouse" , Setting/Location - 'General Urban/Suburban'.

[36] Rates from ITE *Trip Generation Manual* , (11th Edition), Land Use 948 - "Automated Car Wash" , Setting/Location - 'General Urban/Suburban'.

[37] Trip generation taken from "Tract 6249" traffic study by KD Anderson & Associates, Inc. (June 2019).

Table 5-C - Near Term (2026) Roadway Segment Peak Hour Traffic Volumes

Roadway	#	Segment	A.M. Peak Hour						P.M. Peak Hour					
			Existing (2022)	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) NP	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
International Avenue	1	between Willow Avenue and Minnewawa Avenue	469	12	0	481	4	485	162	28	0	190	5	195
Behymer Avenue	2	between Willow Avenue and Minnewawa Avenue	364	22	4	390	20	410	236	41	6	283	27	310
	3	between Minnewawa Avenue and Clovis Avenue	699	18	4	721	33	754	372	36	6	414	45	459
	4	between Clovis Avenue and Baron Avenue	699	13	4	716	33	749	372	28	6	406	45	451
Shepherd Avenue	5	between Willow Avenue and Minnewawa Avenue	884	974	106	1,964	74	2,038	1,033	1,481	142	2,656	100	2,756
	6	between Minnewawa Avenue and Clovis Avenue	906	790	161	1,857	108	1,965	942	1,157	217	2,316	145	2,461
	7	between Clovis Avenue and Sunnyside Avenue	870	798	267	1,935	54	1,989	806	1,151	359	2,316	72	2,388
	8	between Sunnyside Avenue and Fowler Avenue	749	561	251	1,561	42	1,603	704	887	336	1,927	56	1,983
Herndon Avenue	9	between State Route 168 Eastbound Ramps and Clovis Avenue	2,914	372	112	3,398	108	3,506	3,756	482	129	4,367	145	4,512
Willow Avenue	10	between International Avenue and Behymer Avenue	1,273	357	47	1,677	36	1,713	835	533	63	1,431	49	1,480
	11	between Behymer Avenue and Shepherd Avenue	1,632	1,217	43	2,892	20	2,912	1,452	1,922	57	3,431	27	3,458
Minnewawa Avenue	12	between International Avenue and Behymer Avenue	863	69	0	932	12	944	602	87	0	689	16	705
	13	between Behymer Avenue and Shepherd Avenue	542	690	0	1,232	0	1,232	483	939	0	1,422	0	1,422
Baron Avenue	14	between Behymer Avenue and Perrin Avenue	2	11	0	13	247	260	0	17	0	17	333	350
	15	between Perrin Avenue and Clovis Avenue	0	135	0	135	375	510	0	199	0	199	505	704
Clovis Avenue	16	between Baron Avenue and Shepherd Avenue	276	474	0	750	377	1,127	141	624	0	765	505	1,270
	17	between Shepherd Avenue and Teague Avenue	503	333	105	941	215	1,156	457	465	142	1,064	289	1,353
	18	between Teague Avenue and Nees Avenue	1,014	333	97	1,444	199	1,643	822	448	131	1,401	267	1,668
	19	between Nees Avenue and Alluvial Avenue	1,007	547	129	1,683	161	1,844	1,087	766	152	2,005	217	2,222
	20	between Alluvial Avenue and Herndon Avenue	1,476	481	129	2,086	153	2,239	1,726	661	152	2,539	206	2,745

Table 5-D - Cumulative (2046) Roadway Segment Peak Hour Traffic Volumes

Roadway	#	Segment	A.M. Peak Hour					P.M. Peak Hour				
			Cumulative (2046) Without Project	Shepherd North Trips	Adjusted Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Adjusted Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
International Avenue	1	between Willow Avenue and Minnewawa Avenue	745	0	745	4	749	442	0	442	5	447
Behymer Avenue	2	between Willow Avenue and Minnewawa Avenue	929	4	933	20	953	920	6	926	27	953
	3	between Minnewawa Avenue and Clovis Avenue	1,248	4	1,252	33	1,285	977	6	983	45	1,028
	4	between Clovis Avenue and Baron Avenue	1,424	4	1,428	33	1,461	1,042	6	1,048	45	1,093
Shepherd Avenue	5	between Willow Avenue and Minnewawa Avenue	1,951	106	2,057	74	2,131	2,640	142	2,782	100	2,882
	6	between Minnewawa Avenue and Clovis Avenue	1,781	161	1,942	108	2,050	2,204	217	2,421	145	2,566
	7	between Clovis Avenue and Sunnyside Avenue	1,751	267	2,018	54	2,072	2,055	359	2,414	72	2,486
	8	between Sunnyside Avenue and Fowler Avenue	1,356	251	1,607	42	1,649	1,671	336	2,007	56	2,063
Herndon Avenue	9	between State Route 168 Eastbound Ramps and Clovis Avenue	3,645	112	3,757	108	3,865	4,647	129	4,776	145	4,921
Willow Avenue	10	between International Avenue and Behymer Avenue	1,712	47	1,759	36	1,795	1,436	63	1,499	49	1,548
	11	between Behymer Avenue and Shepherd Avenue	2,991	43	3,034	20	3,054	3,543	57	3,600	27	3,627
Minnewawa Avenue	12	between International Avenue and Behymer Avenue	1,399	0	1,399	12	1,411	1,145	0	1,145	16	1,161
	13	between Behymer Avenue and Shepherd Avenue	1,791	0	1,791	0	1,791	1,561	0	1,561	0	1,561
Baron Avenue	14	between Behymer Avenue and Perrin Avenue	621	0	621	247	868	554	0	554	333	887
	15	between Perrin Avenue and Clovis Avenue	803	0	803	375	1,178	787	0	787	505	1,292
Clovis Avenue	16	between Baron Avenue and Shepherd Avenue	1,118	0	1,118	377	1,495	955	0	955	505	1,460
	17	between Shepherd Avenue and Teague Avenue	1,219	105	1,324	215	1,539	1,445	142	1,587	289	1,876
	18	between Teague Avenue and Nees Avenue	1,568	97	1,665	199	1,864	1,636	131	1,767	267	2,034
	19	between Nees Avenue and Alluvial Avenue	1,632	129	1,761	161	1,922	1,946	152	2,098	217	2,315
	20	between Alluvial Avenue and Herndon Avenue	2,093	129	2,222	153	2,375	2,506	152	2,658	206	2,864

6.0 PROJECT TRAFFIC

6.1 PROJECT TRIP GENERATION

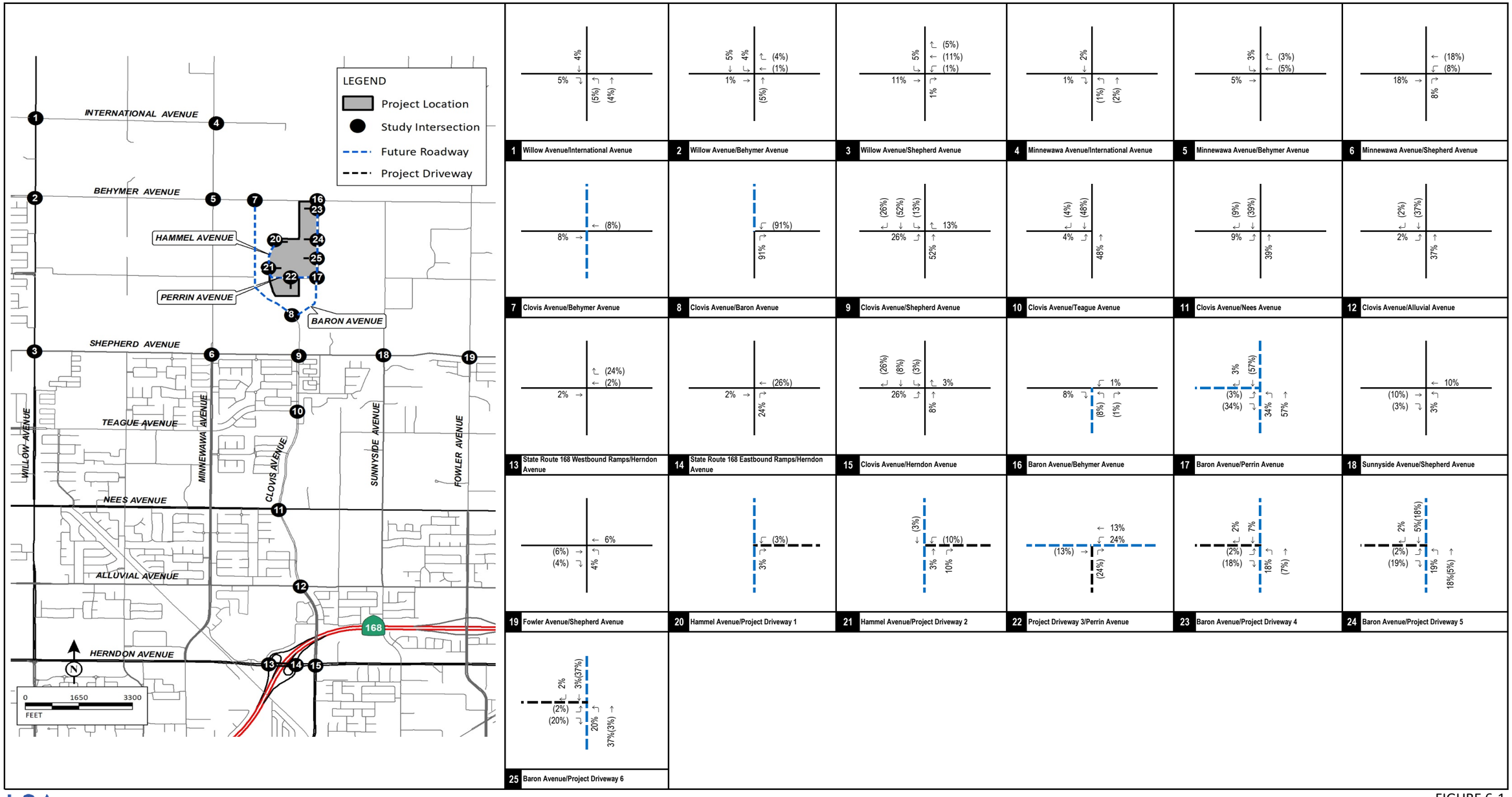
The trip generation for the proposed project was developed using rates from the ITE *Trip Generation Manual* (11th Edition) for Land Use 210 – "Single-Family Detached Housing." Table 6-A summarizes the project trip generation. As shown in Table 6-A, the project is anticipated to generate 413 trips in the a.m. peak hour, 555 trips in the p.m. peak hour, and 5,564 daily trips.

6.2 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The project trip distribution was developed using select zone model runs obtained from the Fresno COG ABM. Appendix A includes the select zone model plots for the proposed project. Figure 6-1 illustrates the project trip distribution. The project trip generation was applied to the corresponding trip distribution pattern to develop the project trip assignment. Figure 6-2 illustrates the project trip assignment.

6.3 LIST OF CHAPTER 6.0 FIGURES AND TABLES

- Figure 6-1: Project Trip Distribution
- Figure 6-2: Project Trip Assignment
- Table 6-A: Project Trip Generation

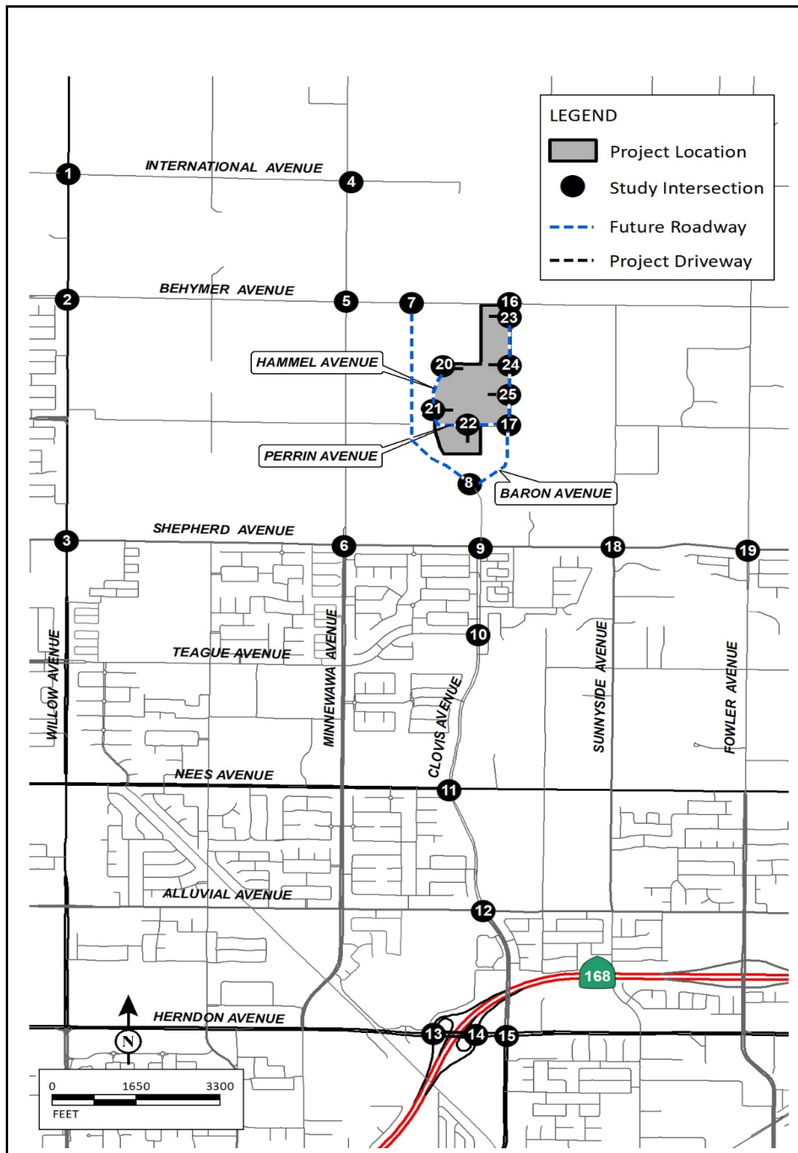


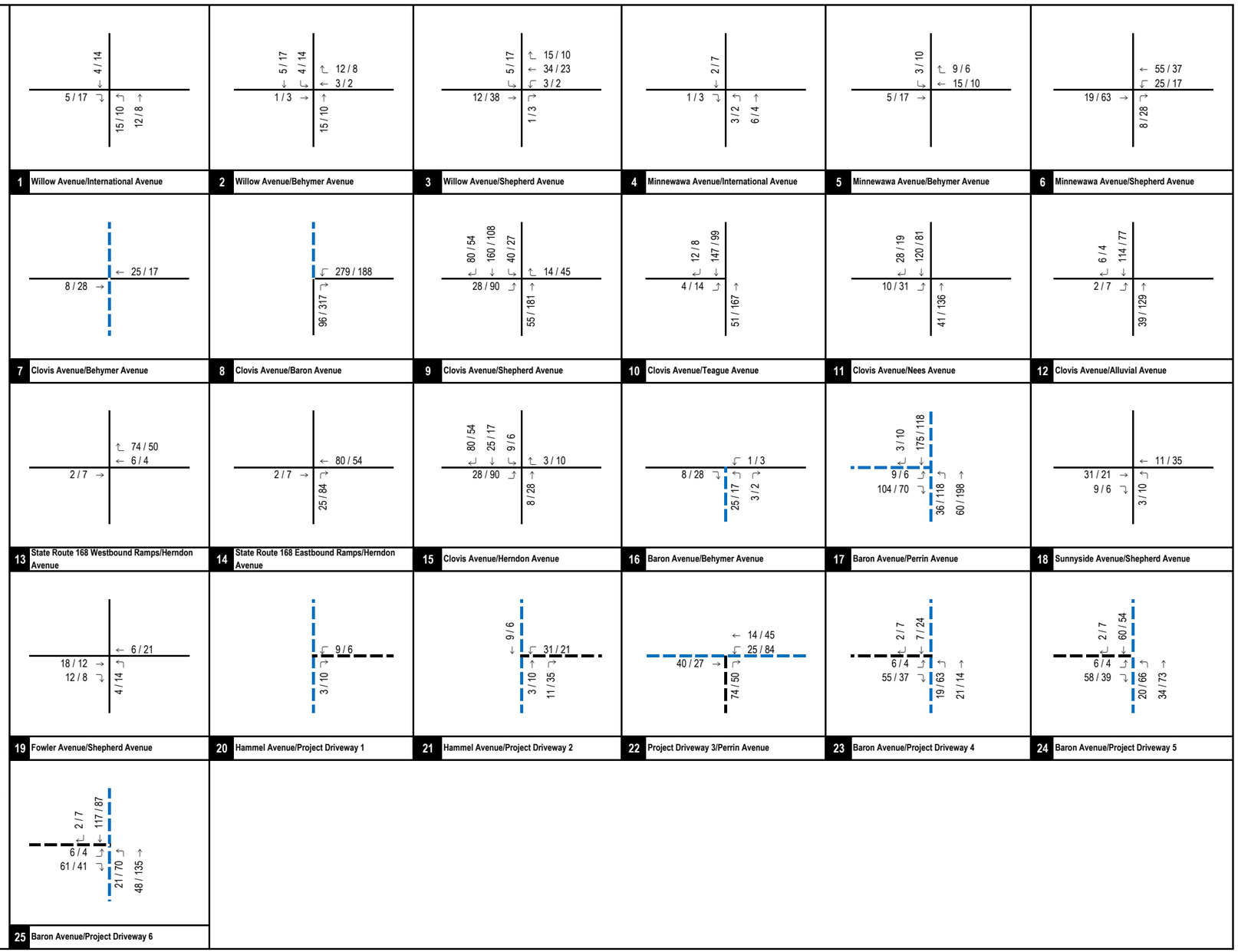
LSA

FIGURE 6-1

XX% (YY%)
Inbound (Outbound) Distribution
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis
Project Trip Distribution





LSA

FIGURE 6-2

XXX / YYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis
Project Trip Assignment

P:\CIT2201-TM 6343\PRODUCTS\Traffic\z45_Assign.xlsx 2/21/2023

Table 6-A - Project Trip Generation

Land Use	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
Single-Family Detached Housing	590 DU							
Trips/Unit[1]		0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation		106	307	413	348	207	555	5,564

Notes:

DU = Dwelling Units

[1] Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Land Use 210 - "Single-Family Detached Housing", Setting/Location - "General Urban/Suburban."

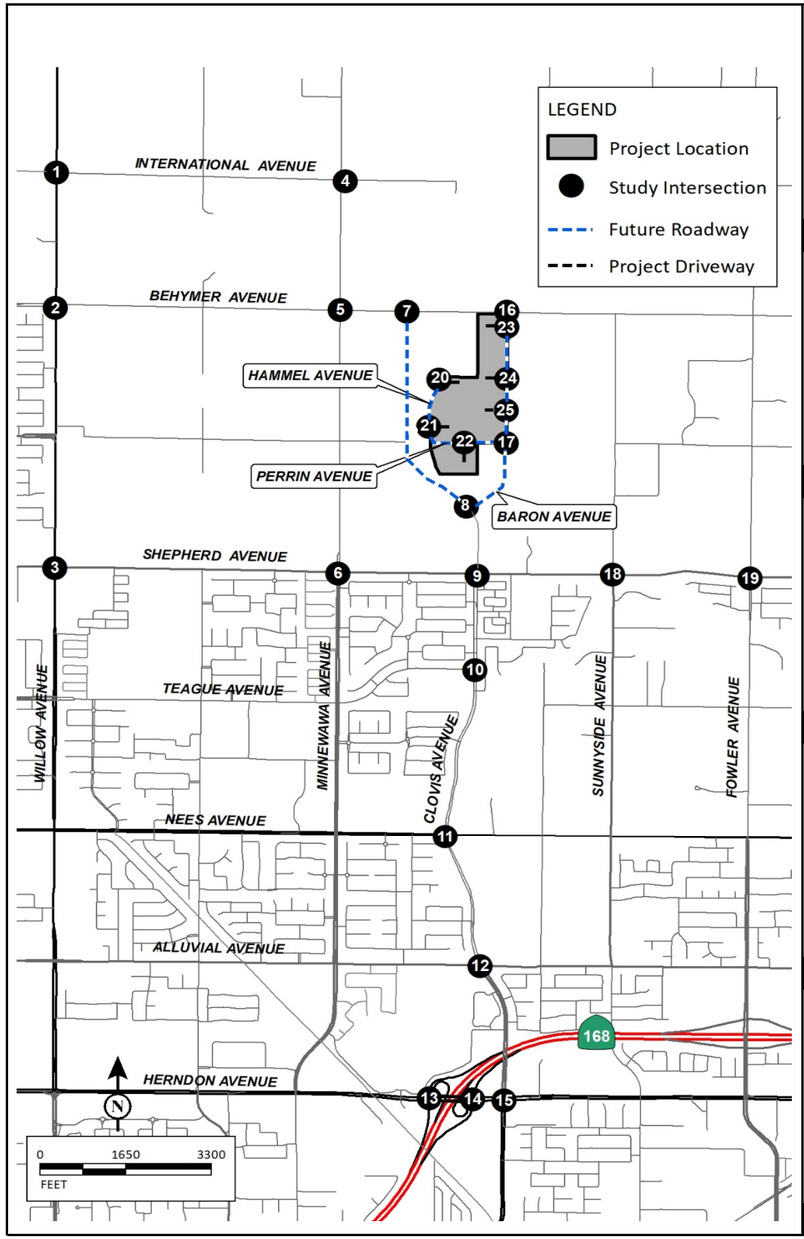
7.0 TRAFFIC VOLUMES FOR PLUS PROJECT SCENARIOS

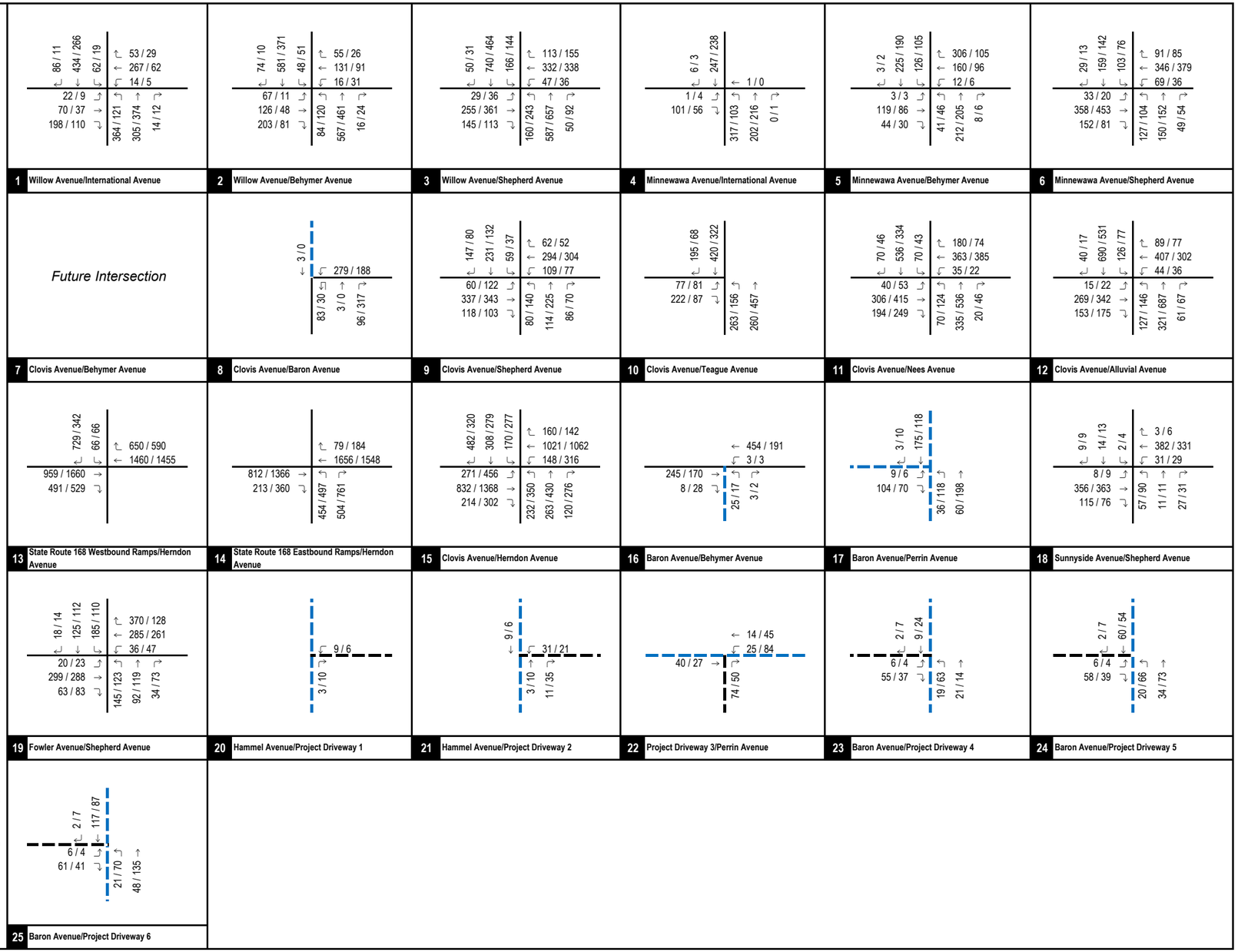
Existing, near-term, and cumulative plus project traffic volumes were developed by adding project traffic to the traffic for the corresponding without project scenarios. Figures 7-1, 7-2 and 7-3 illustrate "plus project" peak-hour traffic volumes at study intersections under existing, near-term, and cumulative conditions, respectively.

Detailed volume development worksheets are included in Appendix D.

7.1 LIST OF CHAPTER 7.0 FIGURES

- Figure 7-1: Existing Plus Project Peak-Hour Traffic Volumes
- Figure 7-2: Near-Term (2026) Plus Project Peak-Hour Traffic Volumes
- Figure 7-3: Cumulative (2046) Plus Project Peak-Hour Traffic Volumes





LSA

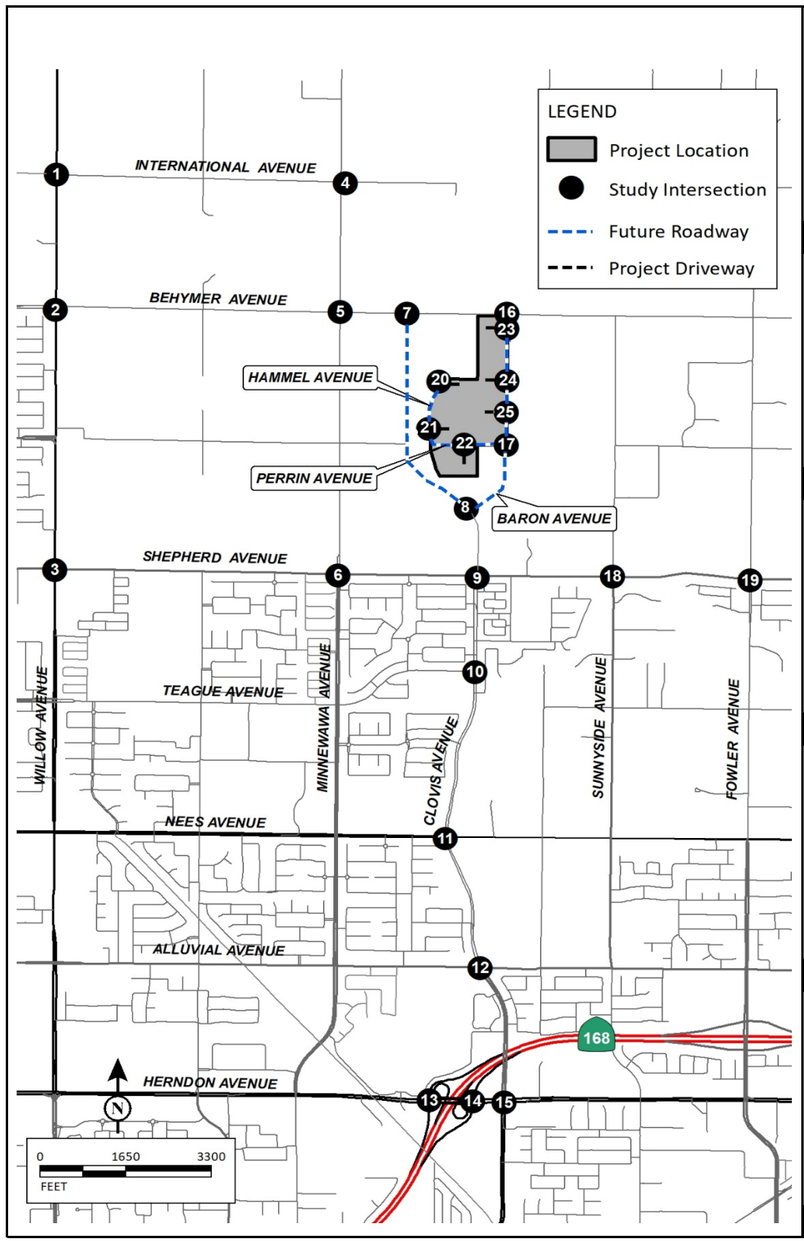
FIGURE 7-1

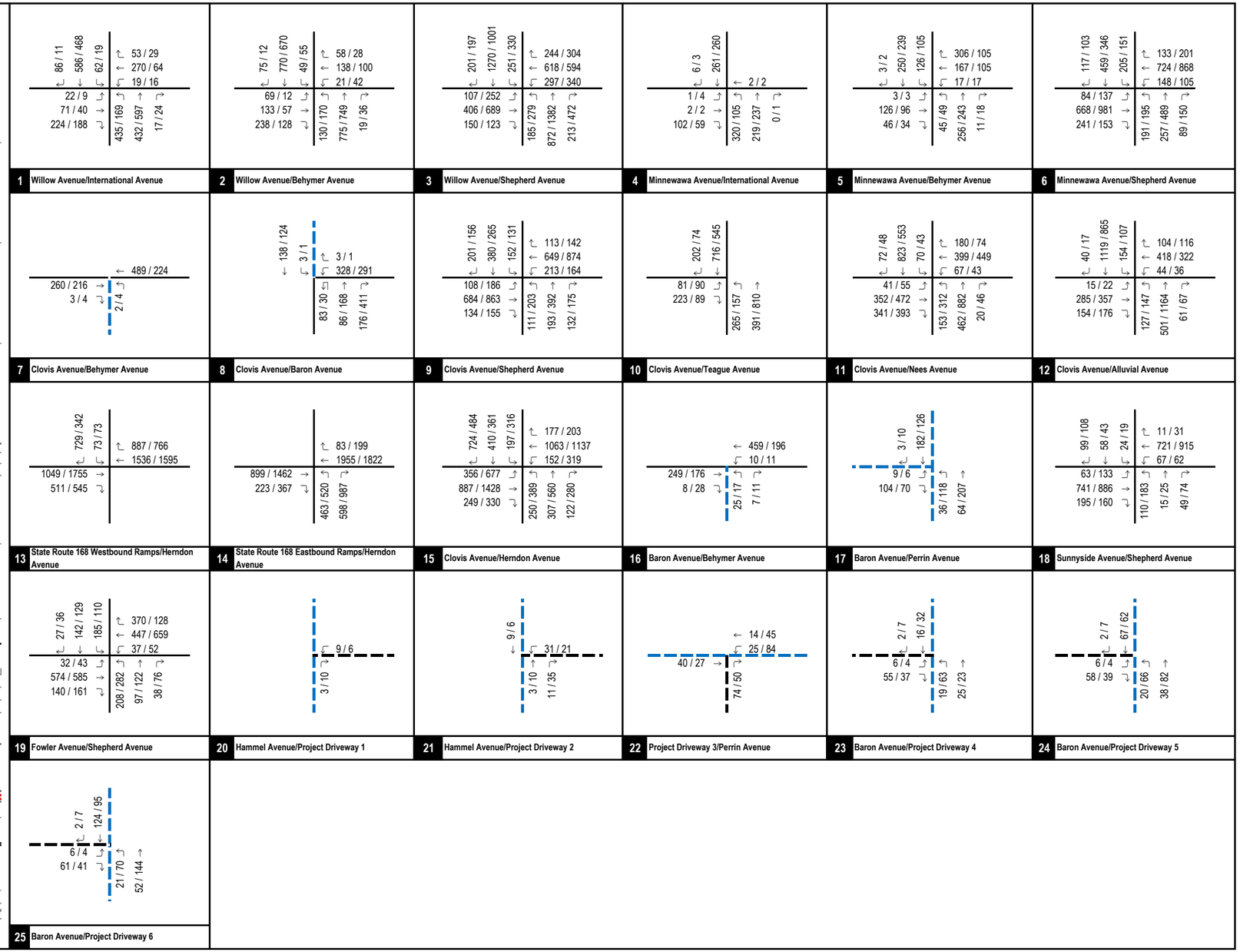
XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis

Existing Plus Project Peak Hour Traffic Volumes

P:\CIT2201-TM 6343\PRODUCTS\Traffic\z45_Vol_Exist_WP.xlsx 2/22/2023





LSA

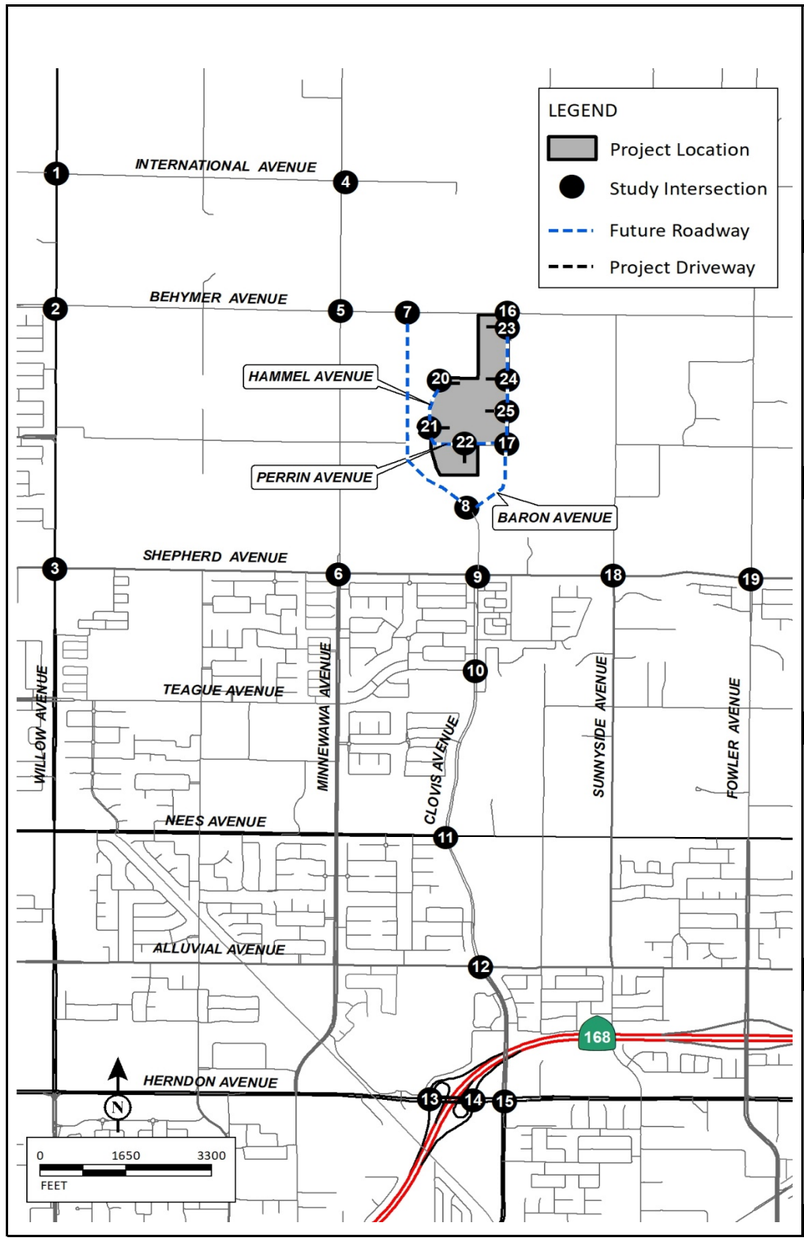
FIGURE 7-2

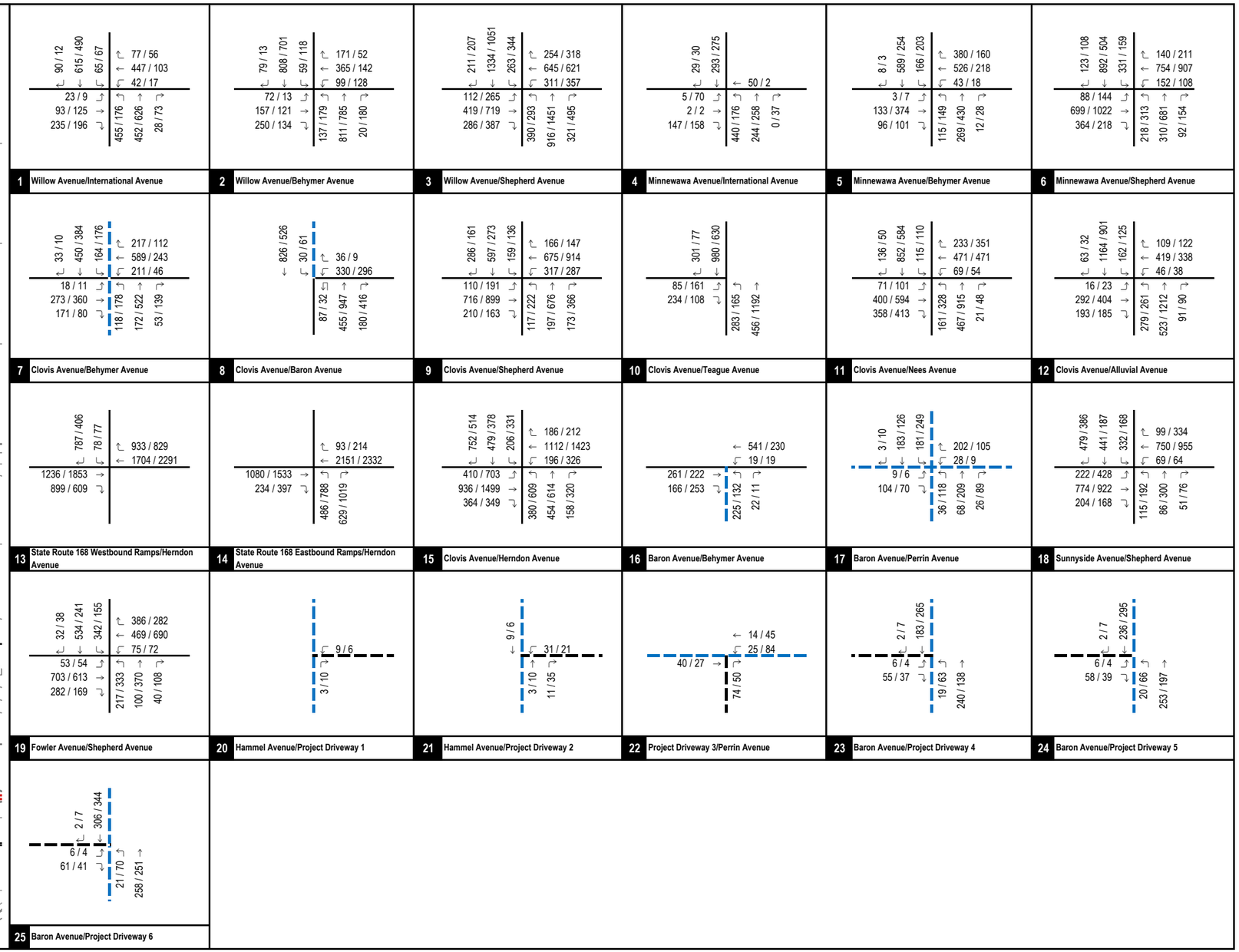
XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis

Near-Term (2026) Plus Project Peak Hour Traffic Volumes

P:\CIT2201-TM 6343\PRODUCTS\Traffic\March 2023\z45_Vol_2026 Near Term_WP.xlsx 3/15/2023





LSA

FIGURE 7-3

XXXX / YYYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis

Cumulative (2046) Plus Project Peak Hour Traffic Volumes

P:\CIT2201-TM 6343\PRODUCTS\Traffic\March 2023\z45_Vol_2046 Cum_WP.xlsx 3/15/2023

8.0 INTERSECTION LEVELS OF SERVICE

8.1 EXISTING LEVELS OF SERVICE

Figure 4-1 illustrates existing study intersection geometrics and traffic control.

8.1.1 Study Intersections

An intersection LOS analysis was conducted for existing conditions using the methodologies previously discussed. Existing Signal timing Sheets were obtained from the City and Caltrans for all signalized analysis intersections. The signal timing sheets are included in Appendix C. It should be noted that the existing signal timings were utilized to analyze traffic operations under near-term and cumulative (2046) scenarios as a conservative approach. Table 8-A summarizes the results of this analysis and shows that the following intersections operate at an unsatisfactory LOS under existing conditions:

- Willow Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/Behymer Avenue (a.m. peak hour only)
- Fowler Avenue/Shepherd Avenue (a.m. peak hour only)

All other study intersections operate at a satisfactory LOS under existing conditions.

8.1.2 Roadway Segments

A roadway segment LOS analysis was conducted for existing conditions using the methodologies previously discussed. Table 8-B summarizes the results of this analysis and shows that all the study roadway segments currently operate at a satisfactory LOS under existing conditions.

8.2 EXISTING PLUS PROJECT LEVELS OF SERVICE

Analysis of the existing with project scenario is provided to identify direct project-related operational deficiency if the project were to be built and in operation today. This scenario eliminates the effects of ambient growth and other cumulative projects and deals specifically with operational deficiencies only due to the project traffic. Figure 4-2 illustrates the study intersection geometrics and traffic control under all 'plus project' scenarios.

8.2.1 Study Intersections

An intersection LOS analysis was conducted for existing plus project conditions using the methodologies previously discussed. Table 8-A summarizes the results of this analysis and shows that the following intersection is forecasted to operate at an unsatisfactory LOS under existing plus project conditions:

- Willow Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/Behymer Avenue (a.m. peak hour only)

- Fowler Avenue/Shepherd Avenue (a.m. peak hour only)

Based on the operational deficiency criteria stated in Section 3.2 of this TIA, the project is forecasted to create an operational deficiency at these intersections. All other study intersections are forecasted to operate at a satisfactory LOS under existing plus project conditions.

It should be noted that all four intersections are currently operating at a deficient LOS. As such, the project is forecast to add to the existing deficiencies at these intersections.

8.2.2 Roadway Segments

A roadway segment LOS analysis was conducted for existing plus project conditions using the methodologies previously discussed. Table 8-B summarizes the results of this analysis and shows that all study roadway segments are forecasted to operate at a satisfactory LOS under existing plus project conditions.

8.3 NEAR-TERM (2026) PLUS PROJECT LEVELS OF SERVICE

8.3.1 Study Intersections

An intersection LOS analysis was conducted for near-term plus project conditions using the methodologies previously discussed. Table 8-C summarizes the results of this analysis and shows that the following intersections are forecasted to operate at an unsatisfactory LOS under near-term plus project conditions:

- Willow Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/Behymer Avenue (a.m. peak hour only)
- Minnewawa Avenue/Shepherd Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Shephard Avenue (p.m. peak hour only)
- Clovis Avenue/Nees Avenue (p.m. peak hour only)
- Clovis Avenue/Herndon Avenue (a.m. and p.m. peak hours)
- Sunnyside Avenue/Shepherd Avenue (a.m. and p.m. peak hours)
- Fowler Avenue/Shepherd Avenue (a.m. and p.m. peak hours)

Based on the operational deficiency criteria stated in Section 3.2 of this TIA, the project is forecasted to create an operational deficiency at these intersections. All other study intersections are forecasted to operate at a satisfactory LOS under near-term plus project conditions.

8.3.2 Roadway Segments

A roadway segment LOS analysis was conducted for near-term plus project conditions using the methodologies previously discussed. Table 8-D summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS under near-term plus project conditions:

- Shepherd Avenue between Willow Avenue and Minnewawa Avenue (p.m. peak hour only)
- Shepherd Avenue between Clovis Avenue and Sunnyside Avenue (p.m. peak hour only)
- Minnewawa Avenue between Behymer Avenue and Shepherd Avenue (a.m. and p.m. peak hours)

All other roadway segments are forecasted to operate at a satisfactory LOS under near-term plus project conditions.

8.4 CUMULATIVE (2046) WITHOUT PROJECT LEVELS OF SERVICE

8.4.1 Study Intersections

An intersection LOS analysis was conducted for cumulative without project conditions using the methodologies previously discussed. Table 8-E summarizes the results of this analysis and shows that the following intersections are forecasted to operate at an unsatisfactory LOS under cumulative without project conditions:

- Willow Avenue/International Avenue (a.m. peak hour only)
- Willow Avenue/Shepherd Avenue (p.m. peak hour only)
- Minnewawa Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/Behymer Avenue (a.m. and p.m. peak hours)
- Minnewawa Avenue/Shepherd Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Behymer Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Baron Avenue (p.m. peak hour only)
- Clovis Avenue/Shepherd Avenue (p.m. peak hour only)
- Clovis Avenue/Nees Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Herndon Avenue (a.m. and p.m. peak hours)
- Baron Avenue/Behymer Avenue (a.m. peak hour only)
- Sunnyside Avenue/Shepherd Avenue (a.m. and p.m. peak hours)
- Fowler Avenue/Shepherd Avenue (a.m. and p.m. peak hours)

All other study intersections are forecasted to operate at a satisfactory LOS under cumulative (2046) without project conditions.

8.4.2 Roadway Segments

A roadway segment LOS analysis was conducted for cumulative without project conditions using the methodologies previously discussed. Table 8-F summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS under cumulative without project conditions:

- Behymer Avenue between Minnewawa Avenue and Sunnyside Avenue (a.m. peak hour only)
- Behymer Avenue between Clovis Avenue and Baron Avenue (a.m. peak hour only)
- Shepherd Avenue between Willow Avenue and Minnewawa Avenue (p.m. peak hour only)
- Shepherd Avenue between Clovis Avenue and Sunnyside Avenue (p.m. peak hour only)
- Minnewawa Avenue between International Avenue and Behymer Avenue (a.m. peak hour only)

- Minnewawa Avenue between Behymer Avenue and Shepherd Avenue (a.m. and p.m. peak hours)

All other roadway segments are forecasted to operate at a satisfactory LOS under cumulative without project conditions.

8.5 CUMULATIVE (2046) PLUS PROJECT LEVELS OF SERVICE

8.5.1 Study Intersections

An intersection LOS analysis was conducted for cumulative plus project conditions using the methodologies previously discussed. Table 8-E summarizes the results of this analysis and shows that the following intersection is forecasted to operate at an unsatisfactory LOS under cumulative plus project conditions:

- Willow Avenue/International Avenue (a.m. peak hour only)
- Willow Avenue/Shepherd Avenue (p.m. peak hour only)
- Minnewawa Avenue/International Avenue (a.m. peak hour only)
- Minnewawa Avenue/Behymer Avenue (a.m. and p.m. peak hours)
- Minnewawa Avenue/Shepherd Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Behymer Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Baron Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Shepherd Avenue (p.m. peak hour only)
- Clovis Avenue/Nees Avenue (a.m. and p.m. peak hours)
- Clovis Avenue/Alluvial Avenue (a.m. peak hour only)
- Clovis Avenue/Herndon Avenue (a.m. and p.m. peak hours)
- Baron Avenue/Behymer Avenue (a.m. peak hour only)
- Sunnyside Avenue/Shepherd Avenue (a.m. and p.m. peak hours)
- Fowler Avenue/Shepherd Avenue (a.m. and p.m. peak hours)

Based on the operational deficiency criteria stated in Section 3.2 of this TIA, the project is forecasted to create an operational deficiency at these intersections. All other study intersections are forecasted to operate at a satisfactory LOS under cumulative plus project conditions.

It should be noted that out of 14 intersections that are forecast to operate at a deficient LOS under cumulative (2046) plus project conditions, 13 intersections are forecast to operate at a deficient LOS under cumulative (2046) without project conditions. As such, the project will be adding to the forecasted deficiencies at these intersections.

Detailed intersection LOS worksheets are included in Appendix E.

8.5.2 Roadway Segments

A roadway segment LOS analysis was conducted for cumulative plus project conditions using the methodologies previously discussed. Table 8-F summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS under cumulative plus project conditions:

- Behymer Avenue between Minnewawa Avenue and Sunnyside Avenue (a.m. peak hour only)
- Behymer Avenue between Clovis Avenue and Baron Avenue (a.m. peak hour only)
- Shepherd Avenue between Willow Avenue and Minnewawa Avenue (p.m. peak hour only)
- Shepherd Avenue between Clovis Avenue and Sunnyside Avenue (a.m. and p.m. peak hours)
- Shepherd Avenue between Sunnyside Avenue and Fowler Avenue (p.m. peak hour only)
- Minnewawa Avenue between International Avenue and Behymer Avenue (a.m. peak hour only)
- Minnewawa Avenue between Behymer Avenue and Shepherd Avenue (a.m. and p.m. peak hours)
- Baron Avenue between Perrin Avenue and Clovis Avenue (p.m. peak hour only)

Based on the operational deficiency criteria stated in Section 3.2 of this TIA, the project is forecasted to create an operational deficiency at these roadway segments. All other roadway segments are forecasted to operate at a satisfactory LOS under cumulative plus project conditions.

It should be noted that out of the eight roadway segments forecast to operate at a deficient LOS, six segments are forecast to operate at a deficient LOS under cumulative (2046) without project conditions. As such, the project is forecast to add to the forecasted deficiencies at these six roadway segments.

8.6 LIST OF CHAPTER 8.0 TABLES

- Table 8-A: Existing Intersection Levels of Service
- Table 8-B: Existing Roadway Segment Levels of Service
- Table 8-C: Near-Term (2026) Intersection Levels of Service
- Table 8-D: Near-Term (2026) Roadway Segment Levels of Service
- Table 8-E: Cumulative (2046) Intersection Levels of Service
- Table 8-F: Cumulative (2046) Roadway Segment Levels of Service

Table 8-A - Existing Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Without Project					Plus Project					A.M. Peak Hour Increase in Delay (sec.)	P.M. Peak Hour Increase in Delay (sec.)	Improvement Required?
			Control	A.M. Peak Hour Delay (sec.)	A.M. Peak Hour LOS	P.M. Peak Hour Delay (sec.)	P.M. Peak Hour LOS	Control	A.M. Peak Hour Delay (sec.)	A.M. Peak Hour LOS	P.M. Peak Hour Delay (sec.)	P.M. Peak Hour LOS			
1 . Willow Avenue/International Avenue	Clovis/Fresno	D	Signal	72.7	**E** *	25.6	C	Signal	78.2	**E** *	26.1	C	5.5	0.5	**Yes**
2 . Willow Avenue/Behymer Avenue	Clovis/Fresno	D	Signal	27.5	C	27.5	C	Signal	27.7	C	27.7	C	0.2	0.2	No
3 . Willow Avenue/Shepherd Avenue	Clovis/Fresno	D	Signal	37.1	D	40.2	D	Signal	37.8	D	40.9	D	0.7	0.7	No
4 . Minnewawa Avenue/International Avenue	Clovis	D	TWSC	41.8	**E** *	10.7	B	TWSC	43.0	**E** *	10.8	B	1.2	0.1	**Yes**
5 . Minnewawa Avenue/Behymer Avenue	Clovis	D	AWSC	58.7	**F** *	12.3	B	AWSC	69.9	**F** *	13.0	B	11.2	0.7	**Yes**
6 . Minnewawa Avenue/Shepherd Avenue	Clovis	D	Signal	46.7	D	45.8	D	Signal	48.0	D	47.2	D	1.3	1.4	No
7 . Clovis Avenue/Behymer Avenue	Clovis	D	-	*Future Intersection*		*Future Intersection*		-	*Future Intersection*		*Future Intersection*		0.0	0.0	No
8 . Clovis Avenue/Baron Avenue	Clovis	D	AWSC	8.0	A	7.4	A	AWSC	11.5	B	11.6	B	3.5	4.2	No
9 . Clovis Avenue/Shepherd Avenue	Clovis	D	Signal	50.1	D	54.5	D	Signal	45.2	D	54.5	D	-4.9	0.0	No
10 . Clovis Avenue/Teague Avenue	Clovis	D	Signal	29.6	C	16.8	B	Signal	30.1	C	18.9	B	0.5	2.1	No
11 . Clovis Avenue/Nees Avenue	Clovis	D	Signal	50.3	D	50.9	D	Signal	51.4	D	51.3	D	1.1	0.4	No
12 . Clovis Avenue/Alluvial Avenue	Clovis	D	Signal	40.8	D	37.5	D	Signal	40.9	D	37.7	D	0.1	0.2	No
13 . State Route 168 Westbound Ramps/Herndon Avenue	Caltrans	45 sec	Signal	26.1	C	26.2	C	Signal	26.4	C	26.2	C	0.3	0.0	No
14 . State Route 168 Eastbound Ramps/Herndon Avenue	Caltrans	45 sec	Signal	21.0	C	22.7	C	Signal	21.2	C	24.2	C	0.2	1.5	No
15 . Clovis Avenue/Herndon Avenue	Clovis	D	Signal	44.1	D	51.3	D	Signal	45.5	D	52.9	D	1.4	1.6	No
16 . Baron Avenue/Behymer Avenue	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	16.0	C	11.0	B	16.0	11.0	No
17 . Baron Avenue/Perrin Avenue	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	10.1	B	9.8	A	10.1	9.8	No
18 . Sunnyside Avenue/Shepherd Avenue	Clovis	D	AWSC	13.2	B	12.9	B	AWSC	14.3	B	14.6	B	1.1	1.7	No
19 . Fowler Avenue/Shepherd Avenue	Clovis	D	Signal	69.1	**E** *	54.6	D	Signal	69.3	**E** *	54.9	D	0.2	0.3	**Yes**
20 . Hammel Avenue/Project Driveway 1	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.5	A	8.6	A	8.5	8.6	No
21 . Hammel Avenue/Project Driveway 2	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.7	A	8.8	A	8.7	8.8	No
22 . Project Driveway 3/Perrin Avenue	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.8	A	8.6	A	8.8	8.6	No
23 . Baron Avenue/Project Driveway 4	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.6	A	8.7	A	8.6	8.7	No
24 . Baron Avenue/Project Driveway 5	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.9	A	8.9	A	8.9	8.9	No
25 . Baron Avenue/Project Driveway 6	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	9.3	A	9.2	A	9.3	9.2	No

Notes:

AWSC= All-Way Stop Control; OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

Table 8-B - Existing Roadway Segment Weekday Peak Hour Levels of Service

Roadway Segment	Jurisdiction	Existing Classification	Peak Hour Roadway Capacity[2]	A.M. Peak Hour				P.M. Peak Hour			
				Without Project		Plus Project		Without Project		Plus Project	
				Volume[3]	LOS	Volume[3]	LOS	Volume[3]	LOS	Volume[3]	LOS
Segments on International Avenue											
1 . between Willow Avenue and Minnewawa Avenue	Clovis	2-Lane Undivided Collector	1,310	470	C	480	C	170	C	170	C
Segments on Behymer Avenue											
2 . between Willow Avenue and Minnewawa Avenue	Clovis	2-Lane Undivided Arterial	1,310	370	C	390	C	240	C	270	C
3 . between Minnewawa Avenue and Clovis Avenue	Clovis	2-Lane Undivided Arterial	1,310	700	D	740	D	380	C	420	C
4 . between Clovis Avenue and Baron Avenue	Clovis	2-Lane Undivided Collector	1,310	700	D	740	D	380	C	420	C
Segments on Shepherd Avenue											
5 . between Willow Avenue and Minnewawa Avenue	Clovis	3-Lane Raised Median Arterial	2,830	890	C	960	C	1,040	C	1,140	C
6 . between Minnewawa Avenue and Clovis Avenue	Clovis	3-Lane Raised Median Arterial	2,830	910	C	1,020	C	950	C	1,090	C
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	2-Lane Undivided Expressway	2,130	870	C	930	C	810	C	880	C
8 . between Sunnyside Avenue and Fowler Avenue	Clovis	2-Lane Undivided Expressway	2,130	750	C	800	C	710	C	760	C
Segments on Herndon Avenue											
9 . between State Route 168 Eastbound Ramps and Clovis Avenue	Clovis	10-Lane Raised Median Arterial	9,475	2,920	C	3,030	C	3,760	C	3,910	C
Segments on Willow Avenue											
10 . between International Avenue and Behymer Avenue	Clovis	6-Lane Raised Median Arterial	5,680	1,280	C	1,310	C	840	C	890	C
11 . between Behymer Avenue and Shepherd Avenue	Clovis	6-Lane Raised Median Arterial	5,680	1,640	C	1,660	C	1,460	C	1,480	C
Segments on Minnewawa Avenue											
12 . between International Avenue and Behymer Avenue	Clovis	2-Lane Undivided Collector	1,310	870	D	880	D	610	D	620	D
13 . between Behymer Avenue and Shepherd Avenue	Clovis	2-Lane Undivided Arterial	1,310	550	C	550	C	490	C	490	C
Segments on Baron Avenue											
14 . between Behymer Avenue and Perrin Avenue	Clovis	2-Lane Undivided Collector	1,310	10	C	250	C	0	C	340	C
15 . between Perrin Avenue and Clovis Avenue	Clovis	2-Lane Undivided Collector	1,310	*Future Segment*		380	C	*Future Segment*		510	C
Segments on Clovis Avenue											
16 . between Baron Avenue and Shepherd Avenue	Clovis	4-Lane Raised Median Arterial	3,780	280	C	660	C	150	C	650	C
17 . between Shepherd Avenue and Teague Avenue	Clovis	4-Lane Raised Median Arterial	3,780	510	C	720	C	460	C	750	C
18 . between Teague Avenue and Nees Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,020	C	1,220	C	830	C	1,090	C
19 . between Nees Avenue and Alluvial Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,010	C	1,170	C	1,090	C	1,310	C
20 . between Alluvial Avenue and Herndon Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,480	C	1,630	C	1,730	C	1,940	C

Notes:

LOS = Level of Service

[1] Classifications for all segments have been obtained from the City of Clovis's General Plan Circulation Map, dated 2014.

[2] Roadway capacities for all segments have been obtained from the Clovis General Plan and Development Code Update Draft PEIR, dated June 2014.

[3] Roadway volumes have been rounded up to the nearest ten.

Table 8-C - Near-Term (2026) Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Plus Project						Improvement Required?
			Control	A.M. Peak Hour			P.M. Peak Hour		
				Delay (sec.)	LOS		Delay (sec.)	LOS	
1 . Willow Avenue/International Avenue	Clovis/Fresno	D	Signal	99.6	**F**	*	31.9	C	**Yes**
2 . Willow Avenue/Behymer Avenue	Clovis/Fresno	D	Signal	28.4	C		37.7	D	No
3 . Willow Avenue/Shepherd Avenue	Clovis/Fresno	D	Signal	43.7	D		53.0	D	No
4 . Minnewawa Avenue/International Avenue	Clovis	D	TWSC	47.1	**E**	*	18.3	C	**Yes**
5 . Minnewawa Avenue/Behymer Avenue	Clovis	D	AWSC	100.9	**F**	*	16.9	C	**Yes**
6 . Minnewawa Avenue/Shepherd Avenue	Clovis	D	Signal	118.0	**F**	*	148.0	**F**	* **Yes**
7 . Clovis Avenue/Behymer Avenue	Clovis	D	AWSC	12.5	B		8.7	A	No
8 . Clovis Avenue/Baron Avenue	Clovis	D	AWSC	30.1	D		33.9	D	No
9 . Clovis Avenue/Shepherd Avenue	Clovis	D	Signal	53.0	D		69.6	**E**	* **Yes**
10 . Clovis Avenue/Teague Avenue	Clovis	D	Signal	30.3	C		21.4	C	No
11 . Clovis Avenue/Nees Avenue	Clovis	D	Signal	51.5	D		60.7	**E**	* **Yes**
12 . Clovis Avenue/Alluvial Avenue	Clovis	D	Signal	42.6	D		40.0	D	No
13 . State Route 168 Westbound Ramps/Herndon Avenue	Caltrans	45 sec	Signal	27.3	C		26.9	C	No
14 . State Route 168 Eastbound Ramps/Herndon Avenue	Caltrans	45 sec	Signal	22.4	C		36.6	D	No
15 . Clovis Avenue/Herndon Avenue	Clovis	D	Signal	57.9	**E**	*	67.6	**E**	* **Yes**
16 . Baron Avenue/Behymer Avenue	Clovis	D	OWSC	15.9	C		10.7	B	No
17 . Baron Avenue/Perrin Avenue	Clovis	D	OWSC	10.1	B		9.8	A	No
18 . Sunnyside Avenue/Shepherd Avenue	Clovis	D	AWSC	>200	**F**	*	>200	**F**	* **Yes**
19 . Fowler Avenue/Shepherd Avenue	Clovis	D	Signal	81.7	**F**	*	137.6	**F**	* **Yes**
20 . Hammel Avenue/Project Driveway 1	Clovis	D	OWSC	8.5	A		8.6	A	No
21 . Hammel Avenue/Project Driveway 2	Clovis	D	OWSC	8.7	A		8.8	A	No
22 . Project Driveway 3/Perrin Avenue	Clovis	D	OWSC	8.8	A		8.6	A	No
23 . Baron Avenue/Project Driveway 4	Clovis	D	OWSC	8.7	A		8.8	A	No
24 . Baron Avenue/Project Driveway 5	Clovis	D	OWSC	9.0	A		9.0	A	No
25 . Baron Avenue/Project Driveway 6	Clovis	D	OWSC	9.4	A		9.2	A	No

Notes:

AWSC= All-Way Stop Control; OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

Table 8-C - Near-Term (2026) Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Plus Project					Improvement Required?
			Control	A.M. Peak Hour		P.M. Peak Hour		
				Delay (sec.)	LOS	Delay (sec.)	LOS	

Table 8-D - Near-Term (2026) Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	Existing Classification	Peak Hour Roadway Capacity[2]	A.M. Peak Hour		P.M. Peak Hour	
				Plus Project		Plus Project	
				Volume[3]	LOS	Volume[3]	LOS
Segments on International Avenue							
1 . between Willow Avenue and Minnewawa Avenue	Clovis	2-Lane Undivided Collector	1,310	490	C	200	C
Segments on Behymer Avenue							
2 . between Willow Avenue and Minnewawa Avenue	Clovis	2-Lane Undivided Arterial	1,310	410	C	310	C
3 . between Minnewawa Avenue and Clovis Avenue	Clovis	2-Lane Undivided Arterial	1,310	760	D	460	C
4 . between Clovis Avenue and Baron Avenue	Clovis	2-Lane Undivided Collector	1,310	750	D	460	C
Segments on Shepherd Avenue							
5 . between Willow Avenue and Minnewawa Avenue	Clovis	3-Lane Raised Median Arterial	2,830	2,040	D	2,760	**E** *
6 . between Minnewawa Avenue and Clovis Avenue	Clovis	3-Lane Raised Median Arterial	2,830	1,970	D	2,470	D
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	2-Lane Undivided Expressway	2,130	1,990	D	2,390	**F** *
8 . between Sunnyside Avenue and Fowler Avenue	Clovis	2-Lane Undivided Expressway	2,130	1,610	D	1,990	D
Segments on Herndon Avenue							
9 . between State Route 168 Eastbound Ramps and Clovis Avenue	Clovis	10-Lane Raised Median Arterial	9,475	3,510	C	4,520	C
Segments on Willow Avenue							
10 . between International Avenue and Behymer Avenue	Clovis	6-Lane Raised Median Arterial	5,680	1,720	C	1,480	C
11 . between Behymer Avenue and Shepherd Avenue	Clovis	6-Lane Raised Median Arterial	5,680	2,920	C	3,460	D
Segments on Minnewawa Avenue							
12 . between International Avenue and Behymer Avenue	Clovis	2-Lane Undivided Collector	1,310	950	D	710	D
13 . between Behymer Avenue and Shepherd Avenue	Clovis	2-Lane Undivided Arterial	1,310	1,240	**E** *	1,430	**F** *
Segments on Baron Avenue							
14 . between Behymer Avenue and Perrin Avenue	Clovis	2-Lane Undivided Collector	1,310	260	C	350	C
15 . between Perrin Avenue and Clovis Avenue	Clovis	2-Lane Undivided Collector	1,310	510	C	710	D
Segments on Clovis Avenue							
16 . between Baron Avenue and Shepherd Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,130	C	1,270	C
17 . between Shepherd Avenue and Teague Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,160	C	1,360	C
18 . between Teague Avenue and Nees Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,650	C	1,670	C
19 . between Nees Avenue and Alluvial Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,850	C	2,230	D
20 . between Alluvial Avenue and Herndon Avenue	Clovis	4-Lane Raised Median Arterial	3,780	2,240	D	2,750	D

Notes:

LOS = Level of Service

[1] Classifications for all segments have been obtained from the City of Clovis's General Plan Circulation Map, dated 2014.

[2] Roadway capacities for all segments have been obtained from the Clovis General Plan and Development Code Update Draft PEIR, dated June 2014.

[3] Roadway volumes have been rounded up to the nearest ten.

Table 8-E - Cumulative (2046) Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Without Project					Plus Project					A.M. Peak Hour Increase in Delay (sec.)	P.M. Peak Hour Increase in Delay (sec.)	Improvement Required?
			Control	A.M. Peak Hour Delay (sec.)	A.M. Peak Hour LOS	P.M. Peak Hour Delay (sec.)	P.M. Peak Hour LOS	Control	A.M. Peak Hour Delay (sec.)	A.M. Peak Hour LOS	P.M. Peak Hour Delay (sec.)	P.M. Peak Hour LOS			
1 . Willow Avenue/International Avenue	Clovis/Fresno	D	Signal	75.4	E *	26.1	C	Signal	79.6	E *	29.0	C	4.2	2.9	**Yes**
2 . Willow Avenue/Behymer Avenue	Clovis/Fresno	D	Signal	41.4	D	31.1	C	Signal	43.2	D	31.6	C	1.8	0.5	No
3 . Willow Avenue/Shepherd Avenue	Clovis/Fresno	D	Signal	50.8	D	61.9	E *	Signal	51.0	D	64.1	E *	0.2	2.2	**Yes**
4 . Minnewawa Avenue/International Avenue	Clovis	D	TWSC	195.2	F *	28.4	D	TWSC	>200	F *	29.9	D	13.1	1.5	**Yes**
5 . Minnewawa Avenue/Behymer Avenue	Clovis	D	AWSC	>200	F *	>200	F *	AWSC	>200	F *	>200	F *	18.2	11.1	**Yes**
6 . Minnewawa Avenue/Shepherd Avenue	Clovis	D	Signal	154.0	F *	149.0	F *	Signal	164.2	F *	162.3	F *	10.2	13.3	**Yes**
7 . Clovis Avenue/Behymer Avenue	Clovis	D	AWSC	>200	F *	>200	F *	AWSC	>200	F *	>200	F *	19.5	5.6	**Yes**
8 . Clovis Avenue/Baron Avenue	Clovis	D	AWSC	30.1	D	>200	F *	AWSC	79.2	F *	>200	F *	49.1	49.8	**Yes**
9 . Clovis Avenue/Shepherd Avenue	Clovis	D	Signal	50.7	D	69.1	E *	Signal	50.7	D	71.3	E *	0.0	2.2	**Yes**
10 . Clovis Avenue/Teague Avenue	Clovis	D	Signal	31.7	C	18.8	B	Signal	34.7	C	21.7	C	3.0	2.9	No
11 . Clovis Avenue/Nees Avenue	Clovis	D	Signal	59.1	E *	83.4	F *	Signal	59.5	E *	83.8	F *	0.4	0.4	**Yes**
12 . Clovis Avenue/Alluvial Avenue	Clovis	D	Signal	51.7	D	46.6	D	Signal	56.4	E *	49.7	D	4.7	3.1	**Yes**
13 . State Route 168 Westbound Ramps/Herndon Avenue	Caltrans	45 sec	Signal	31.0	C	27.4	C	Signal	32.1	C	27.4	C	1.1	0.0	No
14 . State Route 168 Eastbound Ramps/Herndon Avenue	Caltrans	45 sec	Signal	22.2	C	31.5	C	Signal	22.6	C	38.3	D	0.4	6.8	No
15 . Clovis Avenue/Herndon Avenue	Clovis	D	Signal	56.8	E *	83.5	F *	Signal	63.5	E *	90.4	F *	6.7	6.9	**Yes**
16 . Baron Avenue/Behymer Avenue	Clovis	D	OWSC	61.3	F *	16.3	C	OWSC	86.7	F *	17.6	C	25.4	1.3	**Yes**
17 . Baron Avenue/Perrin Avenue	Clovis	D	TWSC	10.3	B	9.8	A	OWSC	13.1	B	14.3	B	2.8	4.5	No
18 . Sunnyside Avenue/Shepherd Avenue	Clovis	D	AWSC	>200	F *	>200	F *	AWSC	>200	F *	>200	F *	21.6	32.9	**Yes**
19 . Fowler Avenue/Shepherd Avenue	Clovis	D	Signal	85.3	F *	122.6	F *	Signal	86.0	F *	129.1	F *	0.7	6.5	**Yes**
20 . Hammel Avenue/Project Driveway 1	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.5	A	8.6	A	8.5	8.6	No
21 . Hammel Avenue/Project Driveway 2	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.7	A	8.8	A	8.7	8.8	No
22 . Project Driveway 3/Perrin Avenue	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	8.8	A	8.6	A	8.8	8.6	No
23 . Baron Avenue/Project Driveway 4	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	9.9	A	10.4	B	9.9	10.4	No
24 . Baron Avenue/Project Driveway 5	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	10.4	B	10.8	B	10.4	10.8	No
25 . Baron Avenue/Project Driveway 6	Clovis	D	-	*Future Intersection*		*Future Intersection*		OWSC	11.0	B	11.4	B	11.0	11.4	No

Notes:

AWSC= All-Way Stop Control; OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

Table 8-F - Cumulative (2046) Roadway Segment Levels of Service

Roadway Segment	Jurisdiction	Existing Classification	Peak Hour Roadway Capacity[2]	A.M. Peak Hour				P.M. Peak Hour			
				Without Project		Plus Project		Without Project		Plus Project	
				Volume[3]	LOS	Volume[3]	LOS	Volume[3]	LOS	Volume[3]	LOS
Segments on International Avenue											
1 . between Willow Avenue and Minnewawa Avenue	Clovis	2-Lane Undivided Collector	1,310	750	D	750	D	450	C	450	C
Segments on Behymer Avenue											
2 . between Willow Avenue and Minnewawa Avenue	Clovis	2-Lane Undivided Arterial	1,310	940	D	960	D	930	D	960	D
3 . between Minnewawa Avenue and Clovis Avenue	Clovis	2-Lane Undivided Arterial	1,310	1,260	E *	1,290	E *	990	D	1,030	D
4 . between Clovis Avenue and Baron Avenue	Clovis	2-Lane Undivided Collector	1,310	1,430	F *	1,470	F *	1,050	D	1,100	D
Segments on Shepherd Avenue											
5 . between Willow Avenue and Minnewawa Avenue	Clovis	3-Lane Raised Median Arterial	2,830	2,060	D	2,140	D	2,790	E *	2,890	F *
6 . between Minnewawa Avenue and Clovis Avenue	Clovis	3-Lane Raised Median Arterial	2,830	1,950	D	2,050	D	2,430	D	2,570	D
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	2-Lane Undivided Expressway	2,130	2,020	D	2,080	E *	2,420	F *	2,490	F *
8 . between Sunnyside Avenue and Fowler Avenue	Clovis	2-Lane Undivided Expressway	2,130	1,610	D	1,650	D	2,010	D	2,070	E *
Segments on Herndon Avenue											
9 . between State Route 168 Eastbound Ramps and Clovis Avenue	Clovis	10-Lane Raised Median Arterial	9,475	3,760	C	3,870	C	4,780	C	4,930	C
Segments on Willow Avenue											
10 . between International Avenue and Behymer Avenue	Clovis	6-Lane Raised Median Arterial	5,680	1,760	C	1,800	C	1,500	C	1,550	C
11 . between Behymer Avenue and Shepherd Avenue	Clovis	6-Lane Raised Median Arterial	5,680	3,040	C	3,060	D	3,600	D	3,630	D
Segments on Minnewawa Avenue											
12 . between International Avenue and Behymer Avenue	Clovis	2-Lane Undivided Collector	1,310	1,400	F *	1,420	F *	1,150	D	1,170	D
13 . between Behymer Avenue and Shepherd Avenue	Clovis	2-Lane Undivided Arterial	1,310	1,800	F *	1,800	F *	1,570	F *	1,570	F *
Segments on Baron Avenue											
14 . between Behymer Avenue and Perrin Avenue	Clovis	2-Lane Undivided Collector	1,310	630	D	870	D	560	C	890	D
15 . between Perrin Avenue and Clovis Avenue	Clovis	2-Lane Undivided Collector	1,310	810	D	1,180	D	790	D	1,300	E *
Segments on Clovis Avenue											
16 . between Baron Avenue and Shepherd Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,120	C	1,500	C	960	C	1,470	C
17 . between Shepherd Avenue and Teague Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,330	C	1,540	C	1,590	C	1,880	C
18 . between Teague Avenue and Nees Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,670	C	1,870	C	1,770	C	2,040	D
19 . between Nees Avenue and Alluvial Avenue	Clovis	4-Lane Raised Median Arterial	3,780	1,770	C	1,930	C	2,100	D	2,320	D
20 . between Alluvial Avenue and Herndon Avenue	Clovis	4-Lane Raised Median Arterial	3,780	2,230	D	2,380	D	2,660	D	2,870	D

Notes:

LOS = Level of Service

[1] Classifications for all segments have been obtained from the City of Clovis's General Plan Circulation Map, dated 2014.

[2] Roadway capacities for all segments have been obtained from the Clovis General Plan and Development Code Update Draft PEIR, dated June 2014.

[3] Roadway volumes have been rounded up to the nearest ten.

9.0 CIRCULATION IMPROVEMENTS AND FUNDING SOURCES

9.1 RECOMMENDED IMPROVEMENTS

Improvements have been recommended at study intersections and roadway segments where an operational deficiency has been identified based on the results of the LOS analysis. Table 9-A summarizes the recommended improvements for study intersections for all analysis scenarios. Tables 9-B, 9-C, and 9-D summarize the post-improvement intersection LOS under existing, near-term, and cumulative conditions, respectively.

It should be noted that as shown in Tables 8-A, 8-C, and 8-E, the intersections of SR- 168 Westbound Ramps/Herndon Avenue, and SR- 168 Eastbound Ramps/Herndon Avenue are forecast to operate at a satisfactory LOS under all scenarios. However, as shown in Tables 10-B and 10-C, both the ramp intersections are projected to have queuing deficiencies under future conditions (Near-term and cumulative scenarios). Additionally, the adjacent intersection of Clovis Avenue/Herndon Avenue is forecast to operate at an unsatisfactory LOS under Near-term, and cumulative scenarios, which may further deteriorate the ramp performance due to proximity of this intersection to the freeway ramps. Therefore, an evaluation of these intersections using signal timing coordination and optimization was performed under near-term and cumulative scenario. As shown in Tables 9-C, and 9-D, the intersection of Clovis Avenue/Herndon Avenue is forecast to operate at a satisfactory LOS along with the ramp intersections under Near-term, and cumulative scenarios with implementation of this improvement. Further, as shown in Tables 10-E and 10-F, and discussed in chapter 10.0 of this report, this also helps eliminate the queuing issues at the ramp intersections along with additional storage length improvement proposed to the SR- 168 Westbound Ramps at Herndon Avenue.

Detailed LOS worksheets are included in Appendix E. Figures 9-1, 9-2, and 9-3 illustrate the with recommended improvements intersection geometrics and traffic control under existing, near-term, and cumulative conditions, respectively.

It should be noted that peak-hour signal warrant analyses have been conducted for the intersections where a signal has been proposed. As such, a signal was only recommended as an improvement if it meets the peak-hour signal warrant. Detailed signal warrant analysis worksheets are included in Appendix F.

Table 9-E summarizes the recommended improvements for roadway segments for all analysis scenarios. Tables 9-F and 9-G summarize the post-improvement roadway segment LOS under near-term and cumulative conditions, respectively.

9.2 FUNDING SOURCES AND MECHANISMS

Where there is a funding mechanism (fee program) for the recommended improvements, payment into the fee program would be considered sufficient project obligation to alleviate project-related operational deficiencies. At study locations where the addition of project traffic creates an operational deficiency (existing Plus project conditions) and there is no funding mechanism in place, the project will be responsible for the implementation of the improvement. At locations where the

project adds to or creates a forecast deficiency and there is no funding mechanism in place, the project is responsible for its fair-share payment.

9.2.1 City of Clovis Development Impact Fee Program and Operations

Several recommended improvements are part of City of Clovis operations or Clovis Development Impact Fee (DIF) Program. As such, improvements that proposes optimizing the signal timings or modifications of existing signal operations only would be implemented by City of Clovis operations. Additionally, improvements that are included in the City's DIF program, the project will be paying into this fee program for these improvements. The City currently have three mechanisms within its DIF program which will be responsible for these improvements. Following is a summary of these three mechanisms within the City's DIF program:

- **Traffic Signal Fee:** The Traffic Signal fee pays for the construction and financing of those certain planned traffic signals at the intersection of Major Streets and the interconnecting fiber optic system.
- **Outside Travel Lane Fee:** The Outside Travel Lane fee pays for the construction and financing of those certain planned travel lanes of a Major Street that are located between the frontage improvements and the Center Travel Lanes.
- **Center Travel Lane Fee:** The Center Travel Lane fee pays for the construction and financing of those certain planned travel lanes of a Major Street that are located within the median area. The fee also includes the adjacent travel lane on roads with 4 lanes or less, or the 2 adjacent lanes on 6-lane roads.

9.2.2 Fresno County Regional Transportation Mitigation Fee Program

The Fresno County Regional Transportation Mitigation Fee (RTMF) was created to fulfill one of the terms of the Measure 'C' Extension ballot measure, which was approved by Fresno County voters in 2006. The RTMF became effective on January 1, 2010. The RTMF is "intended to ensure that future development contributes to its fair share towards the cost of infrastructure to mitigate the cumulative, indirect regional transportation impacts of new growth in a manner consistent with the provisions of the State of California Mitigation Fee Act". The fees help fund improvements needed to maintain the target level of service in the face of higher traffic volumes brought on by new developments. As such, any new development within Fresno County, including developments within the City are required to pay the RTMF fee based on the adopted fee structure. The project will also be paying the RTMF fee which will help fund improvements and maintenance of the regional roadway network. As such, one of the listed improvements is covered by RTMF.

9.2.3 Project Fair Share

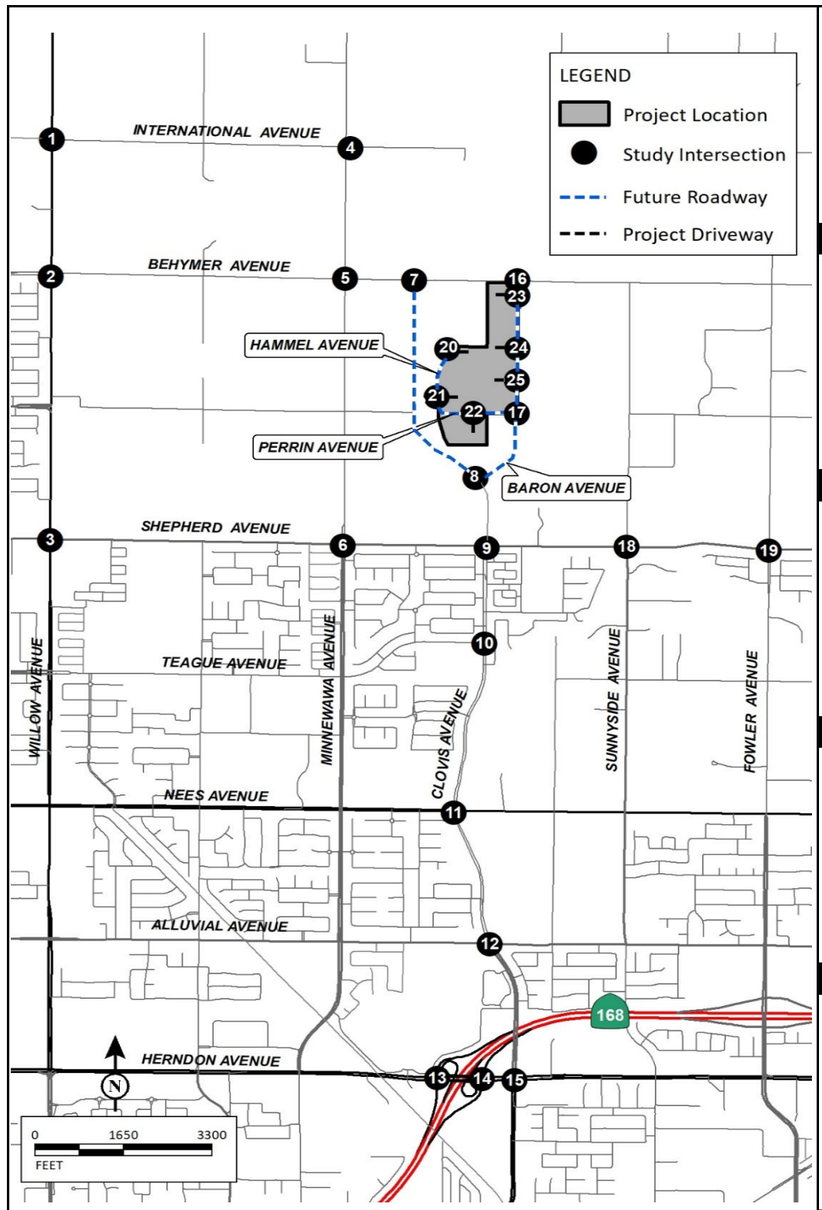
In the absence of a fee program where the project has an impact on the roadway network, the project will pay its respective fair share for the proposed improvements. The project's fair share has been calculated based on project traffic as a percentage of total growth of existing traffic plus project volumes. However, none of the improvements require a far share payment.

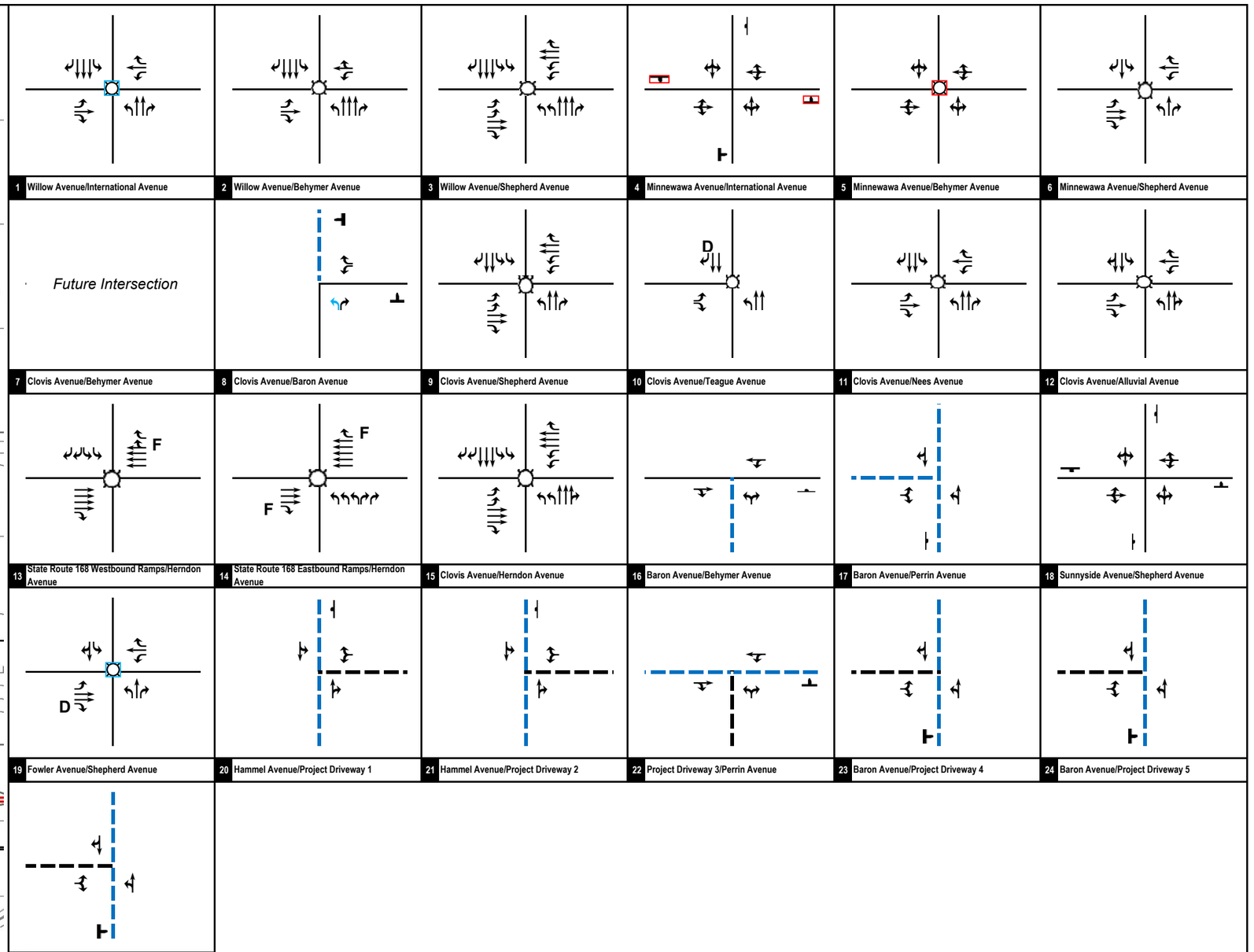
Table 9-H summarizes the recommended improvement for the deficient intersections, and their funding mechanism.

Table 9-I summarizes the corresponding improvements and funding mechanism for the roadway segments.

9.3 LIST OF CHAPTER 9.0 FIGURES AND TABLES

- Figure 9-1: Existing Plus Project with Improvements Study Intersection Geometrics and Traffic Control
- Figure 9-2: Near-Term (2026) Plus Project with Improvements Study Intersection Geometrics and Traffic Control
- Figure 9-3: Cumulative (2046) Plus Project with Improvements Study Intersection Geometrics and Traffic Control
- Table 9-A: Recommended Improvements for Intersections
- Table 9-B: Existing Plus Project with Recommended Improvements Intersection Levels of Service
- Table 9-C: Near-Term (2026) Plus Project with Recommended Improvements Intersection Levels of Service
- Table 9-D: Cumulative (2046) Plus Project with Improvements with Recommended Improvements Intersection Levels of Service
- Table 9-E: Recommended Improvements for Roadway Segments
- Table 9-F: Near-Term (2026) Plus Project with Recommended Improvements Roadway Segments Levels of Service
- Table 9-G: Cumulative (2046) Plus Project with Recommended Improvements Roadway Segments Levels of Service
- Table 9-H: Intersection Improvement Funding Mechanism
- Table 9-I: Roadway Segment Improvement Funding Mechanism and Fair Share





LSA

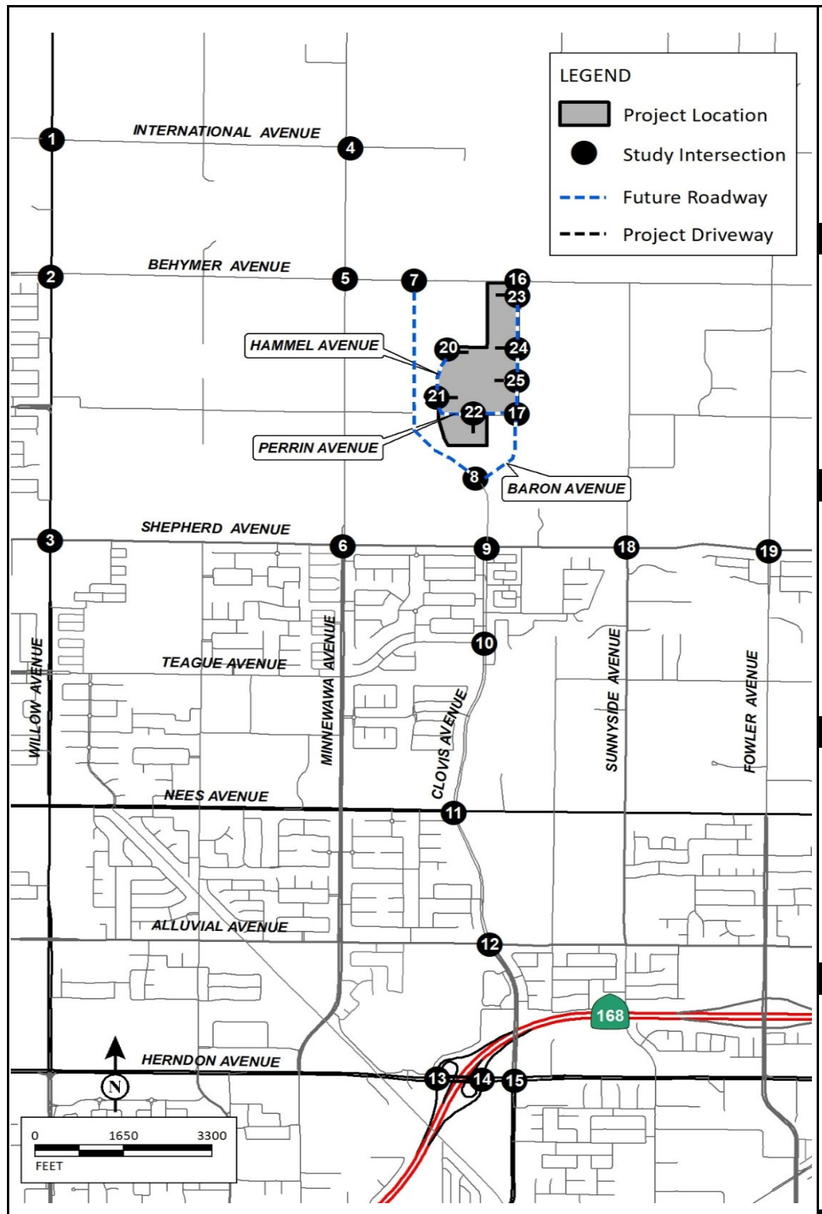
FIGURE 9-1

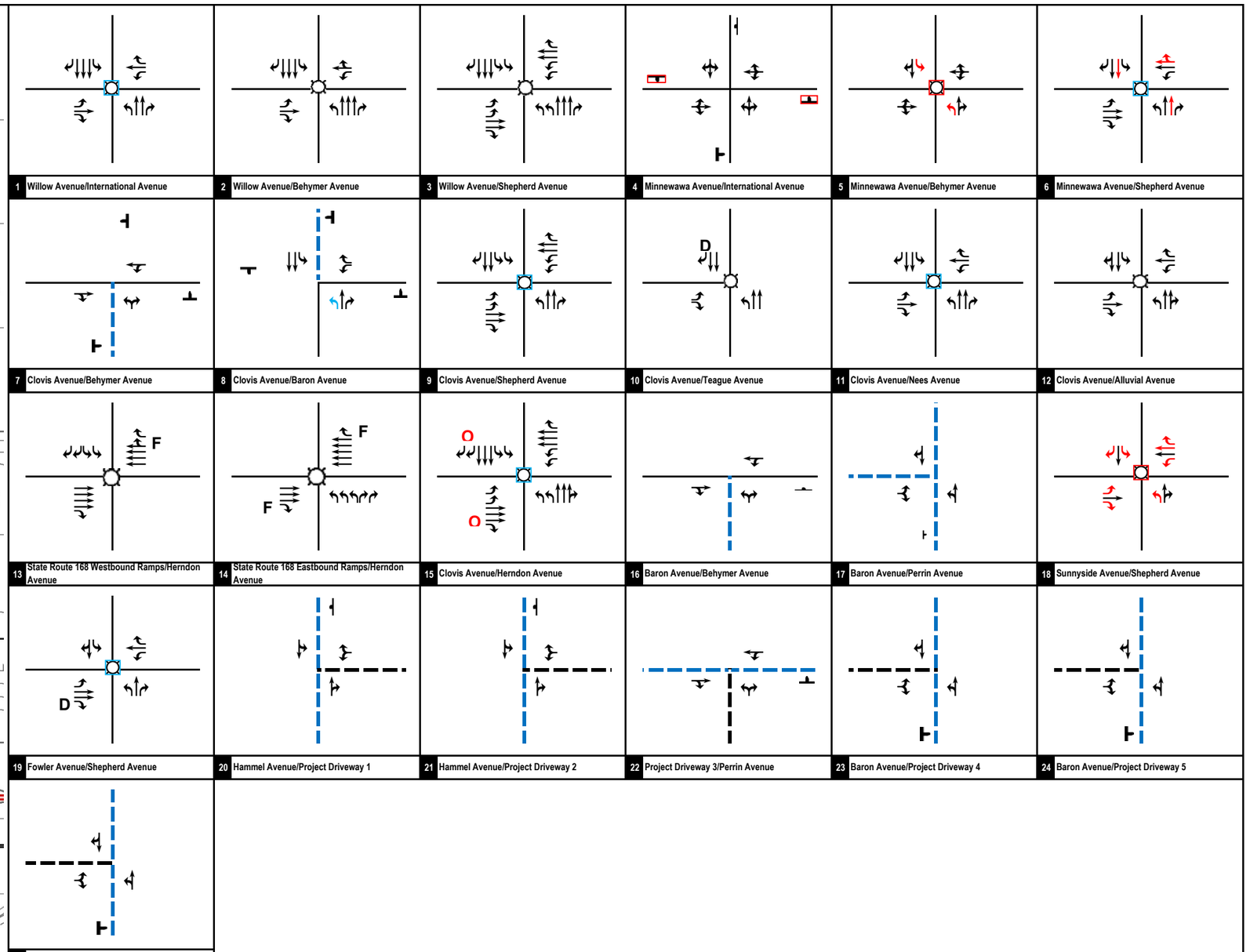
Legend

Signal
Stop Sign
D Defacto right turn
F Free right-turn
O Right-turn overlap
Y Yield
Future Roadway
Project Driveway
U-turn
Optimize Signal Timing
Install Traffic Signal
Recommended Improvements

Tract Map 6343 Project
Transportation Impact Analysis

Existing Plus Project with Improvements Study Intersection Geometrics and Traffic Control





LSA

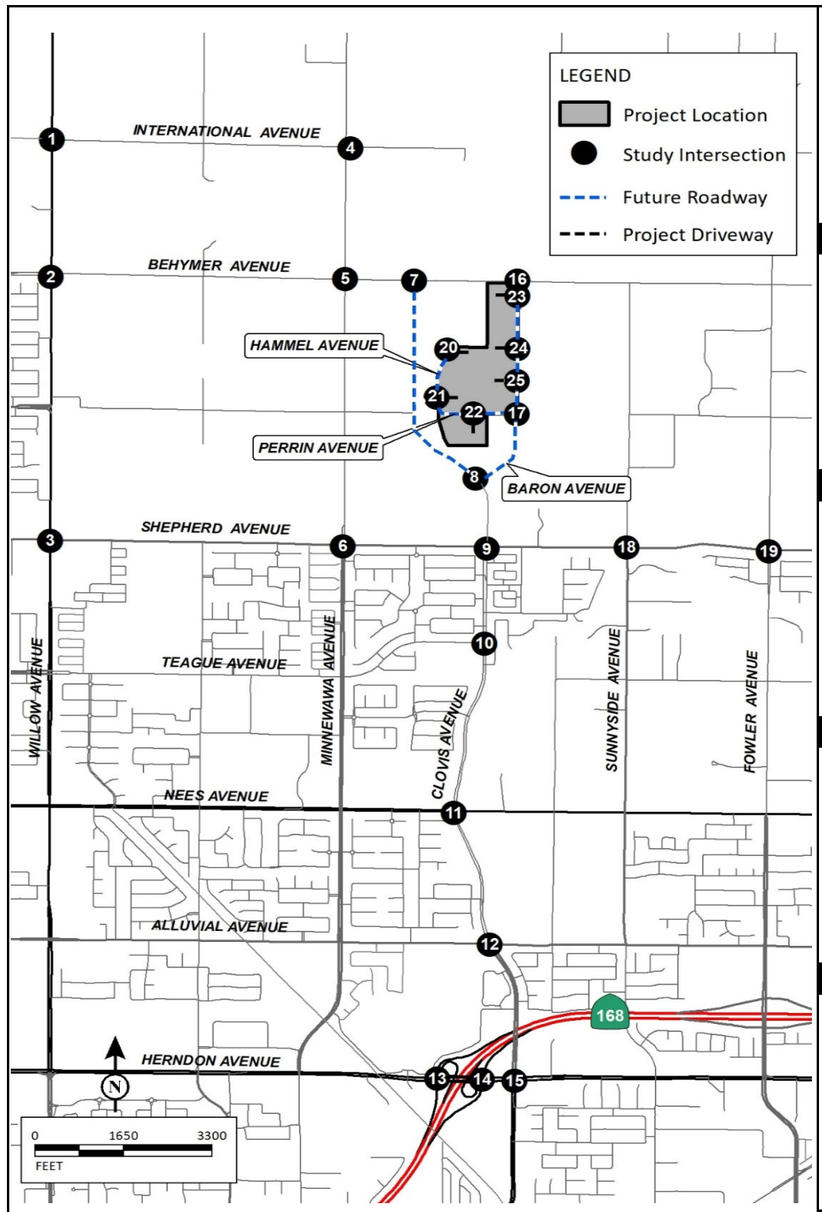
FIGURE 9-2

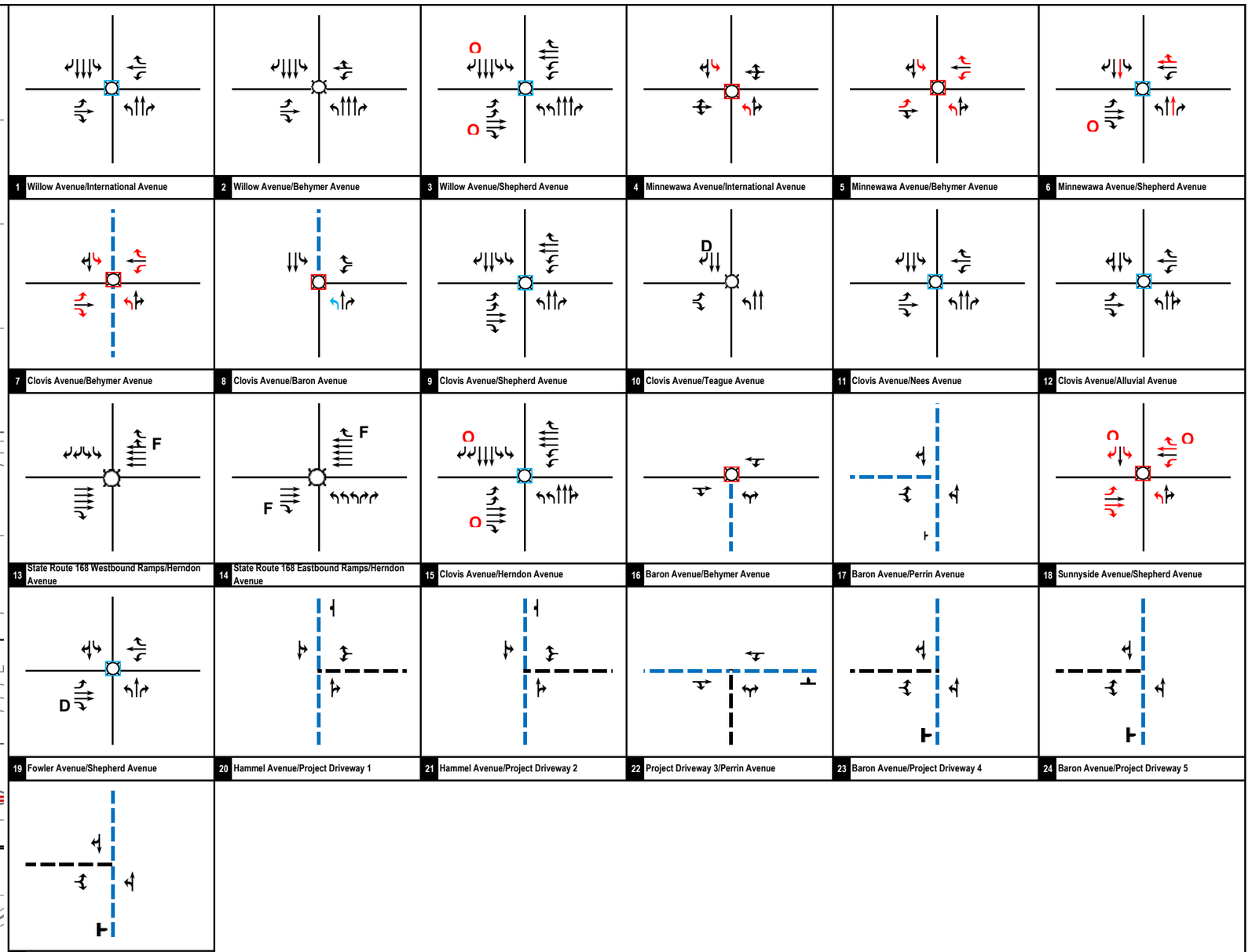
Legend

Signal	F Free right-turn	Future Roadway	Optimize Signal Timing
Stop Sign	O Right-turn overlap	Project Driveway	Install Traffic Signal
D Defacto right turn	Y Yield	U-turn	Recommended Improvements

Tract Map 6343 Project
Transportation Impact Analysis

Near -Term (2026) Plus Project with Improvements Study Intersection Geometrics and Traffic Control





LSA

FIGURE 9-3

Legend

Signal
Stop Sign
D Defacto right turn
F Free right-turn
O Right-turn overlap
Y Yield
Future Roadway
Project Driveway
U-turn
Optimize Signal Timing
Install Traffic Signal
Recommended Improvements

Tract Map 6343 Project
Transportation Impact Analysis

Cumulative (2046) Plus Project with Improvements Study Intersection Geometrics and Traffic Control

P:\CIT2201-TM 6343\PRODUCTS\Traffic\March 2023\g-45_Geo_2046 Cum WP_Impro.xlsx 7/21/2023

Table 9-A - Recommended Improvements for Intersections

	Intersection	Jurisdiction	Existing Plus Project Improvements	Near-Term (2026) Plus Project Improvements	Cumulative (2046) Plus Project Improvements
1 .	Willow Avenue/International Avenue	Clovis/Fresno	Optimize signal timing.	Optimize signal timing.	Optimize signal timing.
3	Willow Avenue/Shepherd Avenue	Clovis/Fresno			Add NBR and EBR overlap phasing, Optimize signal timing.
4	Minnewawa Avenue/International Avenue	Clovis	Convert from TWSC to AWSC	Convert from TWSC to AWSC	Install a signal. Add NBL, SBL.
5	Minnewawa Avenue/Behymer Avenue	Clovis	Install a signal.	Install a signal. Add NBL, SBL.	Install a signal. Add NBL, SBL, EBL, WBL, WBR.
6	Minnewawa Avenue/Shepherd Avenue	Clovis		Add NBT, SBT, WBT. Optimize the signal timing.	Add NBT, SBT, WBT. Add EBR overlap phasing. Optimize the signal timing.
7	Clovis Avenue/Behymer Avenue	Clovis			Install a signal. Add NBL, SBL, EBL, EBR, WBR, WBL.
8	Clovis Avenue/Baron Avenue	Clovis		Restripe NB approach to NBU, NBT, and NBR (Part of Clovis Avenue Extension).	Install a signal. Restripe NB approach to NBU, NBT, and NBR (Part of Clovis Avenue Extension).
9	Clovis Avenue/Shepherd Avenue	Clovis		Optimize signal timing.	Optimize signal timing.
11	Clovis Avenue/Nees Avenue	Clovis		Optimize signal timing.	Optimize signal timing.
12	Clovis Avenue/Alluvial Avenue	Clovis			Optimize signal timing.
15	Clovis Avenue/Herndon Avenue	Clovis		Add EBR and SBR overlap phasing and restrict NB and EB U-turns. Coordinate and optimize signal along with the SR-168 ramp intersections.	Add EBR and SBR overlap phasing and restrict NB and EB U-turns. Coordinate and optimize signal along with the SR-168 ramp intersections.
16	Baron Avenue/Behymer Avenue	Clovis			Install a signal with E/W split phasing.
18	Sunnyside Avenue/Shepherd Avenue	Clovis		Install a signal. Add NBL, SBL, SBR, EBL, EBR, WBL, WBT, WBR.	Install a signal. Add NBL, SBL, SBR with overlap phasing, EBL, EBT, EBR, WBL, WBT, WBR with overlap phasing.
19	Fowler Avenue/Shepherd Avenue	Clovis	Optimize signal timing.	Optimize signal timing.	Optimize signal timing.

Notes:

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound

L = Left, T = Through, R = Right

Table 9-B - Existing Plus Project with Recommended Improvements Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Plus Project Without Improvements						Plus Project With Improvements				
				A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour		P.M. Peak Hour	
			Control	Delay (sec.)	LOS		Delay (sec.)	LOS	Control	Delay (sec.)	LOS	Delay (sec.)	LOS
1 . Willow Avenue/International Avenue	Clovis/Fresno	D	Signal	78.2	E	*	26.1	C	Signal	47.0	D	26.1	C
4 . Minnewawa Avenue/International Avenue	Clovis	D	TWSC	43.0	E	*	10.8	B	AWSC	22.1	C	10.4	B
5 . Minnewawa Avenue/Behymer Avenue	Clovis	D	AWSC	69.9	F	*	13.0	B	Signal	17.6	B	11.8	B
19 . Fowler Avenue/Shepherd Avenue	Clovis	D	Signal	69.3	E	*	54.9	D	Signal	35.5	D	36.7	D

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

Table 9-C - Near-Term (2026) Plus Project with Recommended Improvements Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Plus Project Without Improvements								Plus Project With Improvements				
			Control	A.M. Peak Hour			P.M. Peak Hour				Control	A.M. Peak Hour		P.M. Peak Hour	
				Delay (sec.)	LOS		Delay (sec.)	Delay (sec.)	LOS			Delay (sec.)	LOS	Delay (sec.)	LOS
1 . Willow Avenue/International Avenue	Clovis/Fresno	D	Signal	99.6	F	*	31.9	31.9	C		Signal	48.4	D	31.9	C
4 . Minnewawa Avenue/International Avenue	Clovis	D	TWSC	47.1	E	*	18.3	18.3	C		AWSC	25.4	D	11.0	B
5 . Minnewawa Avenue/Behymer Avenue	Clovis	D	AWSC	100.9	F	*	16.9	16.9	C		Signal	17.9	B	11.5	B
6 . Minnewawa Avenue/Shepherd Avenue	Clovis	D	Signal	118.0	F	*	148.0	148.0	F	*	Signal	49.2	D	45.6	D
9 . Clovis Avenue/Shepherd Avenue	Clovis	D	Signal	53.0	D		69.6	69.6	E	*	Signal	53.0	D	45.6	D
11 . Clovis Avenue/Nees Avenue	Clovis	D	Signal	51.5	D		60.7	60.7	E	*	Signal	38.5	D	44.4	D
15 . Clovis Avenue/Herndon Avenue	Clovis	D	Signal	57.9	E	*	67.6	67.6	E	*	Signal	33.4	C	46.2	D
18 . Sunnyside Avenue/Shepherd Avenue	Clovis	D	AWSC	>200	F	*	>200	533.4	F	*	Signal	34.1	C	39.2	D
19 . Fowler Avenue/Shepherd Avenue	Clovis	D	Signal	81.7	F	*	137.6	137.6	F	*	Signal	46.3	D	43.7	D

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

Table 9-D - Cumulative (2046) Plus Project with Recommended Improvements Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	Plus Project Without Improvements						Plus Project With Improvements				
				A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour		P.M. Peak Hour	
			Control	Delay (sec.)	LOS		Delay (sec.)	LOS	Control	Delay (sec.)	LOS	Delay (sec.)	LOS
1 . Willow Avenue/International Avenue	Clovis/Fresno	D	Signal	79.6	**E**	*	29.0	C	Signal	48.9	D	29.0	C
3 . Willow Avenue/Shepherd Avenue	Clovis/Fresno	D	Signal	51.0	D		64.1	**E** *	Signal	48.1	D	54.6	D
4 . Minnewawa Avenue/International Avenue	Clovis	D	TWSC	>200	**F**	*	29.9	D	Signal	27.5	C	19.9	B
5 . Minnewawa Avenue/Behymer Avenue	Clovis	D	AWSC	>200	**F**	*	>200	**F** *	Signal	43.5	D	31.1	C
6 . Minnewawa Avenue/Shepherd Avenue	Clovis	D	Signal	164.2	**F**	*	162.3	**F** *	Signal	54.7	D	50.5	D
7 . Clovis Avenue/Behymer Avenue	Clovis	D	AWSC	>200	**F**	*	>200	**F** *	Signal	40.1	D	42.3	D
8 . Clovis Avenue/Baron Avenue	Clovis	D	AWSC	79.2	**F**	*	>200	**F** *	Signal	15.0	B	23.9	C
9 . Clovis Avenue/Shepherd Avenue	Clovis	D	Signal	50.7	D		71.3	**E** *	Signal	50.0	D	50.4	D
11 . Clovis Avenue/Nees Avenue	Clovis	D	Signal	59.5	**E**	*	83.8	**F** *	Signal	39.9	D	51.4	D
12 . Clovis Avenue/Alluvial Avenue	Clovis	D	Signal	56.4	**E**	*	49.7	D	Signal	54.9	D	49.6	D
15 . Clovis Avenue/Herndon Avenue	Clovis	D	Signal	63.5	**E**	*	90.4	**F** *	Signal	36.8	D	49.0	D
16 . Baron Avenue/Behymer Avenue	Clovis	D	OWSC	86.7	**F**	*	17.6	C	Signal	43.0	D	17.2	B
18 . Sunnyside Avenue/Shepherd Avenue	Clovis	D	AWSC	>200	**F**	*	>200	**F** *	Signal	37.4	D	53.8	D
19 . Fowler Avenue/Shepherd Avenue	Clovis	D	Signal	86.0	**F**	*	129.1	**F** *	Signal	55.0	D	53.6	D

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control; LOS = Level of Service

Delay = Average control delay in seconds (For OWSC/TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

Table 9-E - Recommended Improvements for Roadway Segments

Roadway Segment	Jurisdiction	Near-Term (2026) Plus Project Improvements	Cumulative (2046) Plus Project Improvements
Segments on Behymer Avenue			
3 . between Minnewawa Avenue and Clovis Avenue	Clovis		Convert to 2-Lane TWLTL Collector
4 . between Clovis Avenue and Baron Avenue	Clovis		Convert to 2-Lane TWLTL Collector
Segments on Shepherd Avenue			
5 . between Willow Avenue and Minnewawa Avenue	Clovis	Convert to 4-Lane Raised Median Arterial	Convert to 4-Lane Raised Median Arterial
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	Convert to 4-Lane Raised Median Expressway	Convert to 4-Lane Raised Median Expressway
8 . between Sunnyside Avenue and Fowler Avenue	Clovis		Convert to 4-Lane Raised Median Expressway
Segments on Minnewawa Avenue			
12 . between International Avenue and Behymer Avenue	Clovis		Convert to 4-Lane Undivided Arterial
13 . between Behymer Avenue and Shepherd Avenue	Clovis	Convert to 4-Lane Undivided Arterial	Convert to 4-Lane Undivided Arterial
Segments on Baron Avenue			
15 . between Perrin Avenue and Clovis Avenue	Clovis		Convert to 2-Lane Divided Collector

Table 9-F - Near Term (2026) Plus Project with Recommended Improvements Roadway Segments Levels of Service

Roadway Segment	Jurisdiction	Existing Classification	Proposed Classification	A.M. Peak Hour						P.M. Peak Hour					
				Plus Project Without Improvements			Plus Project With Improvements			Plus Project Without Improvements			Plus Project With Improvements		
				Capacity	Volume[3]	LOS	Capacity	Volume[3]	LOS	Capacity	Volume[3]	LOS	Capacity	Volume[3]	LOS
Segments on Shepherd Avenue															
5 . between Willow Avenue and Minnewawa Avenue	Clovis	3-Lane Raised Median Arterial	4-Lane Raised Median Arterial	2,830	2,040	D	3780	2,040	D	2,830	2,760	E *	3780	2,760	D
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	2-Lane Undivided Expressway	4-Lane Raised Median Expressway	2,130	1,990	D	4260	1,990	C	2,130	2,390	F *	4260	2,390	D
Segments on Minnewawa Avenue															
13 . between Behymer Avenue and Shepherd Avenue	Clovis	2-Lane Undivided Arterial	4-Lane Undivided Arterial	1,310	1,240	E *	2640	1,240	C	1,310	1,430	F *	2640	1,430	D

Notes:

LOS = Level of Service

[1] Classifications for all segments have been obtained from the City of Clovis's General Plan Circulation Map, dated 2014.

[2] Roadway capacities for all segments have been obtained from the Clovis General Plan and Development Code Update Draft PEIR, dated June 2014.

[3] Roadway volumes have been rounded up to the nearest ten.

Table 9-G - Cumulative (2046) Plus Project with Recommended Improvements Roadway Segments Levels of Service

Roadway Segment	Jurisdiction	Existing Classification	Proposed Classification	A.M. Peak Hour						P.M. Peak Hour					
				Plus Project Without Improvements			Plus Project With Improvements			Plus Project Without Improvements			Plus Project With Improvements		
				Capacity	Volume[4]	LOS	Capacity	Volume[4]	LOS	Capacity	Volume[4]	LOS	Capacity	Volume[4]	LOS
Segments on Behymer Avenue															
3 . between Minnewawa Avenue and Clovis Avenue	Clovis	2-Lane Undivided Arterial	2-Lane TWLTL Collector	1,310	1,290	E *	1790	1,290	D	1,310	1,030	D	1790	1,030	D
4 . between Clovis Avenue and Baron Avenue	Clovis	2-Lane Undivided Collector	2-Lane TWLTL Collector	1,310	1,470	F *	1790	1,470	D	1,310	1,100	D	1790	1,100	D
Segments on Shepherd Avenue															
5 . between Willow Avenue and Minnewawa Avenue	Clovis	3-Lane Raised Median Arterial	4-Lane Raised Median Arterial	2,830	2,140	D	3780	2,140	D	2,830	2,890	F *	3780	2,890	D
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	2-Lane Undivided Expressway	4-Lane Raised Median Expressway	2,130	2,080	E *	4260	2,080	D	2,130	2,490	F *	4260	2,490	D
8 . between Sunnyside Avenue and Fowler Avenue	Clovis	2-Lane Undivided Expressway	4-Lane Raised Median Expressway	2,130	1,650	D	4260	1,650	C	2,130	2,070	E *	4260	2,070	C
Segments on Minnewawa Avenue															
12 . between International Avenue and Behymer Avenue	Clovis	2-Lane Undivided Collector	4-Lane Undivided Arterial	1,310	1,420	F *	2640	1,420	D	1,310	1,170	D	2640	1,170	C
13 . between Behymer Avenue and Shepherd Avenue	Clovis	2-Lane Undivided Arterial	4-Lane Undivided Arterial	1,310	1,800	F *	2640	1,800	D	1,310	1,570	F *	2640	1,570	D
Segments on Baron Avenue															
15 . between Perrin Avenue and Clovis Avenue	Clovis	2-Lane Undivided Collector	2-Lane Divided Collector[3]	1,310	1,180	D	1790	1,180	D	1,310	1,300	E *	1790	1,300	D

Notes:

LOS = Level of Service

[1] Classifications for all segments have been obtained from the City of Clovis's General Plan Circulation Map, dated 2014.

[2] Roadway capacities for all segments have been obtained from the Clovis General Plan and Development Code Update Draft PEIR, dated June 2014.

[3] The City's General Plan does not provide a capacity for a 2-Lane Divided Collector. Therefore, for purposes of this analysis the capacity for a 2-Lane TWLTL Collector (which typically would operate as a 2-Lane Divided Collector) has been applied.

[4] Roadway volumes have been rounded up to the nearest ten.

Table 9-H - Intersection Improvement Funding Mechanism

Intersection	Jurisdiction	Recommended Improvements	Funding Mechanism	Improvements Covered by Clovis Development Improvement Fee Program/Operations	Improvements Covered by Regional Transportation Mitigation Fee (RTMF)
1 . Willow Avenue/International Avenue	Clovis/Fresno	Optimize signal timing.	Clovis DIF	Optimize signal timing.	
3 . Willow Avenue/Shepherd Avenue	Clovis/Fresno	Add NBR and EBR overlap phasing, Optimize signal timing.	Clovis Operations	Add NBR and EBR overlap phasing, Optimize signal timing.	
4 . Minnewawa Avenue/International Avenue	Clovis	Install a signal. Add NBL, SBL.	Clovis DIF	Install a signal. Add NBL, SBL.	
5 . Minnewawa Avenue/Behymer Avenue	Clovis	Install a signal. Add NBL, SBL, EBL, WBL, WBR.	Clovis DIF	Install a signal. Add NBL, SBL, EBL, WBL, WBR.	
6 . Minnewawa Avenue/Shepherd Avenue	Clovis	Add NBT, SBT, WBT. Add EBR overlap phasing. Optimize the signal timing.	Clovis Operations	Add NBT, SBT, WBT. Add EBR overlap phasing. Optimize the signal timing.	
7 . Clovis Avenue/Behymer Avenue	Clovis	Install a signal. Add NBL, SBL, EBL, EBR, WBR, WBL.	Clovis DIF	Install a signal. Add NBL, SBL, EBL, EBR, WBR, WBL.	
8 . Clovis Avenue/Baron Avenue	Clovis	Install a signal. Restripe NB approach to NBU, NBT, and NBR (Part of Clovis Avenue Extension).	Clovis DIF	Install a signal. Restripe NB approach to NBU, NBT, and NBR (Part of Clovis Avenue Extension).	
9 . Clovis Avenue/Shepherd Avenue	Clovis	Optimize signal timing.	Clovis Operations	Optimize signal timing.	
11 . Clovis Avenue/Nees Avenue	Clovis	Optimize signal timing.	Clovis Operations	Optimize signal timing.	
12 . Clovis Avenue/Alluvial Avenue	Clovis	Optimize signal timing.	Clovis Operations	Optimize signal timing.	
15 . Clovis Avenue/Herndon Avenue	Clovis	Add EBR and SBR overlap phasing and restrict NB and EB U-turns. Coordinate and optimize signal along with the SR-168 ramp intersections.	RTMF		Add EBR and SBR overlap phasing and restrict NB and EB U-turns. Coordinate and optimize signal along with the SR-168 ramp intersections.
16 . Baron Avenue/Behymer Avenue	Clovis	Install a signal with E/W split phasing.	Clovis DIF	Install a signal with E/W split phasing.	
18 . Sunnyside Avenue/Shepherd Avenue	Clovis	Install a signal. Add NBL, SBL, SBR with overlap phasing, EBL, EBT, EBR, WBL, WBT, WBR with overlap phasing.	Clovis DIF	Install a signal. Add NBL, SBL, SBR with overlap phasing, EBL, EBT, EBR, WBL, WBT, WBR with overlap phasing.	
19 . Fowler Avenue/Shepherd Avenue	Clovis	Optimize signal timing.	Clovis Operations	Optimize signal timing.	

Notes:

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound

L = Left, T = Through, R = Right

Table 9-I - Roadway Segment Improvement Funding Mechanism and Fair Share

Roadway Segment	Jurisdiction	Cumulative (2046) Plus Project Improvements	Funding Mechanism	Improvements Covered by Clovis Development Improvement Fee Program	Improvements Covered by Fair Share	Fair Share Percentage[1]
Segments on Behymer Avenue						
3 . between Minnewawa Avenue and Clovis Avenue	Clovis	Convert to 2-Lane TWLTL Collector	Clovis DIF	Convert to 2-Lane TWLTL Collector		
4 . between Clovis Avenue and Baron Avenue	Clovis	Convert to 2-Lane TWLTL Collector	Clovis DIF	Convert to 2-Lane TWLTL Collector		
Segments on Shepherd Avenue						
5 . between Willow Avenue and Minnewawa Avenue	Clovis	Convert to 4-Lane Raised Median Arterial	Clovis DIF	Convert to 4-Lane Raised Median Arterial		
7 . between Clovis Avenue and Sunnyside Avenue	Clovis	Convert to 4-Lane Raised Median Expressway	Clovis DIF	Convert to 4-Lane Raised Median Expressway		
8 . between Sunnyside Avenue and Fowler Avenue	Clovis	Convert to 4-Lane Raised Median Expressway	Clovis DIF	Convert to 4-Lane Raised Median Expressway		
Segments on Minnewawa Avenue						
12 . between International Avenue and Behymer Avenue	Clovis	Convert to 4-Lane Undivided Arterial	Clovis DIF	Convert to 4-Lane Undivided Arterial		
13 . between Behymer Avenue and Shepherd Avenue	Clovis	Convert to 4-Lane Undivided Arterial	Clovis DIF	Convert to 4-Lane Undivided Arterial		
Segments on Baron Avenue						
15 . between Perrin Avenue and Clovis Avenue	Clovis	Convert to 2-Lane Divided Collector	Clovis DIF	Convert to 2-Lane Divided Collector		

Notes:

[1] Project Fair Share Percentage is the highest fair share value of the AM and PM peak hour when both peak hours require improvements, or only in the peak hour that require improvements.

10.0 INTERSECTION QUEUING ANALYSIS

Tables 10-A, 10-B, and 10-C list the available turn-pocket storage lengths and summarize the 95th percentile back-of-queue lengths at the study intersections under existing, near-term, and cumulative (2046) without project and plus project conditions. The queues for the signalized intersections have been reported from Synchro, while for unsignalized intersections, the SimTraffic queues have been reported since Synchro does not appropriately report queues at unsignalized intersections.

Tables 10-D, 10-E, and 10-F lists the 95th percentile back-of-queue lengths at the study intersections for plus project and plus project with improvements conditions, under existing, near-term (2026), and cumulative (2046) scenarios. It also includes the recommended turn-pocket storage lengths at these intersections. The recommended turn pocket storage lengths have been calculated based on recommended lane geometry with improvements and availability of adequate right-of-way.

It should be noted that as shown in Tables 8-A, 8-C, and 8-E, the intersections of SR- 168 Westbound Ramps/Herndon Avenue, and SR- 168 Eastbound Ramps/Herndon Avenue are forecast to operate at a satisfactory LOS under all scenarios. However, as shown in Tables 10-B and 10-C, both the ramp intersections are projected to have queuing deficiencies under future conditions (Near-term and cumulative scenarios). Additionally, the adjacent intersection of Clovis Avenue/Herndon Avenue is forecast to operate at an unsatisfactory LOS under Near-term, and cumulative scenarios, which may further deteriorate the ramp performance due to proximity of this intersection to the freeway ramps. Therefore, an evaluation of these intersections using signal timing coordination and optimization was performed under near-term and cumulative scenario. As shown in Tables 9-C, and 9-D, the intersection of Clovis Avenue/Herndon Avenue is forecast to operate at a satisfactory LOS along with the ramp intersections under Near-term, and cumulative scenarios with implementation of this improvement. Further, as shown in Tables 10-E and 10-F, this also helps eliminate the queuing issues at the ramp intersections along with additional storage length improvement proposed to the SR- 168 Westbound Ramps at Herndon Avenue.

Detailed queuing worksheets are included in Appendix G.

10.1 LIST OF CHAPTER 10.0 TABLES

- Table 10-A: Existing Queuing Analysis
- Table 10-B: Near-Term (2026) Queuing Analysis
- Table 10-C: Cumulative (2046) Queuing Analysis
- Table 10-D: Existing Plus Project with Improvements Queuing Analysis
- Table 10-E: Near-Term (2026) Plus Project with Improvements Queuing Analysis
- Table 10-F: Cumulative (2046) Plus Project with Improvements Queuing Analysis

Table 10-A - Existing Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Existing			
			Without Project[2]		Plus Project [2]	
			AM	PM	AM	PM
1 . Willow Avenue/International Avenue	**NBL**	240	230	90	240	95
Signal	**NBR**	155	10	5	10	5
	SBL	250	105	50	105	50
	SBR	205	30	0	30	0
	EBL	245	50	30	50	30
	EBR	235	30	50	25	60
	WBL	50	35	20	35	20
	WBR	20	0	0	0	0
2 . Willow Avenue/Behymer Avenue	**NBL**	250	130	180	130	180
Signal	**NBR**	105	0	0	0	0
	SBL	250	85	55	90	70
	SBR	200	5	0	5	0
	EBL	235	115	35	115	35
	WBL	90	40	65	40	65
3 . Willow Avenue/Shepherd Avenue	**2x NBL**	250	125	170	125	170
Signal	**NBR**	160	0	20	0	20
	2x SBL	250	125	100	130	110
	SBR	150	0	0	0	0
	2x EBL	230	35	40	35	40
	EBR	100	65	60	60	60
	WBL	250	45	40	50	40
	WBR	100	45	65	65	75
6 . Minnewawa Avenue/Shepherd Avenue	**NBL**	230	175	155	180	155
Signal	**NBR**	105	0	0	10	15
	SBL	255	150	120	150	120
	SBR	25	0	0	0	0
	EBL	230	65	50	65	50
	EBR	50	**105**	40	**105**	35
	WBL	215	80	45	110	70
	WBR	60	50	40	45	40
9 . Clovis Avenue/Shepherd Avenue	**NBL**	235	135	200	135	200
Signal	**NBR**	50	35	15	35	0
	2x SBL	250	20	10	40	30
	SBR	50	10	0	**70**	20
	2x EBL	240	35	35	55	95
	EBR	50	**75**	**55**	**75**	20
	2x WBL	245	90	65	90	65
	WBR	175	0	0	10	0
10 . Clovis Avenue/Teague Avenue	**NBL**	200	200	140	195	140
Signal	**SBR**	50	25	20	**60**	20
	EBL	250	80	75	80	85

Table 10-A - Existing Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Existing			
			Without Project[2]		Plus Project [2]	
			AM	PM	AM	PM
11 . Clovis Avenue/Nees Avenue	**NBL**	300	130	195	130	195
Signal	**NBR**	95	0	0	0	15
	SBL	260	130	90	130	90
	SBR	105	0	0	0	0
	EBL	230	70	55	85	100
	WBL	55	**80**	55	**80**	55
	WBR	60	**115**	5	**115**	25
12 . Clovis Avenue/Alluvial Avenue	**NBL**	230	175	195	185	200
Signal	**SBL**	235	180	120	180	120
	EBL	150	35	40	40	50
	EBR	105	80	100	85	**110**
	WBL	165	80	70	80	70
	WBR	105	25	15	45	35
13 . State Route 168 Westbound Ramps/Herndon Avenue	**SBL**	235	45	45	45	45
Signal	**SBR**	280	**480**	190	**490**	190
	EBR	365	45	40	45	40
14 . State Route 168 Eastbound Ramps/Herndon Avenue	**NBL**	430	150	150	150	150
Signal	**NBR**	430	170	350	185	410
15 . Clovis Avenue/Herndon Avenue	**2x NBL**	200	175	**240**	175	**240**
Signal	**2x SBL**	230	130	195	135	195
	2x SBR	185	45	40	45	45
	2x EBL	240	180	**250**	195	**330**
	2x WBL	245	120	220	120	200
	WBR	150	130	100	135	115
19 . Fowler Avenue/Shepherd Avenue	**NBL**	150	**215**	**175**	**215**	**195**
Signal	**SBL**	200	**265**	180	**265**	180
	EBL	115	50	55	50	55
	WBL	260	80	95	80	95
	WBR	55	**345**	**110**	**350**	**105**

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

1 Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

2 All queues reported are 95th percentile queues. Queues for signalized intersections have been taken from Synchro and queues for stop controlled intersections have been taken from SimTraffic.

Table 10-B - Near-Term (2026) Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Near Term Year (2026) Plus Project [2] AM	Near Term Year (2026) Plus Project [2] PM
1 . Willow Avenue/International Avenue	**NBL**	240	**290**	125
Signal	**NBR**	155	10	20
	SBL	250	105	50
	SBR	205	30	0
	EBL	245	50	30
	EBR	235	25	75
	WBL	50	45	45
	WBR	20	0	0
2 . Willow Avenue/Behymer Avenue	**NBL**	250	185	235
Signal	**NBR**	105	0	0
	SBL	250	95	70
	SBR	200	5	5
	EBL	235	115	35
	WBL	90	50	85
3 . Willow Avenue/Shepherd Avenue	**2x NBL**	250	140	195
Signal	**NBR**	160	125	**450**
	2x SBL	250	180	235
	SBR	150	145	140
	2x EBL	230	90	175
	EBR	100	95	60
	WBL	250	215	250
	WBR	100	**190**	**220**
6 . Minnewawa Avenue/Shepherd Avenue	**NBL**	230	**275**	**280**
Signal	**NBR**	105	40	85
	SBL	255	**310**	205
	SBR	25	**75**	**60**
	EBL	230	130	190
	EBR	50	**220**	**110**
	WBL	215	205	155
	WBR	60	**90**	**165**
9 . Clovis Avenue/Shepherd Avenue	**NBL**	235	170	**280**
Signal	**NBR**	50	**65**	**125**
	2x SBL	250	105	90
	SBR	50	**165**	**100**
	2x EBL	240	90	130
	EBR	50	**85**	**95**
	2x WBL	245	150	120
	WBR	175	55	85

Table 10-B - Near-Term (2026) Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Near Term Year (2026) Plus Project [2] AM	Near Term Year (2026) Plus Project [2] PM
10 . Clovis Avenue/Teague Avenue	**NBL**	200	200	140
Signal	**SBR**	50	**95**	30
	EBL	250	85	95
11 . Clovis Avenue/Nees Avenue	**NBL**	300	235	**500**
Signal	**NBR**	95	0	0
	SBL	260	130	90
	SBR	105	5	0
	EBL	230	90	105
	WBL	55	**125**	**90**
	WBR	60	**110**	5
12 . Clovis Avenue/Alluvial Avenue	**NBL**	230	175	195
Signal	**SBL**	235	**240**	155
	EBL	150	40	50
	EBR	105	80	100
	WBL	165	80	70
	WBR	105	35	45
13 . State Route 168 Westbound Ramps/Herndon Avenue	**SBL**	235	45	50
Signal	**SBR**	280	**490**	190
	EBR	365	45	40
14 . State Route 168 Eastbound Ramps/Herndon Avenue	**NBL**	430	155	155
Signal	**NBR**	430	275	**670**
15 . Clovis Avenue/Herndon Avenue	**2x NBL**	200	185	**260**
Signal	**2x SBL**	230	155	220
	2x SBR	185	150	50
	2x EBL	240	**250**	**590**
	2x WBL	245	125	220
	WBR	150	**155**	**170**

Table 10-B - Near-Term (2026) Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Near Term Year (2026) Plus Project [2] AM	Near Term Year (2026) Plus Project [2] PM
19 . Fowler Avenue/Shepherd Avenue	**NBL**	150	**290**	**425**
Signal	**SBL**	200	**265**	180
	EBL	115	70	90
	WBL	260	80	100
	WBR	55	**360**	**90**

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

1 Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

2 All queues reported are 95th percentile queues. Queues for signalized intersections have been taken from Synchro and queues for stop controlled intersections have been taken from SimTraffic.

Table 10-C - Cumulative (2046) Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Cumulative (2046)			
			Without Project[2]		Plus Project [2]	
			AM	PM	AM	PM
1 . Willow Avenue/International Avenue	**NBL**	240	**395**	120	**410**	125
Signal	**NBR**	155	15	75	15	80
	SBL	250	115	115	115	115
	SBR	205	35	0	35	0
	EBL	245	55	30	55	30
	EBR	235	60	70	60	75
	WBL	50	**85**	45	**85**	45
	WBR	20	20	5	20	5
2 . Willow Avenue/Behymer Avenue	**NBL**	250	240	245	240	245
Signal	**NBR**	105	0	95	0	95
	SBL	250	105	105	110	115
	SBR	200	5	5	5	5
	EBL	235	120	35	120	35
	WBL	90	**155**	**210**	**155**	**210**
3 . Willow Avenue/Shepherd Avenue	**2x NBL**	250	**255**	200	**260**	200
Signal	**NBR**	160	**180**	**495**	**185**	**500**
	2x SBL	250	180	225	185	250
	SBR	150	**165**	150	**165**	150
	2x EBL	230	95	185	95	185
	EBR	100	**155**	**310**	**160**	**320**
	WBL	250	225	**265**	230	**270**
	WBR	100	**185**	**220**	**200**	**235**
6 . Minnewawa Avenue/Shepherd Avenue	**NBL**	230	**335**	**530**	**335**	**530**
Signal	**NBR**	105	45	85	45	**115**
	SBL	255	**580**	215	**580**	215
	SBR	25	**85**	**65**	**85**	**65**
	EBL	230	135	195	135	195
	EBR	50	**355**	**175**	**385**	**175**
	WBL	215	180	140	210	155
	WBR	60	**95**	**175**	**95**	**175**
9 . Clovis Avenue/Shepherd Avenue	**NBL**	235	180	**320**	180	**320**
Signal	**NBR**	50	**65**	**345**	**80**	**400**
	2x SBL	250	85	80	110	95
	SBR	50	**165**	50	**270**	**105**
	2x EBL	240	70	80	90	135
	EBR	50	**180**	**115**	**180**	**115**
	2x WBL	245	205	185	205	185
	WBR	175	90	45	95	90
10 . Clovis Avenue/Teague Avenue	**NBL**	200	**225**	155	**230**	160
Signal	**SBR**	50	**140**	30	**150**	35
	EBL	250	90	135	90	145

Table 10-C - Cumulative (2046) Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Cumulative (2046)			
			Without Project[2]		Plus Project[2]	
			AM	PM	AM	PM
11 . Clovis Avenue/Nees Avenue	**NBL**	300	245	**540**	245	**540**
Signal	**NBR**	95	0	0	0	0
	SBL	260	190	180	190	180
	SBR	105	40	0	95	0
	EBL	230	115	125	130	165
	WBL	55	**130**	**105**	**130**	**105**
	WBR	60	**170**	**310**	**195**	**325**
12 . Clovis Avenue/Alluvial Avenue	**NBL**	230	**445**	**405**	**445**	**405**
Signal	**SBL**	235	**255**	175	**255**	175
	EBL	150	35	40	40	50
	EBR	105	105	105	105	105
	WBL	165	80	70	80	70
	WBR	105	40	50	40	50
13 . State Route 168 Westbound Ramps/Herndon Avenue	**SBL**	235	50	50	50	50
Signal	**SBR**	280	**565**	225	**575**	225
	EBR	365	50	45	50	45
14 . State Route 168 Eastbound Ramps/Herndon Avenue	**NBL**	430	155	240	155	240
Signal	**NBR**	430	305	**620**	320	**710**
15 . Clovis Avenue/Herndon Avenue	**2x NBL**	200	**260**	**445**	**260**	**445**
Signal	**2x SBL**	230	155	225	160	225
	2x SBR	185	165	50	**230**	60
	2x EBL	240	**270**	**515**	**290**	**620**
	2x WBL	245	150	225	150	225
	WBR	150	**165**	**190**	**165**	**200**
19 . Fowler Avenue/Shepherd Avenue	**NBL**	150	**295**	**510**	**300**	**545**
Signal	**SBL**	200	**565**	**230**	**565**	**230**
	EBL	115	100	105	100	105
	WBL	260	130	130	130	130
	WBR	55	**395**	**265**	**400**	**265**

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

[1] Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

[2] All queues reported are 95th percentile queues. Queues for signalized intersections have been taken from Synchro and queues for stop controlled intersections have been taken from SimTraffic.

Table 10-D - Existing Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Existing			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
1 . Willow Avenue/International Avenue	**NBL**	240	300	240	95	230	95
Signal	**NBR**	155	155	10	5	10	5
	SBL	250	250	105	50	105	50
	SBR	205	205	30	0	5	0
	EBL	245	245	50	30	50	30
	EBR	235	235	25	60	30	60
	WBL	50	100	35	20	35	20
	WBR	20	20	0	0	0	0
2 . Willow Avenue/Behymer Avenue	**NBL**	250	250	130	180	130	180
Signal	**NBR**	105	105	0	0	0	0
	SBL	250	250	90	70	90	70
	SBR	200	200	5	0	5	0
	EBL	235	235	115	35	115	35
	WBL	90	210	40	65	40	65
3 . Willow Avenue/Shepherd Avenue	**2x NBL**	250	260	125	170	125	170
Signal	**NBR**	160	225	0	20	0	20
	2x SBL	250	280	130	110	130	110
	SBR	150	165	0	0	0	0
	2x EBL	230	230	35	40	35	40
	EBR	100	175	60	60	60	55
	WBL	250	280	50	40	50	40
	WBR	100	200	65	75	65	75
6 . Minnewawa Avenue/Shepherd Avenue	**NBL**	230	230	180	155	180	155
Signal	**NBR**	105	105	10	15	10	15
	SBL	255	255	150	120	150	120
	SBR	25	25	0	0	0	0
	EBL	230	250	65	50	65	50
	EBR	50	50	**105**	35	**105**	35
	WBL	215	215	110	70	110	70
	WBR	60	60	45	40	45	40
9 . Clovis Avenue/Shepherd Avenue	**NBL**	235	235	135	200	135	200
Signal	**NBR**	50	50	35	0	35	0
	2x SBL	250	250	40	30	40	30
	SBR	50	270	**70**	20	35	20
	2x EBL	240	240	55	95	55	95
	EBR	50	50	**75**	20	**75**	20
	2x WBL	245	245	90	65	90	65
	WBR	175	175	10	0	10	0
10 . Clovis Avenue/Teague Avenue	**NBL**	200	225	195	140	195	140
Signal	**SBR**	50	50	**60**	20	**60**	20
	EBL	250	250	80	85	80	85
11 . Clovis Avenue/Nees Avenue	**NBL**	300	475	130	195	130	195
Signal	**NBR**	95	95	0	15	0	15
	SBL	260	260	130	90	130	90
	SBR	105	105	0	0	0	0
	EBL	230	230	85	100	85	100
	WBL	55	60	**80**	55	**80**	55
	WBR	60	60	**115**	25	**115**	25

Table 10-D - Existing Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Existing			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
12 . Clovis Avenue/Alluvial Avenue	**NBL**	230	420	185	200	185	200
Signal	**SBL**	235	215	180	120	180	120
	EBL	150	150	40	50	40	50
	EBR	105	110	85	**110**	80	110
	WBL	165	165	80	70	80	70
	WBR	105	105	45	35	45	35
13 . State Route 168 Westbound Ramps/Herndon Avenue	**SBL**	235	235	45	45	45	45
Signal	**SBR**[3]	280	445	**490**	190	**490**	190
	EBR	365	365	45	40	45	40
14 . State Route 168 Eastbound Ramps/Herndon Avenue	**NBL**	430	430	150	150	150	150
Signal	**NBR**	430	430	185	410	185	410
15 . Clovis Avenue/Herndon Avenue	**2x NBL**	200	200	175	**240**	175	**240**
Signal	**2x SBL**	230	230	135	195	135	195
	2x SBR	185	185	45	45	45	45
	2x EBL	240	350	195	**330**	195	330
	2x WBL	245	245	120	200	120	220
	WBR	150	150	135	115	135	115
19 . Fowler Avenue/Shepherd Avenue	**NBL**	150	285	**215**	**195**	195	135
Signal	**SBL**	200	200	**265**	180	165	125
	EBL	115	115	50	55	35	40
	WBL	260	260	80	95	55	70
	WBR	55	205	**350**	**105**	60	35

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

[1] Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

[2] All queues reported are 95th percentile queues. Queues for signalized intersections have been taken from Synchro and queues for stop controlled intersections have been taken from SimTraffic.

[3] Storage length based on signal coordinations mitigation with SR-168 Ramps.

Table 10-E - Near-Term (2026) Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Near Term Year (2026)			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
1 . Willow Avenue/International Avenue	**NBL**	240	300	**290**	125	275	125
Signal	**NBR**	155	155	10	20	10	20
	SBL	250	250	105	50	105	50
	SBR	205	205	30	0	5	0
	EBL	245	245	50	30	50	30
	EBR	235	235	25	75	25	75
	WBL	50	100	45	45	45	45
	WBR	20	20	0	0	0	0
2 . Willow Avenue/Behymer Avenue	**NBL**	250	250	185	235	185	235
Signal	**NBR**	105	105	0	0	0	0
	SBL	250	250	95	70	95	70
	SBR	200	200	5	5	5	5
	EBL	235	235	115	35	115	35
	WBL	90	210	50	85	50	85
3 . Willow Avenue/Shepherd Avenue	**2x NBL**	250	260	140	195	140	195
Signal	**NBR**	160	225	125	**450**	75	**370**
	2x SBL	250	280	180	235	180	235
	SBR	150	165	145	140	145	130
	2x EBL	230	230	90	175	90	175
	EBR	100	175	95	60	55	60
	WBL	250	280	215	250	215	250
	WBR	100	200	**190**	**220**	95	110
5 . Minnewawa Avenue/Behymer Avenue	**NBL**		150			15	10
Signal	**SBL**		250			65	40
6 . Minnewawa Avenue/Shepherd Avenue	**NBL**	230	230	**275**	**280**	**270**	**315**
Signal	**NBR**	105	105	40	85	20	55
	SBL	255	255	**310**	205	**290**	240
	SBR	25	25	**75**	**60**	**35**	5
	EBL	230	250	130	190	150	230
	EBR	50	50	**220**	**110**	**170**	**55**
	WBL	215	215	205	155	**225**	170
	WBR	60		**90**	**165**	0	0
9 . Clovis Avenue/Shepherd Avenue	**NBL**	235	235	170	**280**	170	**300**
Signal	**NBR**	50	50	**65**	**125**	**65**	**80**
	2x SBL	250	250	105	90	105	85
	SBR	50	270	**165**	**100**	50	50
	2x EBL	240	240	90	130	90	115
	EBR	50	50	**85**	**95**	**85**	**70**
	2x WBL	245	245	150	120	150	105
	WBR	175	175	55	85	55	60
10 . Clovis Avenue/Teague Avenue	**NBL**	200	225	200	140	200	140
Signal	**SBR**	50	50	**95**	30	**95**	30
	EBL	250	250	85	95	85	95
11 . Clovis Avenue/Nees Avenue	**NBL**	300	475	235	**500**	230	445
Signal	**NBR**	95	95	0	0	0	5
	SBL	260	260	130	90	95	75
	SBR	105	105	5	0	20	0
	EBL	230	230	90	105	65	90
	WBL	55	60	**125**	**90**	55	45
	WBR	60	60	**110**	5	**100**	10

Table 10-E - Near-Term (2026) Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Near Term Year (2026)			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
12 . Clovis Avenue/Alluvial Avenue	**NBL**	230	420	175	195	175	195
Signal	**SBL**	235	215	**240**	155	**240**	155
	EBL	150	150	40	50	40	50
	EBR	105	110	80	100	80	100
	WBL	165	165	80	70	80	70
	WBR	105	105	35	45	35	45
13 . State Route 168 Westbound Ramps/Herndon Avenue	**SBL**	235	235	45	50	40	55
Signal	**SBR**	280	445	**490**	190	375	190
	EBR	365	365	45	40	60	35
14 . State Route 168 Eastbound Ramps/Herndon Avenue	**NBL**	430	430	155	155	130	105
Signal	**NBR**	430	430	275	**670**	260	430
15 . Clovis Avenue/Herndon Avenue	**2x NBL**	200	200	185	**260**	160	**240**
Signal	**2x SBL**	230	230	155	220	145	**255**
	2x SBR	185	185	150	50	**205**	175
	2x EBL	240	350	**250**	**590**	225	**490**
	2x WBL	245	245	125	220	110	235
	WBR	150	150	**155**	**170**	45	80
18 . Sunnyside Avenue/Shepherd Avenue	**NBL**		250			160	250
Signal	**SBL**		250			40	45
	SBR		300			30	40
	EBL		250			75	175
	EBR		250			40	60
	WBL		250			55	115
	WBR		250			0	0
19 . Fowler Avenue/Shepherd Avenue	**NBL**	150	285	**290**	**425**	**295**	**335**
Signal	**SBL**	200	200	**265**	180	165	150
	EBL	115	115	70	90	20	65
	WBL	260	260	80	100	55	75
	WBR	55	205	**360**	**90**	60	30

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

[1] Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

[2] All queues reported are 95th percentile queues. Queues for signalized intersections have been taken from Synchro and queues for stop controlled intersections have been taken from SimTraffic.

Table 10-F - Cumulative (2046) Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Cumulative (2046)			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
1 . Willow Avenue/International Avenue	**NBL**	240	300	**410**	125	290	125
Signal	**NBR**	155	155	15	80	15	80
	SBL	250	250	115	115	115	115
	SBR	205	205	35	0	10	0
	EBL	245	245	55	30	55	30
	EBR	235	235	60	75	65	75
	WBL	50	100	**85**	45	85	45
	WBR	20	20	20	5	0	5
2 . Willow Avenue/Behymer Avenue	**NBL**	250	250	240	245	240	245
Signal	**NBR**	105	105	0	95	0	95
	SBL	250	250	110	115	110	115
	SBR	200	200	5	5	5	5
	EBL	235	235	120	35	120	35
	WBL	90	210	**155**	**210**	155	210
3 . Willow Avenue/Shepherd Avenue	**2x NBL**	250	260	**260**	200	**265**	200
Signal	**NBR**	160	225	**185**	**500**	125	**465**
	2x SBL	250	280	185	250	185	280
	SBR	150	165	**165**	150	165	135
	2x EBL	230	230	95	185	90	185
	EBR	100	175	**160**	**320**	120	**335**
	WBL	250	280	230	**270**	155	190
	WBR	100	200	**200**	**235**	90	175
4 . Minnewawa Avenue/International Avenue	**NBL**		300			290	145
Signal	**SBL**		200			0	0
5 . Minnewawa Avenue/Behymer Avenue	**SBL**		250			250	190
Signal	**EBL**		200			10	10
	WBL		200			45	20
	WBR		200			65	40
6 . Minnewawa Avenue/Shepherd Avenue	**NBL**	230	230	**335**	**530**	**390**	**520**
Signal	**NBR**	105	105	45	**115**	5	85
	SBL	255	255	**580**	215	**445**	**275**
	SBR	25	25	**85**	**65**	**65**	20
	EBL	230	250	135	195	205	250
	EBR	50	50	**385**	**175**	**210**	**190**
	WBL	215	215	210	155	**230**	215
	WBR	60		**95**	**175**	0	0
7 . Clovis Avenue/Behymer Avenue	**NBL**		225			175	220
Signal	**SBL**		255			195	255
	EBL		100			35	30
	EBR		200			30	25
	WBL		235			235	85
	WBR		250			50	45
8 . Clovis Avenue/Baron Avenue	**NBU**		50			**95**	50
Signal	**SBL**		105			45	105
	WBL		335			240	335

Table 10-F - Cumulative (2046) Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Cumulative (2046)			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
9 . Clovis Avenue/Shepherd Avenue	**NBL**	235	235	180	**320**	180	**335**
Signal	**NBR**	50	50	**80**	**400**	**80**	**255**
	2x SBL	250	250	110	95	110	90
	SBR	50	270	**270**	**105**	75	55
	2x EBL	240	240	90	135	90	115
	EBR	50	50	**180**	**115**	**180**	**80**
	2x WBL	245	245	205	185	205	205
	WBR	175	175	95	90	95	65
10 . Clovis Avenue/Teague Avenue	**NBL**	200	225	**230**	160	225	150
Signal	**SBR**	50	50	**150**	35	**160**	40
	EBL	250	250	90	145	90	145
11 . Clovis Avenue/Nees Avenue	**NBL**	300	475	245	**540**	240	475
Signal	**NBR**	95	95	0	0	0	5
	SBL	260	260	190	180	165	180
	SBR	105	105	95	0	65	0
	EBL	230	230	130	165	95	170
	WBL	55	60	**130**	**105**	60	60
	WBR	60	60	**195**	**325**	**145**	**270**
12 . Clovis Avenue/Alluvial Avenue	**NBL**	230	420	**445**	**405**	**455**	405
Signal	**SBL**	235	215	**255**	175	**255**	175
	EBL	150	150	40	50	40	50
	EBR	105	110	105	105	105	105
	WBL	165	165	80	70	80	70
	WBR	105	105	40	50	60	50
13 . State Route 168 Westbound Ramps/Herndon Avenue	**SBL**	235	235	50	50	45	55
Signal	**SBR**	280	445	**575**	225	445	240
	EBR	365	365	50	45	65	40
14 . State Route 168 Eastbound Ramps/Herndon Avenue	**NBL**	430	430	155	240	135	155
Signal	**NBR**	430	430	320	**710**	295	425
15 . Clovis Avenue/Herndon Avenue	**2x NBL**	200	200	**260**	**445**	**225**	**350**
Signal	**2x SBL**	230	230	160	225	140	**270**
	2x SBR	185	185	**230**	60	**310**	**205**
	2x EBL	240	350	**290**	**620**	300	**485**
	2x WBL	245	245	150	225	135	230
	WBR	150	150	**165**	**200**	85	125
18 . Sunnyside Avenue/Shepherd Avenue	**NBL**		250			155	**270**
Signal	**SBL**		300			**360**	275
	SBR		300			255	270
	EBL		265			265	**550**
	EBR		250			50	40
	WBL		250			60	95
	WBR		250			0	195

Table 10-F - Cumulative (2046) Plus Project with Improvements Queuing Analysis

Intersection	Movement	Without Project Storage Length[1] (ft/ln)	Plus Project Recommended Storage Length[1] (ft/ln)	Cumulative (2046)			
				Plus Project [2]		Plus Project with Improvements[2]	
				AM	PM	AM	PM
19 . Fowler Avenue/Shepherd Avenue	**NBL**	150	285	**300**	**545**	**305**	**420**
Signal	**SBL**	200	200	**565**	**230**	**330**	**230**
	EBL	115	115	100	105	70	80
	WBL	260	260	130	130	90	95
	WBR	55	205	**400**	**265**	65	100

Notes:

ft/ln = feet per lane

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; R = Right

Bold = Queue exceeds available storage.

[1] Storage length for all movements obtained from Google Earth measurements and conceptual site plan.

[2] All queues reported are 95th percentile queues. Queues for signalized intersections have been taken from Synchro and queues for stop controlled intersections have been taken from SimTraffic.

11.0 SITE DISTANCE ANALYSIS AND SAFE ROUTES TO SCHOOL ANALYSIS

As discussed previously and shown on Figure 1-2, access to the project will be provided by six driveways: two on Baron Avenue, two on Hammel Avenue, and one on Perrin Avenue. All driveways will operate as full-access driveways.

11.1 SIGHT DISTANCE ANALYSIS

A sight distance analysis was conducted at the project driveways along Baron Avenue and future intersection of Baron Avenue/Perrin Road. Sight distance is the length of the visible roadway a driver can see approaching vehicles before their line of sight is blocked by any object. For purposes of this analysis, only the stopping sight distance and corner sight distance have been evaluated.

According to the Caltrans *Highway Design Manual* (HDM) (dated July 2020), the stopping sight distance is the minimum sight distance along a roadway required to allow a driver to decrease their speed from the design speed to a complete stop. The corner sight distance is the minimum sight distance in which a driver at a stop-controlled approach can see oncoming traffic on the major street to safely maneuver onto the roadway.

The stopping sight distance was evaluated on the roadways along the project frontage, including future intersection of Baron Avenue/Perrin Road. For purposes of this analysis, the posted speed limit of 35 mph has been considered as the design speed for Baron Avenue. As stated in Table 201.1 of the HDM, the minimum stopping sight distance is 250 feet for a design speed of 35 mph. Therefore, the minimum stopping sight distance for all project driveways have been considered to be 250 feet.

As for corner sight distance, Section 405.1 of the HDM states that corner sight distance requirements are not applicable for urban driveways unless signalized. At signalized driveways, the minimum corner sight distance was based on design speed, time gap, and type of vehicle for the minor road vehicle to enter the major road. Based on these design speeds and the requirements established in the HDM, it was determined that minimum corner sight distances of the project driveways and future intersection are as follows:

- **Baron Avenue/Project Driveway 4:** 390 feet
- **Baron Avenue/Project Driveway 5:** 390 feet
- **Baron Avenue/Project Driveway 6:** 390 feet
- **Baron Avenue/Perrin Avenue:** 390 feet

11.2 SAFE ROUTES TO SCHOOL

The project will be under the jurisdiction of the Clovis Unified School District (CUSD). The CUSD provides transportation for students who live in excess of an established radius zone. The zones are a radius of 1.00 mile for grades Kindergarten through 6th and 2.50 miles for grades 7th through 12th.

Based on the current CUSD maps and school district boundaries, elementary school students residing in the project will be attending the Riverview Elementary School, located at the southeast corner of Chestnut Avenue and Behymer Avenue. The distance between the elementary school and the project is approximately 2.0 miles. As such, the project is not within the school's walking radius area. As such, CUSD will provide transportation for the elementary school students. Additionally, some elementary school students from the project will be accessing the elementary school by cars. Therefore, no safety improvements may be required for the elementary school students.

It should be noted that the project is within the vicinity of the proposed Heritage Grove Specific Plan project. Based on the project description of the Specific Plan, an elementary school is being proposed within Planning Area 9 of the Specific Plan. Though the completion date for this elementary school is still undetermined, elementary school students from the project are anticipated to attend this school once completed. This new school will be within close proximity of the project site. The Heritage Grove Specific Plan project will also be constructing sidewalks and bike lanes as part of internal circulation network to provide safe route for walking and biking to school. As such, no further safety improvements may be required for the elementary school students upon construction of this elementary school.

The project is currently within the district boundaries of Granite Ridge Intermediate School, and Clovis North High School. Both these schools are located at the northwest corner of the intersection of Willow Avenue/International Avenue. The distance between these schools and the project is approximately 2.5 miles. However, the project is included within the schools' walking radius area. As such, CUSD may not provide transportation for the intermediate and high school students, and they might be accessing the school by walk, bike or car.

The most direct route to these schools from the project would be walking northwards to Behymer Avenue, westwards to Willow Avenue and northwards towards International Avenue. An alternative route could be walking westward along Behymer Avenue, northward along Minnewawa Avenue, and westward along International Avenue.

Currently, there is no sidewalk present along Behymer Avenue between Willow Avenue and Baron Avenue, along Minnewawa Avenue between International Avenue and Behymer Avenue or along International Avenue between Willow Avenue and Minnewawa Avenue. Similarly, there's no bike facility present along these roadway segments. As included in Table 9-E, several of these segments would require improvements that would include addition of sidewalks and/or bike lanes along those facilities. The project would be paying its fair share for implementation of these improvements. However, no improvements have been identified as part of this traffic study for the segment along International Avenue between Willow Avenue and Minnewawa Avenue, and the segment along Behymer Avenue between Willow Avenue and Minnewawa Avenue. Therefore, the City might want

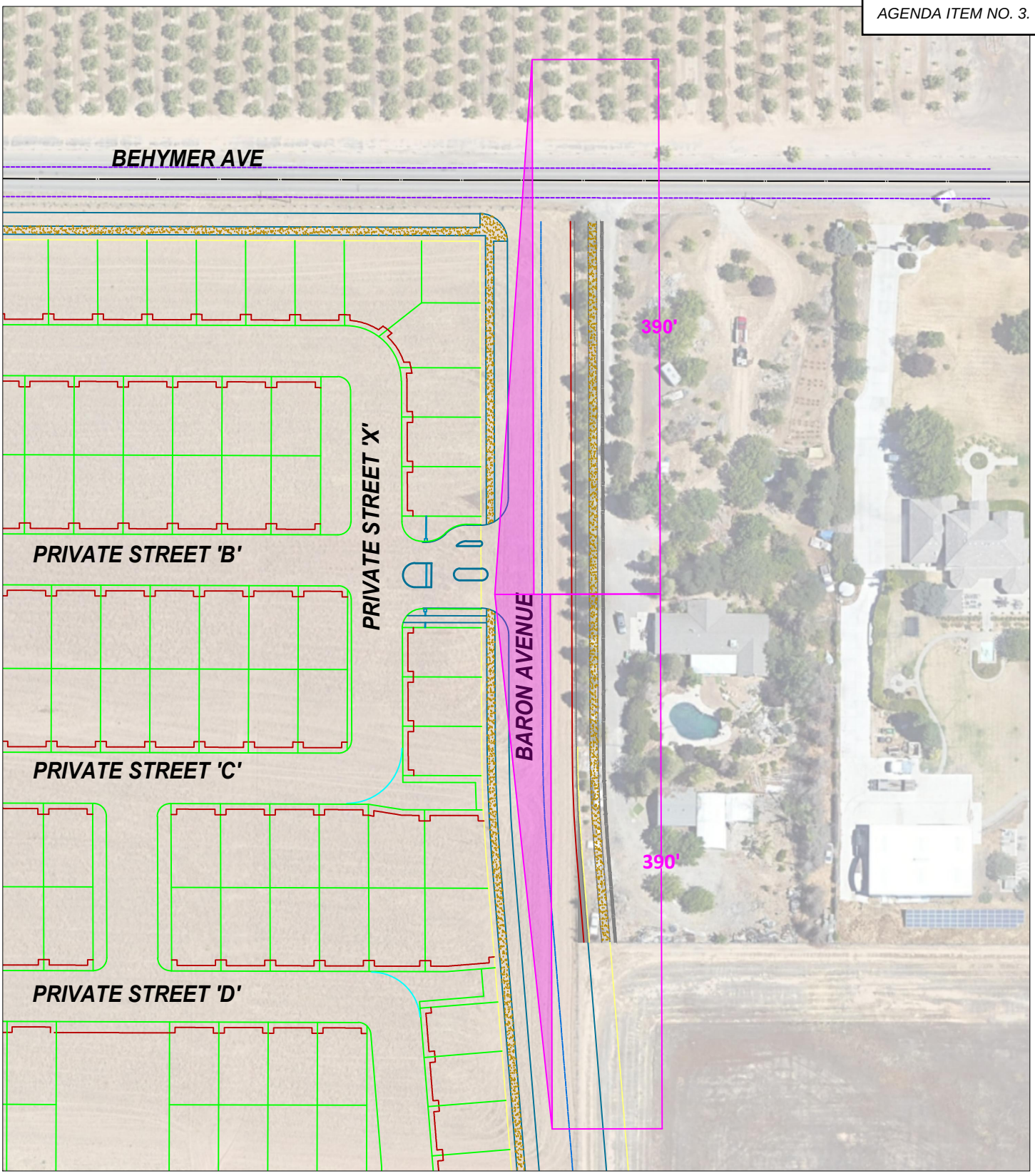
to prioritize installing sidewalks and bike facilities along these corridors to provide a continuous safe walking/biking access corridor to the intermediate school and high school.

Additionally, CUSD does have a provision to provide transportation to communities within the walking radius if the community can raise sufficient funds to pay for the cost of operation. As such, if the project residents decide to fund such a program, transportation would be provided between the project and these schools.

As such, though no further safety improvements may be necessary for the elementary school access, for providing a safe access to the intermediate and high schools would require further evaluation.

11.3 LIST OF CHAPTER 11.0 FIGURES

- Figure 11-1: Sight Distance Analysis at Baron Avenue/Project Driveway 4
- Figure 11-2: Sight Distance Analysis at Baron Avenue/Project Driveway 5
- Figure 11-3: Sight Distance Analysis at Baron Avenue/Project Driveway 6
- Figure 11-4: Sight Distance Analysis at Baron Avenue/Perrin Avenue



LSA

FIGURE 11-1

LEGEND

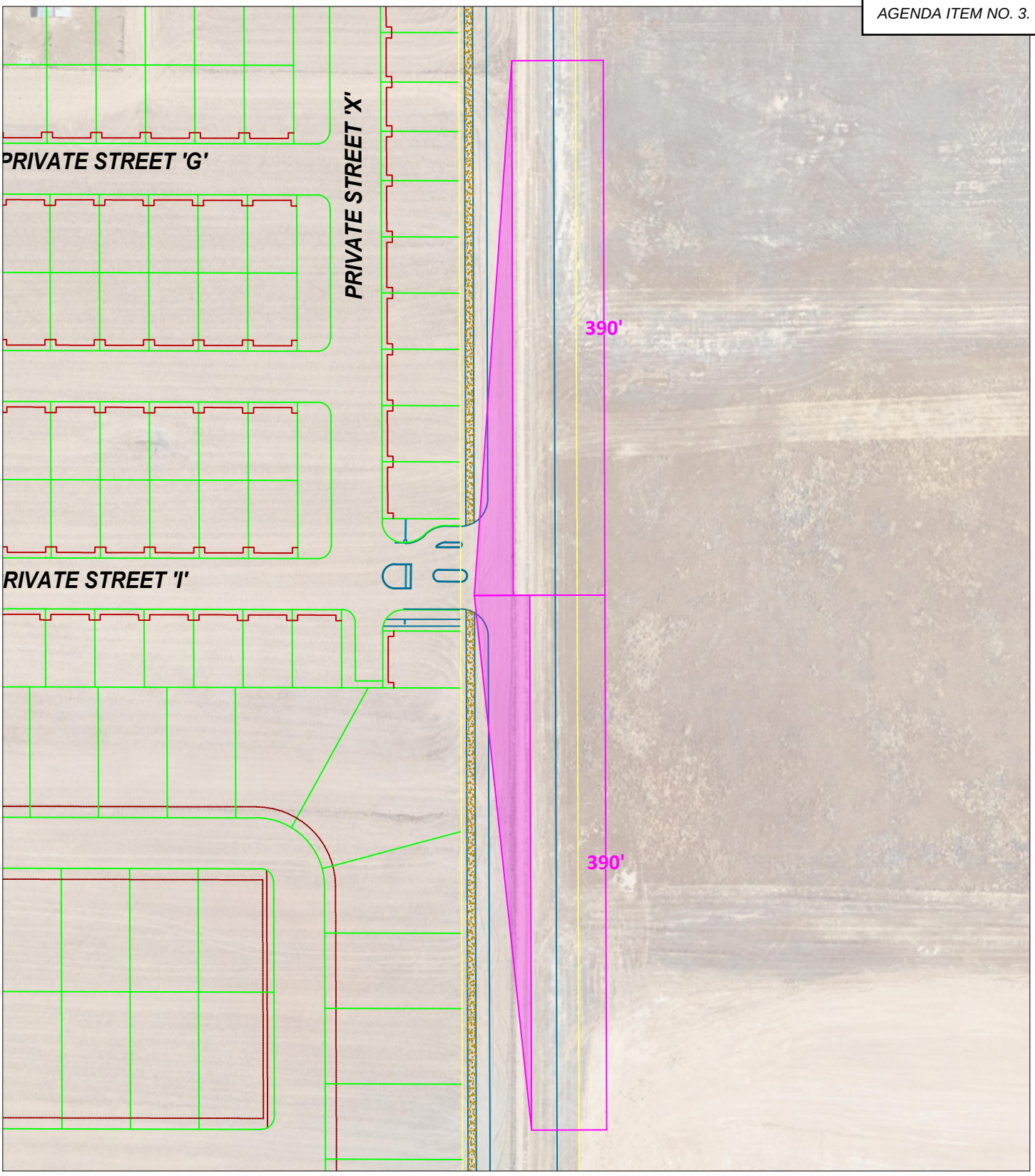
Sight Distance Triangle

N

Tract Map 6343 Project
Transportation Impact Analysis

SOURCE: Google Earth, 2018.
I:\CIT2201-RIV\Reports\Striping&ISD.dwg (2/22/2023)

Sight Distance Analysis at Baron Avenue/Project Drive



LSA

FIGURE 11-2

LEGEND

Sight Distance Triangle

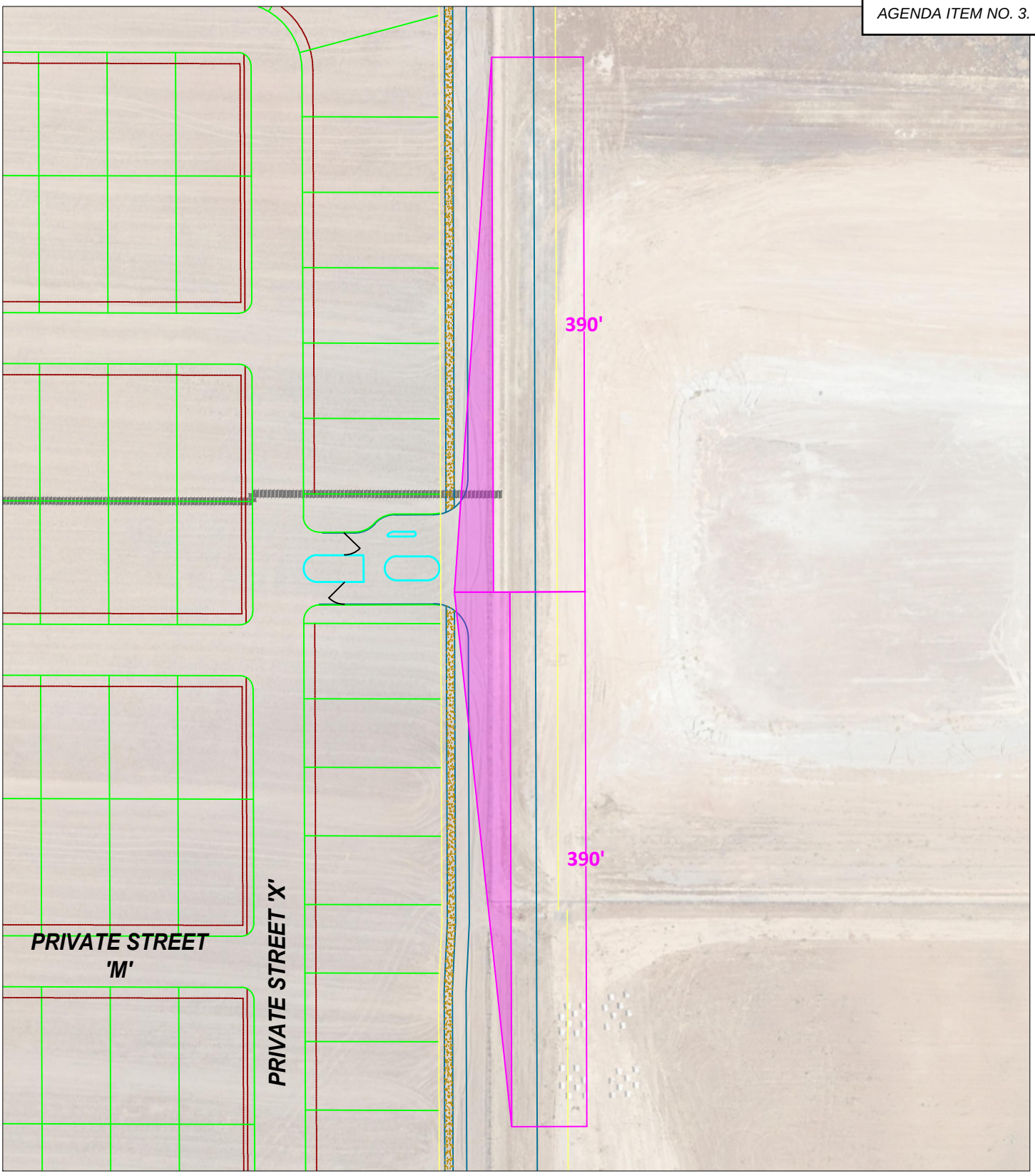
N

SOURCE: Google Earth, 2018.

I:\CIT2201-RIV\Reports\Striping&ISD.dwg (2/22/2023)

Tract Map 6343 Project
Transportation Impact Analysis

Sight Distance Analysis at Baron Avenue/Project Drive



LSA

FIGURE 11-3

LEGEND

Sight Distance Triangle

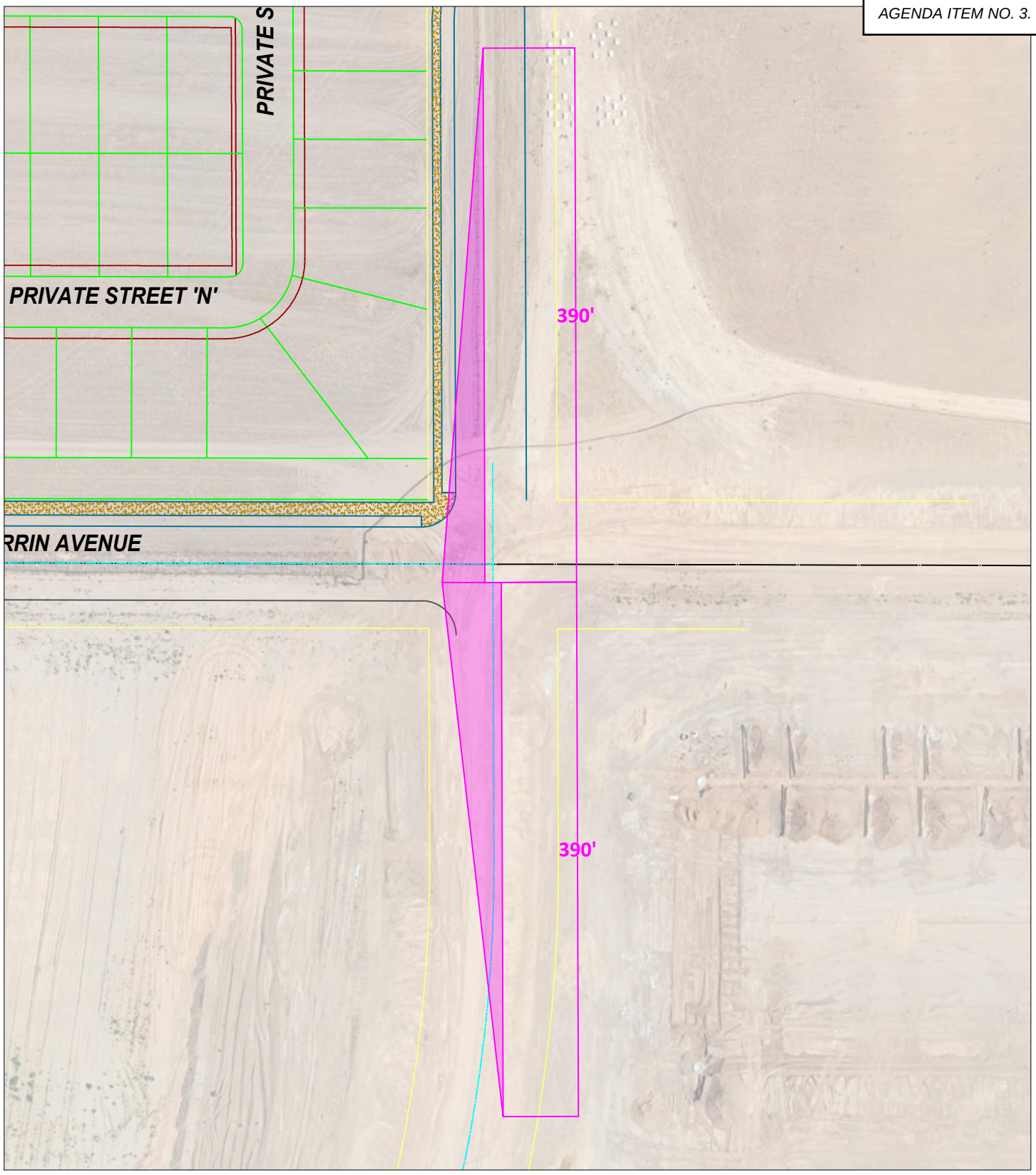
N

Tract Map 6343 Project
Transportation Impact Analysis

Sight Distance Analysis at Baron Avenue/Project Drive

SOURCE: Google Earth, 2018.

I:\CIT2201-RIV\Reports\Striping&ISD.dwg (2/22/2023)



LSA

FIGURE 11-4

LEGEND

Sight Distance Triangle

N

Tract Map 6343 Project
Transportation Impact Analysis

Sight Distance Analysis at Baron Avenue/Perrin

SOURCE: Google Earth, 2018.
I:\CIT2201-RIV\Reports\Striping&ISD.dwg (2/22/2023)

12.0 CALTRANS FREEWAY QUEUING ANALYSIS

As recommended by the Caltrans staff during the scoping agreement process, a freeway queuing analysis has been conducted at all Caltrans facilities at which project traffic gets added. Since the project is estimated to add traffic at the Herndon Avenue and Fowler Avenue interchanges, a freeway queuing analysis was performed at the off-ramps at these interchanges.

12.1 FREEWAY QUEUING ANALYSIS

A freeway queuing analysis was performed to examine safety impacts at the Herndon Avenue and Fowler Avenue interchange off-ramps. The queuing analysis will review the speed differential between the off-ramp queue and mainline traffic during the peak hours. If the speed differential exceeds the significance thresholds as outlined in the *Safety Review Practitioners Guidance* (30 mph), traffic safety improvements will need to be identified to offset operational deficiencies on traffic safety, if any.

Table 12-A summarizes the off-ramp speed differential between the SR-168 mainline and the off-ramps at the Herndon Avenue and Fowler Avenue interchanges. The ramp and mainline speeds were calculated using the Highway Capacity Software (i.e., HCS 7). As summarized in Table 12-A, the speed differential between the freeway mainlines and off-ramps for both interchanges are less than 30 mph except for the diverge segment at the SR-168 westbound Herndon Avenue Off-Ramp. As such, no safety improvements may be necessary at all other locations.

The diverge segment at the SR-168 westbound Herndon Avenue Off-Ramp is forecast to operate at an unsatisfactory condition (LOS F) during p.m. peak hours under existing, near-term (2026) and cumulative (2046) conditions. Therefore, HCS 7 results may be unreliable for that diverge segment. However, since the segment is performing at LOS F, it could be estimated that the facility is being heavily congested, and a speed differential between the off-ramp queue and mainline traffic would potentially be much lower than the Caltrans significance threshold of 30 mph. However, improvements would be required at this off-ramp location to improve traffic operations in the freeway mainline. Since the project has no direct control of implementing improvements at a Caltrans facility, the deficiency at this location would remain significant and unavoidable.

It should be noted that as shown in Tables 8-A, 8-C, and 8-E, the intersections of SR- 168 Westbound Ramps/Herndon Avenue, and SR- 168 Eastbound Ramps/Herndon Avenue are forecast to operate at a satisfactory LOS under all scenarios. However, as shown in Tables 10-B and 10-C, both the ramp intersections are projected to have queuing deficiencies under future conditions (Near-term and cumulative scenarios). Additionally, the adjacent intersection of Clovis Avenue/Herndon Avenue is forecast to operate at an unsatisfactory LOS under Near-term, and cumulative scenarios, which may further deteriorate the ramp performance due to proximity of this intersection to the freeway ramps. Therefore, an evaluation of these intersections using signal timing coordination and optimization was performed under near-term and cumulative scenario. As shown in Tables 9-C, and 9-D, the intersection of Clovis Avenue/Herndon Avenue is forecast to operate at a satisfactory LOS along with the ramp intersections under Near-term, and cumulative scenarios with implementation of this improvement. Further, as shown in Tables 10-E and 10-F, and discussed in chapter 10.0 of

this report, this also helps eliminate the queuing issues at the ramp intersections along with additional storage length improvement proposed to the SR- 168 Westbound Ramps at Herndon Avenue.

Detailed HCS worksheets are included in Appendix H.

12.2 LIST OF CHAPTER 12.0 TABLES

- Table 12-A: Caltrans Off-Ramp Speed Differential

Table 12-A - Caltrans Off-Ramp Speed Differential

SR-168	Without Project								Plus Project							
	AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
	Freeway Speed (mi/hr)	Ramp Speed (mi/hr)	Speed Difference (mi/hr)	Safety Impact	Freeway Speed (mi/hr)	Ramp Speed (mi/hr)	Speed Difference (mi/hr)	Safety Impact	Freeway Speed (mi/hr)	Ramp Speed (mi/hr)	Speed Difference (mi/hr)	Safety Impact	Freeway Speed (mi/hr)	Ramp Speed (mi/hr)	Speed Difference (mi/hr)	Safety Impact
Existing (2022)																
1 . EB: Herndon Avenue Off-Ramp	62.6	58.0	4.6	No	64.5	57.3	7.2	No	62.5	57.9	4.6	No	64.1	57.0	7.1	No
2 . WB: Herndon Avenue Off-Ramp	58.5	58.5	0.0	No	--	--	--	--	58.5	58.5	0.0	No	--	--	--	--
Near Term (2026)																
1 . EB: Herndon Avenue Off-Ramp	62.2	57.7	4.5	No	63.5	56.5	7.0	No	62.2	57.6	4.6	No	63.1	56.2	6.9	No
2 . WB: Herndon Avenue Off-Ramp	58.5	58.5	0.0	No	--	--	--	--	58.5	58.5	0.0	No	--	--	--	--
Cumulative (2046)																
1 . EB: Herndon Avenue Off-Ramp	62.0	57.5	4.5	No	62.2	55.5	6.7	No	61.8	57.4	4.4	No	61.9	55.3	6.6	No
2 . WB: Herndon Avenue Off-Ramp	58.3	58.3	0.0	No	--	--	--	--	58.3	58.3	0.0	No	--	--	--	--

Notes:

mi/hr : miles per hour

pc/mi/ln: passanger cars per mile per lane

-- indicates deficient LOS due to high congestion.

13.0 SUMMARY AND CONCLUSIONS

The proposed project will consist of 590 single-family homes on approximately 71.54 acres of the site. The remaining 174.46 acres of the site will be used for future developments. It is anticipated that the project buildout will occur in year 2026. Access to the project will be provided by six full-access driveways: three on Baron Avenue, two on Hammel Avenue, and one on Perrin Avenue.

13.1 VEHICLE MILES TRAVELED ANALYSIS SUMMARY

The project VMT per capita is 26.4 percent higher than the City's VMT per capita threshold. Therefore, based on the TIA Guidelines, the project will have a significant VMT impact. The project will implement applicable mitigation measures in consultation with the City staff. It is estimated that the project could achieve approximately 4.24 percent VMT reduction from various mitigation measures.

13.2 EXISTING CONDITIONS SUMMARY

All study intersections and roadway segments operate at a satisfactory LOS under existing without and with project conditions with the exception of 4 intersections.

13.3 NEAR-TERM (2026) CONDITIONS SUMMARY

All intersections and roadway segments are forecast to operate at a satisfactory LOS under near-term (2026) plus project conditions with the exception of 8 intersections and 3 roadway segments.

13.4 CUMULATIVE (2046) CONDITIONS SUMMARY

All intersections and roadway segments are forecast to operate at a satisfactory LOS under cumulative (2046) plus project conditions with the exception of 14 intersections and 8 roadway segments.

13.5 IMPROVEMENTS SUMMARY

Based on the improvements discussed in Section 9.1, Recommended Improvements, of this report, all intersections and roadway segments are estimated to operate satisfactorily. Several of the improvements are included in the City's DIF program. For the remaining improvements, the project will pay fair share percentages.

13.6 QUEUEING ANALYSIS SUMMARY

The recommended storage lengths have been proposed at intersections based on the availability of right-of-way and 95th percentile back-of-queue lengths at the study intersections. Additionally, a signal timing coordination and optimization has been proposed at the SR-168 Ramps and the adjacent intersection to alleviate LOS and queuing issues at this location.

13.7 SIGHT DISTANCE ANALYSIS SUMMARY

A sight distance analysis was conducted at the project driveways. Based on the sight distance analysis, the proposed project driveways achieve adequate sight distances and have clear sight triangles for the drivers.

13.8 SAFE ROUTES TO SCHOOL ANALYSIS SUMMARY

The project is approximately 2.0 miles from the elementary school and it is estimated that CUSD will provide for student transportation for elementary school students. The project is within the walking boundary of the Granite Ridge Intermediate School and Clovis North High School. The City may want to prioritize installing sidewalks and bike lanes on International Avenue, Behymer Avenue, and Minnewawa Avenue to provide a safe walking/biking route for safer access to these schools.

13.9 FREEWAY QUEUING ANALYSIS SUMMARY

The speed differential between the off-ramp and the mainline is less than 30 mph for all scenarios except for the diverge segment for the off-ramp at the Herndon Avenue Interchange. Since the project has no direct control of implementing improvements at a Caltrans facility, the deficiency at this location would remain significant and unavoidable.

APPENDIX A

SCOPING AGREEMENT

LSA

CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

July 1, 2022

Mr. Sean K. Smith
Supervising Civil Engineer
Engineering Division, City of Clovis
1033 Fifth Street
Clovis, California 93612

Subject: Scope of Work for the Tract Map 6343 Project Transportation Impact Analysis (LSA Project No. CIT2201)

Dear Sean:

LSA will be preparing a Transportation Impact Analysis (TIA) for the Tract Map 6343 Project (project) in the City of Clovis (City) in Fresno County (County). The project site is located within the Northwest Urban Center area in the City's General Plan, now known as Heritage Grove. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the south and the west, and by agricultural fields to the east. The project site is currently vacant. Figure 1 (all figures, tables, and appendices attached) illustrates the regional and project location.

The proposed project would include annexation of 246 acres from Fresno County by the City of Clovis. It would also consist of developing 71.54 acres of this annexation area into a 590-lot single-family residential development. No other development has been proposed for the remaining 174.46-acre annexation area. Any future development occurring within the annexation area would require a separate project-specific analysis. Figure 2 illustrates the tentative subdivision map for the residential development in the project. Access to the project site will be provided via six driveways:

- Three gated ingress and egress driveways along the southern extension of Baron Avenue;
- Two gated ingress and egress driveways along Hammel Avenue, including one along the northern extension of Hammel Avenue; and
- One gated ingress and egress driveway along Perrin Avenue.

All driveways have been considered as full-access driveways for purposes of this analysis. The project will also include an emergency access driveway on Perrin Avenue.

Construction of the proposed project is expected to occur in three phases over a period of 33 months starting in March 2023. The first phase of the project would include development of 136 single-family residential units, the second phase would include development of 213 single-family residential units, while the third phase would include development of 241 single-family residential units. However, for purposes of this analysis, the full build-out of the project has been considered. As such, LSA anticipates that the following scope of work will be required to prepare the TIA for the proposed project.

SCOPE OF WORK

LOCAL TRANSPORTATION ANALYSIS

Study Area Intersections

While Level of Service (LOS) analysis is no longer a determinant of California Environmental Quality Act (CEQA) impacts, consistency with the City's General Plan goals and policies is still required. Therefore, a Local Transportation Analysis (LTA) will be prepared to satisfy the requirements established by the City of Clovis *Interim Transportation Impact Analysis Guidelines* (TIA Guidelines), dated July 14, 2020, and requirements established by the California Department of Transportation (Caltrans). As such, traffic operations at all study intersections will be analyzed during the weekday a.m. and p.m. peak hours. The a.m. peak hour is defined as the one hour period of the highest traffic volume occurring between 7:00 and 9:00 a.m. while the p.m. peak hour is defined as the one hour period of the highest traffic volume occurring between 4:00 and 6:00 p.m. Intersection LOS will be calculated using the *Highway Capacity Manual* 6th Edition (HCM 6) analysis methodologies and by using the Synchro 11 software.

As per the City's TIA guidelines, the extent of the study area should include the following:

- Pedestrian, bicycle, and transit facilities within a half-mile distance from the project site boundary;
- All intersections of major streets that would provide direct access to the project;
- All signalized intersections within one-half mile of the project site boundary where the project would add 50 or more peak hour trips, and signalized intersections beyond one-half mile where the project would add 100 or more peak hour trips; and
- All unsignalized intersections within a half-mile of the project site boundary where the project would add more than 50 peak hour trips.

As such, the TIA will examine the following intersections:

1. Willow Avenue/International Avenue (City of Clovis/City of Fresno);
2. Willow Avenue/Behymer Avenue (City of Clovis/City of Fresno);
3. Willow Avenue/Shepherd Avenue (City of Clovis/City of Fresno);
4. Minnewawa Avenue/International Avenue (City of Clovis);
5. Minnewawa Avenue/Behymer Avenue (City of Clovis);
6. Minnewawa Avenue/Shepherd Avenue (City of Clovis);
7. Clovis Avenue/Behymer Avenue (City of Clovis);
8. Clovis Avenue/Baron Avenue (City of Clovis);
9. Clovis Avenue/Shepherd Avenue (City of Clovis);
10. Clovis Avenue/Teague Avenue (City of Clovis);

11. Clovis Avenue/Nees Avenue (City of Clovis);
12. Clovis Avenue/Alluvial Avenue (City of Clovis);
13. State Route 168 Westbound Ramps/Herndon Avenue (Caltrans);
14. State Route 168 Eastbound Ramps/Herndon Avenue (Caltrans);
15. Clovis Avenue/Herndon Avenue (City of Clovis);
16. Baron Avenue/Behymer Avenue (City of Clovis);
17. Baron Avenue/Perrin Avenue (City of Clovis);
18. Sunnyside Avenue/Shepherd Avenue (City of Clovis);
19. Fowler Avenue/Shepherd Avenue (City of Clovis);
20. Hammel Avenue/Project Driveway 1 (City of Clovis);
21. Hammel Avenue/Project Driveway 2 (City of Clovis);
22. Project Driveway 3/Perrin Avenue (City of Clovis);
23. Baron Avenue/Project Driveway 4 (City of Clovis);
24. Baron Avenue/Project Driveway 5 (City of Clovis); and
25. Baron Avenue/Project Driveway 6 (City of Clovis).

Figure 3 illustrates the study area intersections.

Roadway Segments

In addition to the study area intersections, the TIA will examine traffic operations at the following roadway segments:

1. International Avenue, between Willow Avenue and Minnewawa Avenue (City of Clovis);
2. Behymer Avenue, between Willow Avenue and Minnewawa Avenue (City of Clovis);
3. Behymer Avenue, between Minnewawa Avenue and Clovis Avenue (City of Clovis);
4. Behymer Avenue, between Clovis Avenue and Baron Avenue (City of Clovis);
5. Shepherd Avenue, between Willow Avenue and Minnewawa Avenue (City of Clovis);
6. Shepherd Avenue, between Minnewawa Avenue and Clovis Avenue (City of Clovis);
7. Shepherd Avenue, between Clovis Avenue and Sunnyside Avenue (City of Clovis);
8. Shepherd Avenue, between Sunnyside Avenue and Fowler Avenue (City of Clovis);
9. Herndon Avenue, between State Route 168 Eastbound Ramps and Clovis Avenue (City of Clovis);

10. Willow Avenue, between International Avenue and Behymer Avenue (City of Clovis/City of Fresno);
11. Willow Avenue, between Behymer Avenue and Shepherd Avenue (City of Clovis/City of Fresno);
12. Minnewawa Avenue, between International Avenue and Behymer Avenue (City of Clovis);
13. Minnewawa Avenue, between Behymer Avenue and Shepherd Avenue (City of Clovis);
14. Clovis Avenue, between Behymer Avenue and Perrin Avenue (City of Clovis);
15. Clovis Avenue, between Perrin Avenue and Baron Avenue (City of Clovis);
16. Clovis Avenue, between Baron Avenue and Shepherd Avenue (City of Clovis);
17. Clovis Avenue, between Shepherd Avenue and Teague Avenue (City of Clovis);
18. Clovis Avenue, between Teague Avenue and Nees Avenue (City of Clovis);
19. Clovis Avenue, between Nees Avenue and Alluvial Avenue (City of Clovis); and
20. Clovis Avenue, between Alluvial Avenue and Herndon Avenue (City of Clovis).

As recommended in the City's TIA guidelines, daily traffic operations at roadway segments will be analyzed based on the peak hour level of service volume thresholds obtained from Chapter 5.16, *Transportation and Traffic,* of the City's *General Plan and Development Code Update Draft Program Environmental Impact Report,* dated June 2014.

Project Trip Generation, Trip Distribution, and Trip Assignment

The trip generation for the proposed project was developed using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) for Land Uses 210 - "Single-Family Detached Housing." The project trip generation is summarized in Table A. The project is anticipated to generate 5,564 total daily trips, with 413 trips occurring during the a.m. peak hour and 555 trips occurring during the p.m. peak hour.

The project trip distribution patterns were derived from the select zone model run obtained from the Fresno Council of Governments' (COG's) Activity-Based Model (ABM). The select zone model plot is included in Appendix A. Figure 4 illustrates the project trip distribution. The project trip assignment at the study area intersections is the product of the project trip generation and the corresponding trip distribution percentages. Figure 5 illustrates the project trip assignment at the study area intersections.

Analysis Scenarios

The TIA will be prepared based on consultation with City staff and Caltrans to meet the requirements of both the City and Caltrans. The TIA will examine traffic operations at the study area intersections and roadway segments under the following scenarios:

- Existing Conditions;

- Existing Plus Project Conditions;
- Near-Term Plus Project Conditions;
- Cumulative Year without Project Conditions; and
- Cumulative Year Plus Project Conditions.

Volume Development and Analysis Methodology

Traffic volumes for existing conditions are typically developed using existing count data collected at study area intersections and roadway segments. Despite the ongoing COVID-19 pandemic, LSA anticipates that at present, traffic is operating near or at pre-pandemic levels, and therefore, adjustments to traffic counts will not be required. However, in case City staff requires adjustments to existing traffic counts, appropriate adjustments will be made by obtaining historical counts at study area intersections and roadway segments.

Traffic volumes under near-term plus project conditions will be developed by adding traffic volumes from approved and pending projects located near the study area and project traffic to existing traffic volumes. LSA will contact City staff and adjacent jurisdictions for a list of cumulative projects.

Traffic volumes for cumulative year without project conditions will be developed by using forecast volumes obtained from the Fresno COG ABM. The methodology to develop cumulative year without project traffic volumes at study area intersections and roadway segments will be consistent with the COG's procedures for post-processing of modeled traffic volumes. The resulting intersection and roadway segment LOS will be calculated using the previously discussed methodologies.

Existing and cumulative year plus project traffic volumes will be developed by adding project traffic to the traffic volumes for the corresponding without project scenarios.

Intersection Queuing Analysis

An intersection queuing analysis will be performed at all study intersections. The queuing analysis will be performed using Synchro for signalized intersections and using SimTraffic for unsignalized intersections.

Caltrans Ramp Queuing Analysis

As requested by Caltrans staff, a ramp queuing analysis will be performed at the SR-168/Herndon Avenue interchange to identify potential traffic safety impacts. The evaluation of safety impacts will include a review for speed differential between the exit ramps queue and the mainline of SR-168 during the same peak hour study period. The analysis will be performed as per the Caltrans *Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance*, dated July 2020.

Site Access and Circulation Analysis

A site access and circulation analysis will be conducted as per the criteria stated in the City's TIA guidelines. The following issues will be evaluated as part of this analysis:

- Anticipated queues and minimum required throat depth (MRTD) at all project access locations;
- A sight distance analysis at the project driveways including recommended improvements in cases of unsafe traffic conditions; and
- Safety of potential pedestrian paths of travels from the project site to schools, commercial areas, and nearby bus stops.

Analysis of Traffic Operations and Recommended Circulation Improvements

Levels of service without the project will be compared with levels of service plus the project for all analysis scenarios to determine operational deficiencies based on the LOS standards and operational deficiency criteria as applicable for the City and Caltrans. Furthermore, necessary improvements will be recommended to offset any operational deficiencies. Improvements may include addition of intersection turn lanes, segment lane additions, signalization, etc. The LOS with the proposed improvements will be calculated and summarized, along with a comparison of the LOS without improvements.

Signal Warrant Analysis (if Required)

A signal warrant analysis would be conducted at unsignalized intersections if a signal is recommended as an improvement. Peak hour approach volumes for study intersections will be examined to determine whether signalization may be warranted per the criteria defined in the California supplement of the *Manual on Uniform Traffic Control Devices* (CA-MUTCD).

Fair-Share Contributions (if Required)

A fair share percentage will be calculated for study area intersection and roadway segment improvements recommended in the TIA that are not included in the Measure C program, the City's Development Fee program, or any other funding program. The percentage of fair share for the project will be calculated at each location using the total trips generated by the project divided by the total "new" traffic, which is the net increase in traffic volumes from existing to cumulative year conditions.

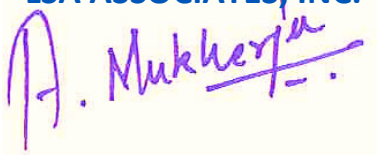
PROJECT VEHICLE MILES TRAVELED ANALYSIS

The TIA will include a Vehicle Miles Traveled (VMT) analysis to meet CEQA requirements. The project VMT analysis will be prepared consistent with the City's TIA Guidelines. As per the City's TIA Guidelines, the project cannot be considered as a small project given that the project exceeds 53 dwelling units. Therefore, a full VMT analysis will be required for the project. For purposes of this analysis, the project-generated VMT per capita will be obtained from the Fresno COG ABM. As per the City's TIA Guidelines, a significant project-generated VMT impact would occur if the project's VMT per capita exceeds a level of 13 percent below the existing County average VMT per capita provided in the guidelines. In case of a significant VMT impact, appropriate mitigation measures will be recommended based on discussion with City staff.

Should you have any questions, please do not hesitate to contact me at (951) 781-9310 or email me at Ambarish.Mukherjee@lsa.net.

Sincerely,

LSA ASSOCIATES, INC.



Ambarish Mukherjee, AICP, PE
Principal

ATTACHMENTS

Table A: Project Trip Generation
Figure 1: Regional and Project Location
Figure 2: Tentative Subdivision Map
Figure 3: Study Area Intersections
Figure 4: Project Trip Distribution
Figure 5: Project Trip Assignment
Appendix A: Fresno COG ABM Select Zone Model Plots

TABLES

Table A - Project Trip Generation

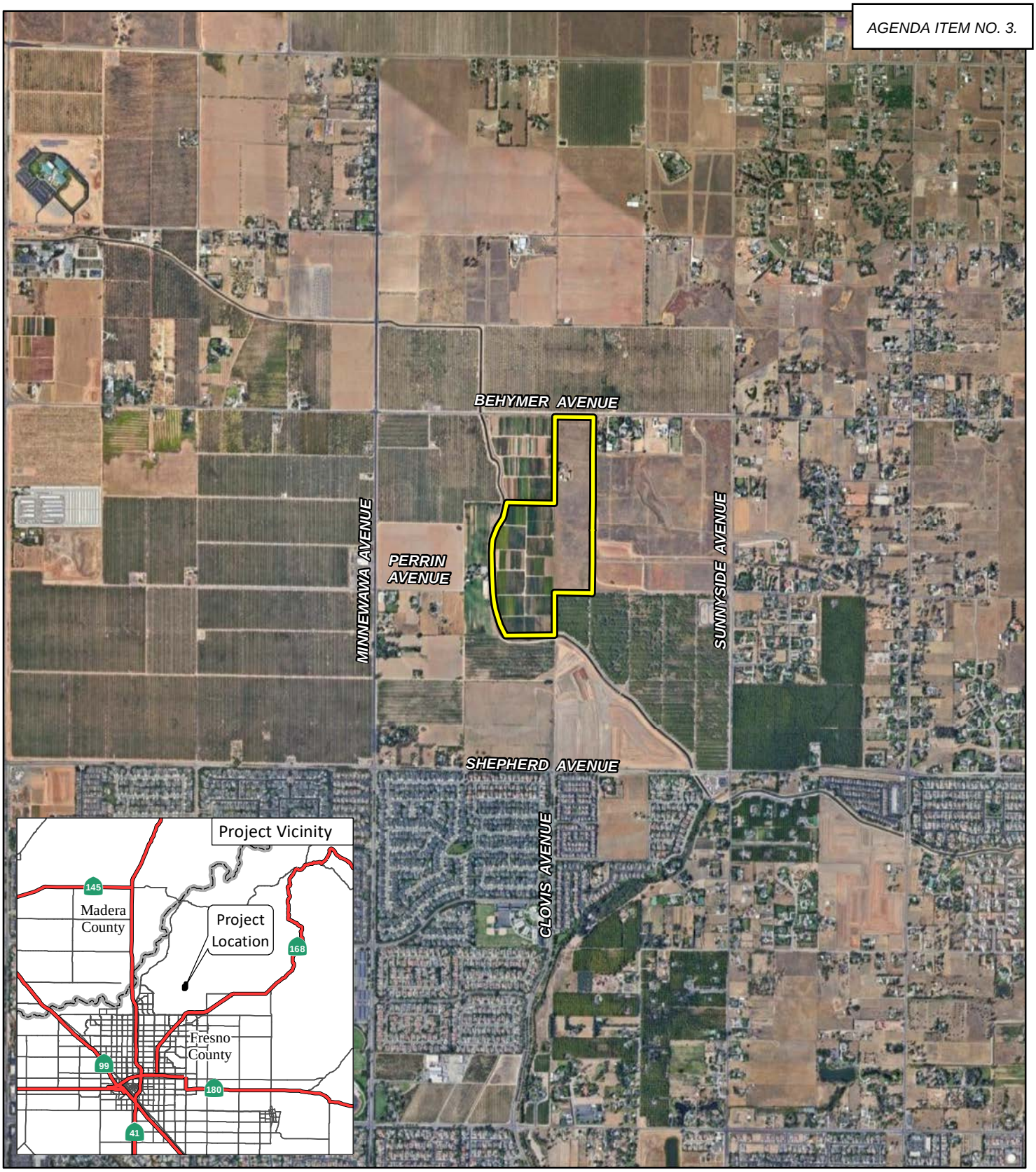
Land Use	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
Single-Family Detached Housing	590 DU							
Trips/Unit[1]		0.18	0.52	0.70	0.59	0.35	0.94	9.43
Trip Generation		106	307	413	348	207	555	5,564

Notes:

DU = Dwelling Units

[1] Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Land Use 210 - "Single-Family Detached Housing", Setting/Location - "General Urban/Suburban."

FIGURES



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

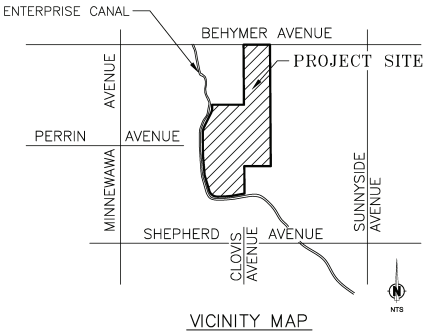
FEET

SOURCE: Google Earth (2018)

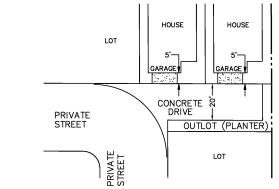
I:\CIT2201\Reports\fig1_Reg_Loc.mxd (5/3/2022)

Tract Map 6343 Project
Transportation Impact Analysis

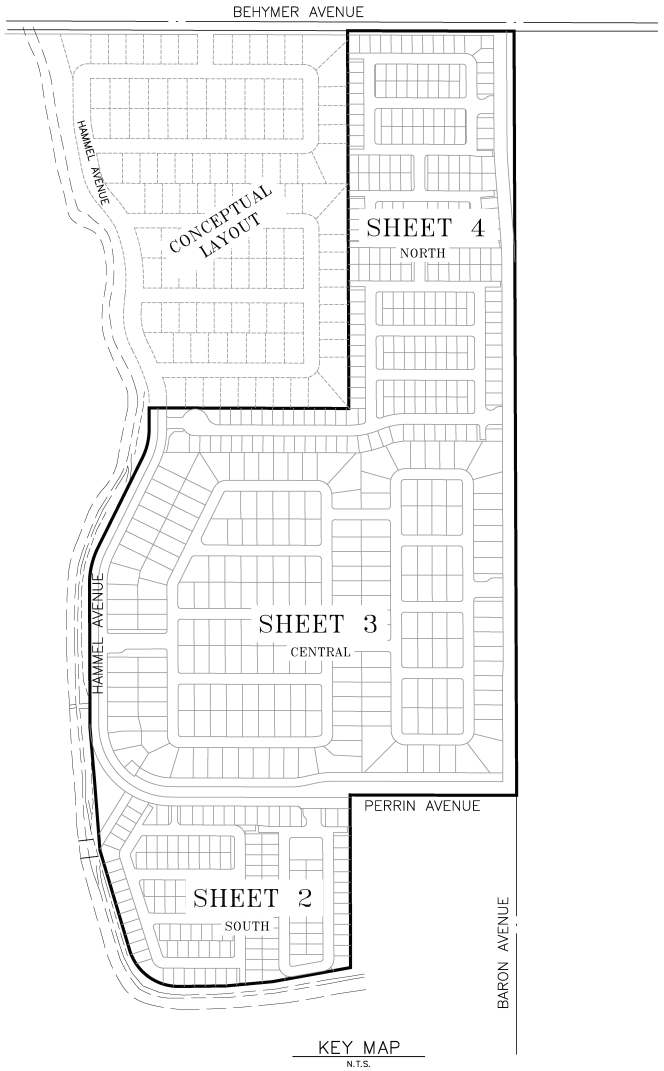
Regional and Project Location



VICINITY MAP
N.T.S.



TYPICAL FINGER ROAD DETAIL
N.T.S.



KEY MAP
N.T.S.

LSA

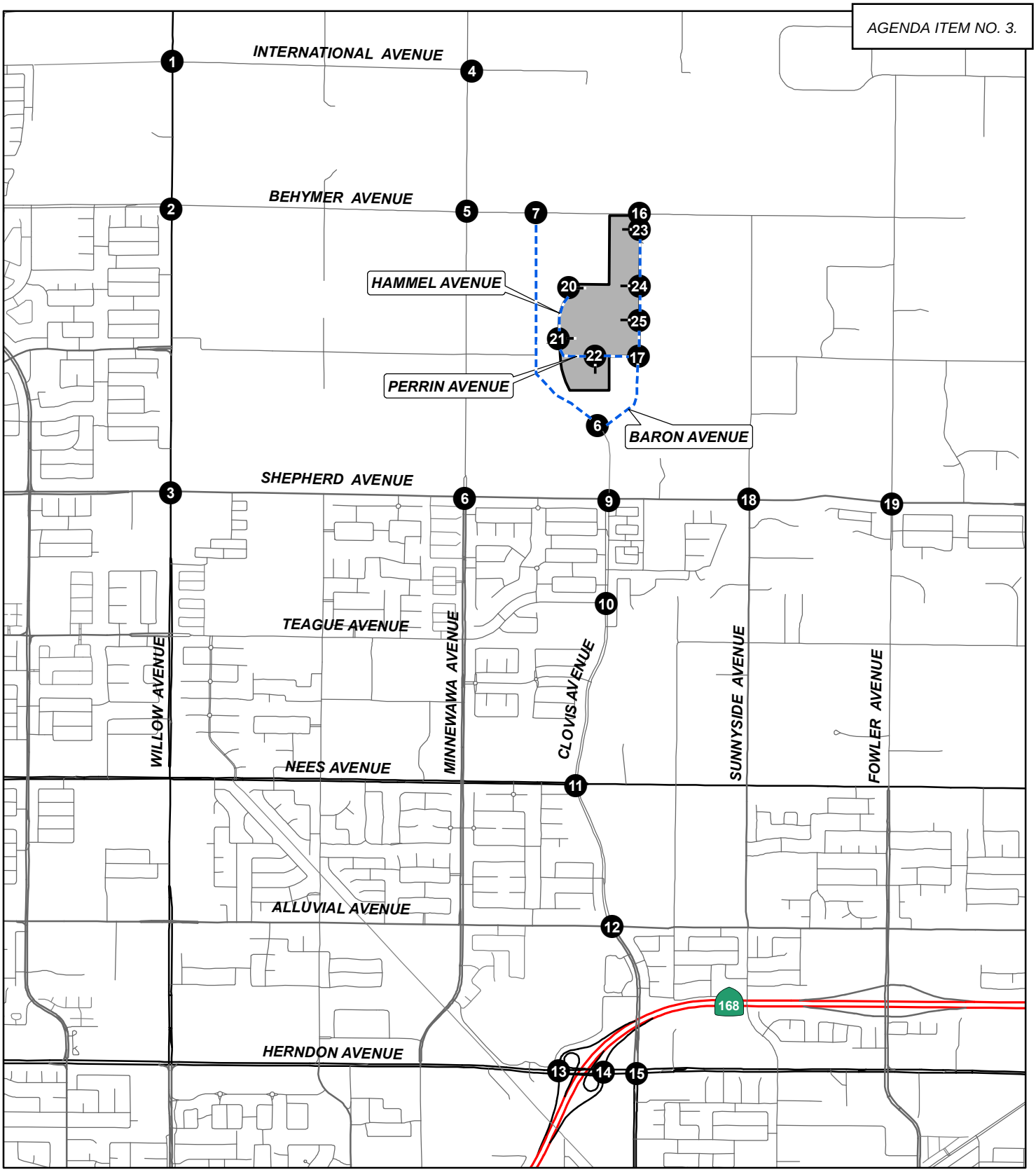
FIGURE 2

N

Tract Map 6343 Project
Transportation Impact Analysis

NOT TO SCALE
SOURCE: Harbour & Associates, January 2022
I:\CIT2201\Reports\Traffic\fig2_SitePlan.ai (05/03/2022)

Tentative Subdivision



LSA

FIGURE 3

LEGEND

- Project Location
- Study Intersection
- Future Roadway
- Project Driveway

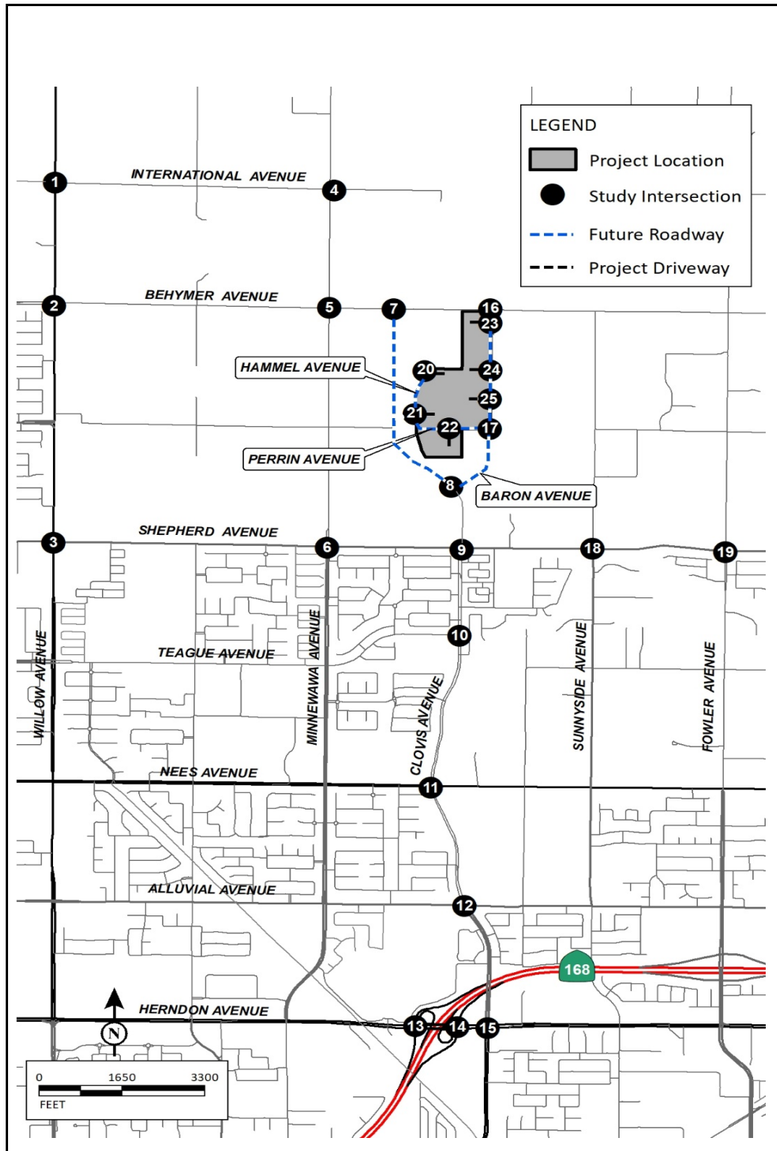
N

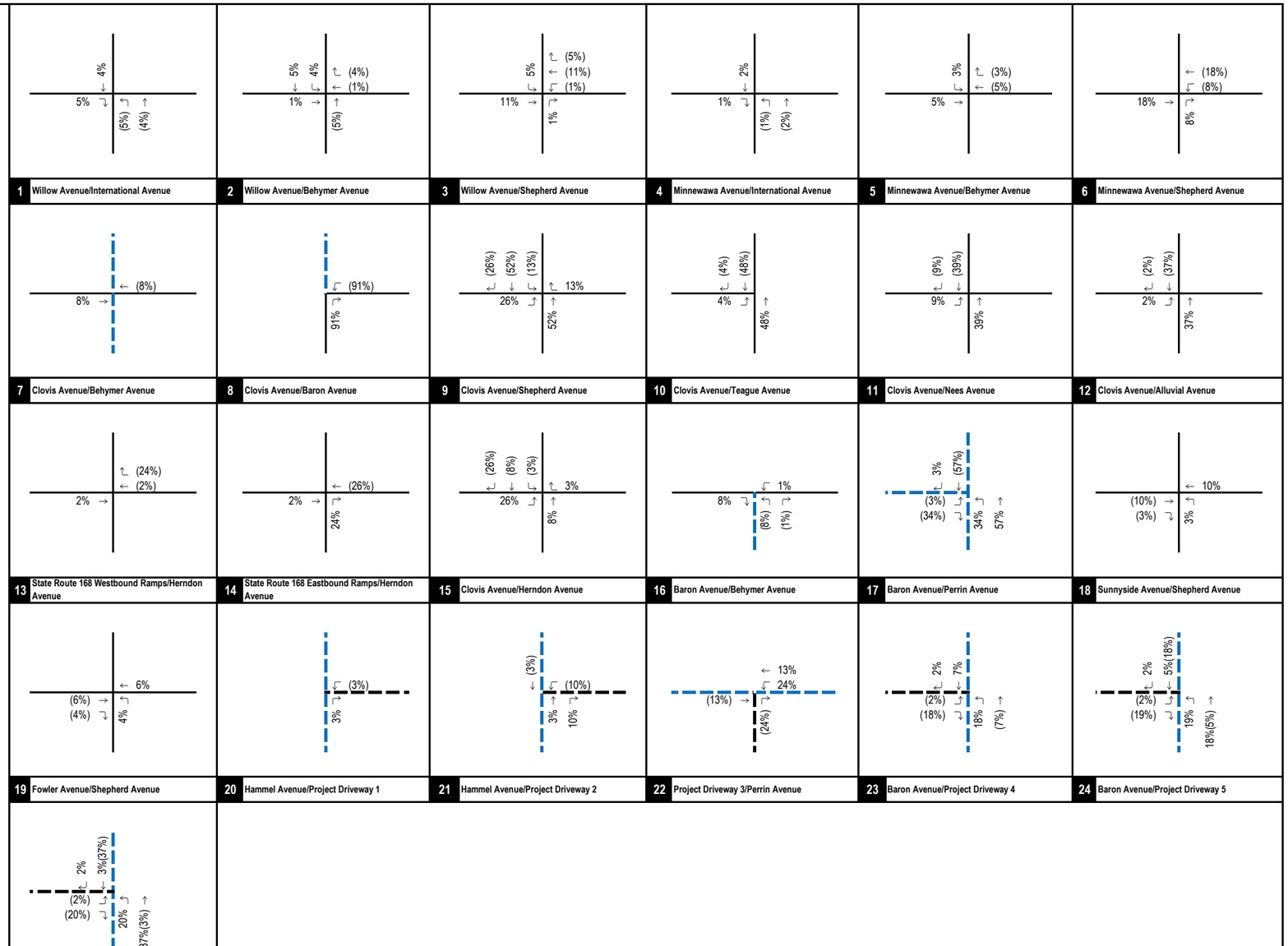
0 1250 2500
FEET

SOURCE: ESRI Streetmap (2013)

I:\CIT2201\Reports\fig3_Study_Int.mxd (6/30/2022)

Tract Map 6343 Project
Transportation Impact Analysis
Study Area Intersections





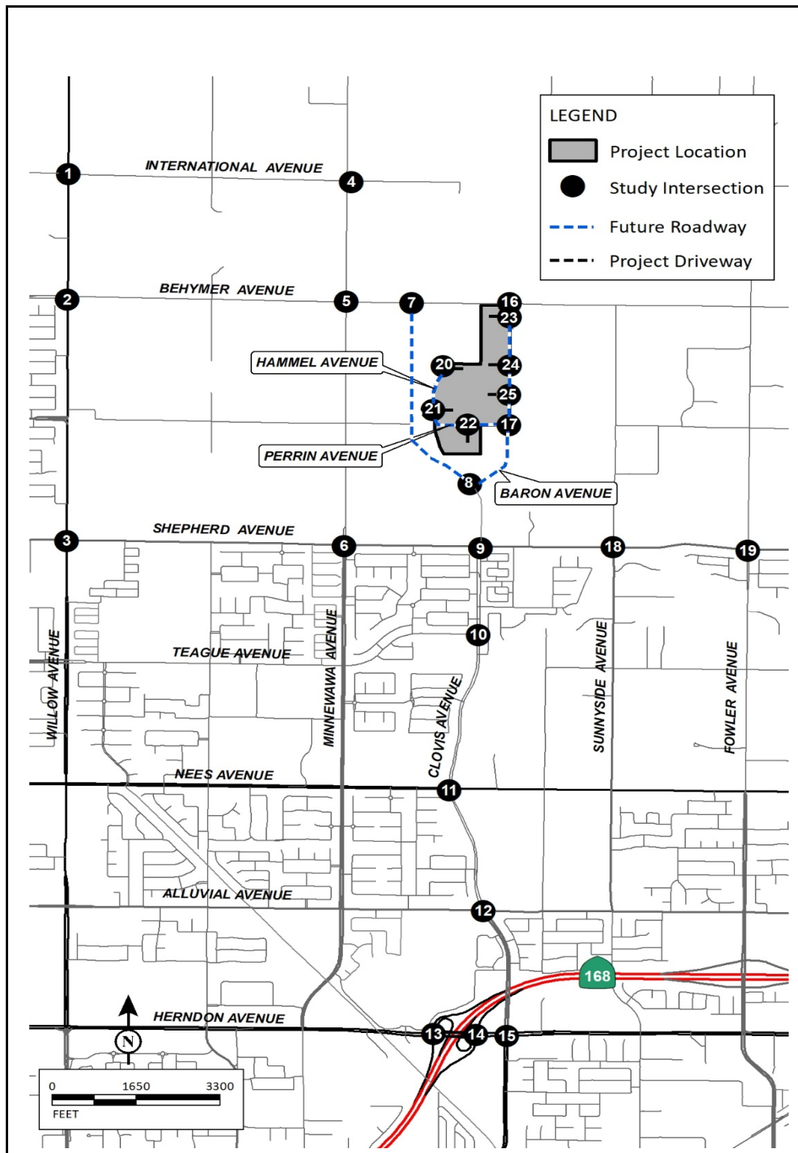
LSA

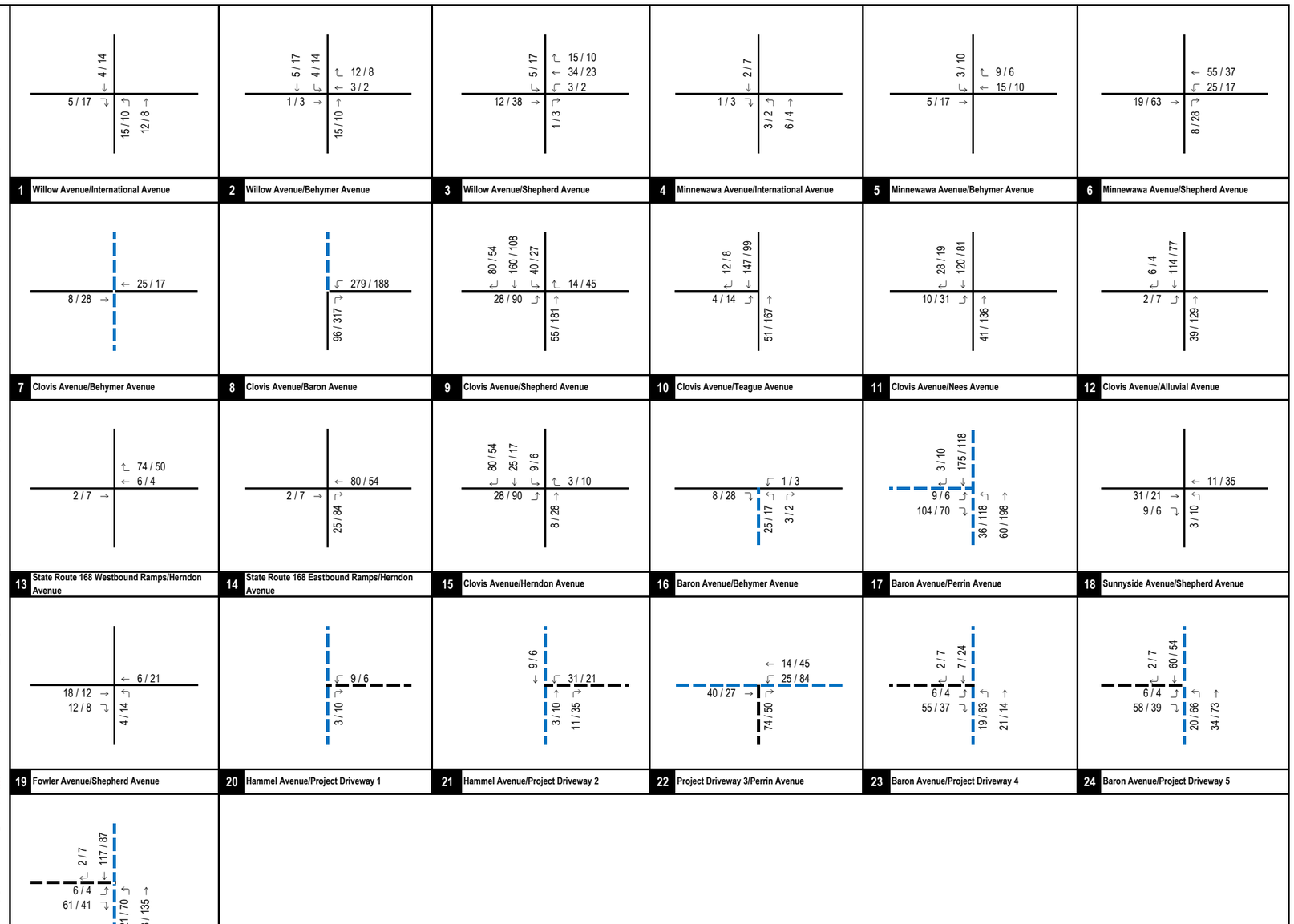
FIGURE 4

XX% (YY%)
Inbound (Outbound) Distribution
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis
Project Trip Distribution

P:\CIT2201\Traffic\z45_Dist.xlsx 7/1/2022





LSA

FIGURE 5

XXX / YYY
AM / PM Peak Hour Traffic Volumes
Future Roadway
Project Driveway

Tract Map 6343 Project
Transportation Impact Analysis
Project Trip Assignment

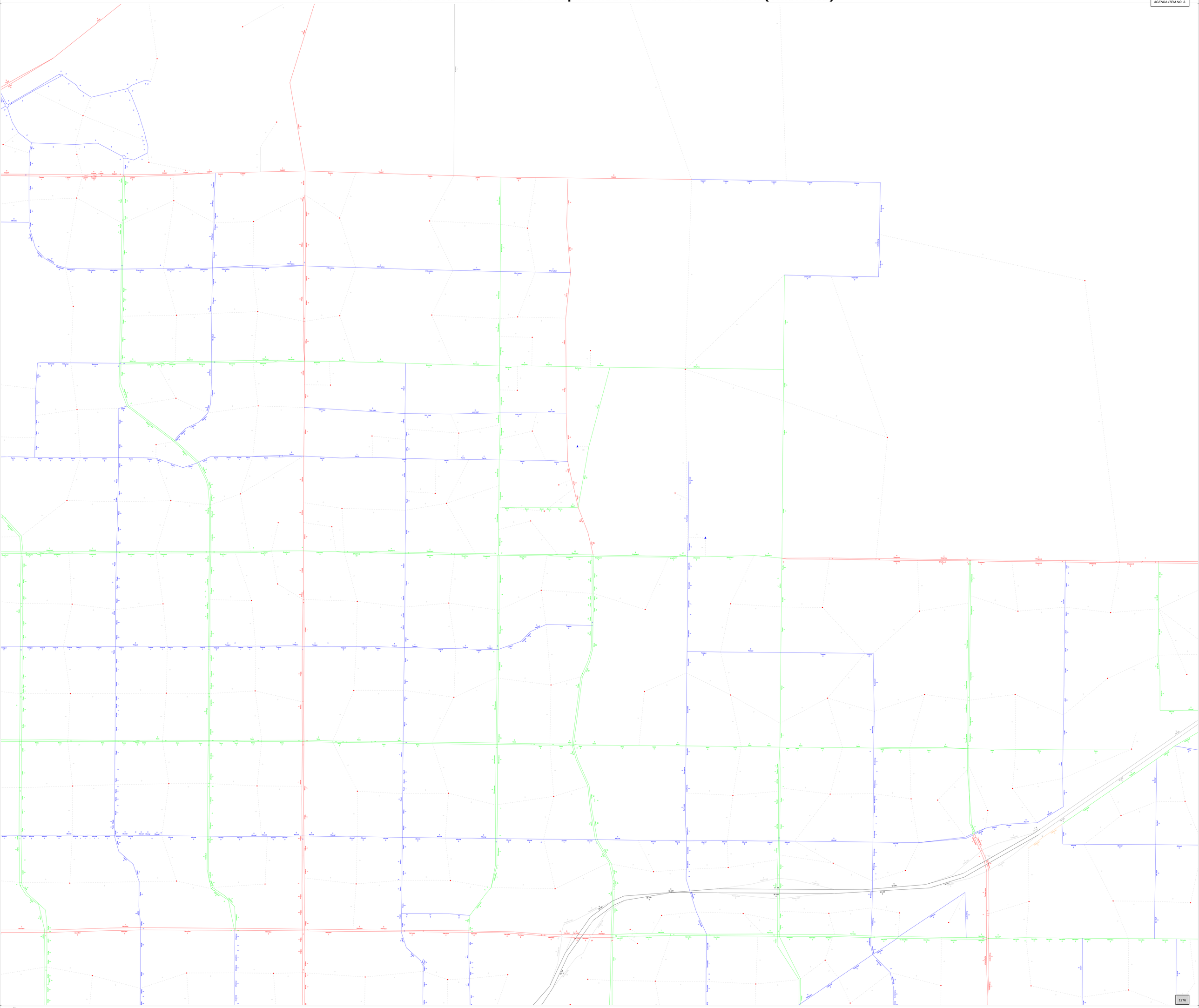
P:\CIT2201\Traffic\z45_Assign.xlsx 7/1/2022

APPENDIX A

FRESNO COG ABM SELECT ZONE MODEL PLOTS

Fresno COG 2035 Travel Model - PM peak hour Select Zone Distribution (Tract 6205)

AGENDA ITEM NO. 3.



(Licensed to LSA Associates, Inc.)

APPENDIX B

VMT CALCULATION WORKSHEETS

Appendix B

VMT Calculations Worksheet

Total project households	590
Total project population (a)	2025
Percent Population traveling to outside (b) *	7.79%
Project Population traveling to outside (c=b*a)	158
Total Internal-Internal (II) Project VMT (d) **	30,217
Internal project population (e=a-c)	1,867.21
II VMT per capita (f=d/e)	16.18
IX VMT per capita (g) ***	20.2
Total IX VMT (h=g*c)	3,187
Total project VMT (i=d+h)	33,404
VMT per capita (j=i/a)	16.5
VMT adjustment factor for new base model (k)	1.08
Adjusted project VMT per capita (l = k*j)	17.8

** : Obtained from "Fresno_worker_ixxifractions.dat" from model inputs. Used same percentages/values as the*

***: Includes all tours and all sub-tours from the ABM model run for VMT estimation*

****: IX VMT per capita was estimated as average for all TAZs in the CSTDM Zone 2569*

APPENDIX C

TRAFFIC COUNT SHEETS AND SIGNAL TIMING SHEETS

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

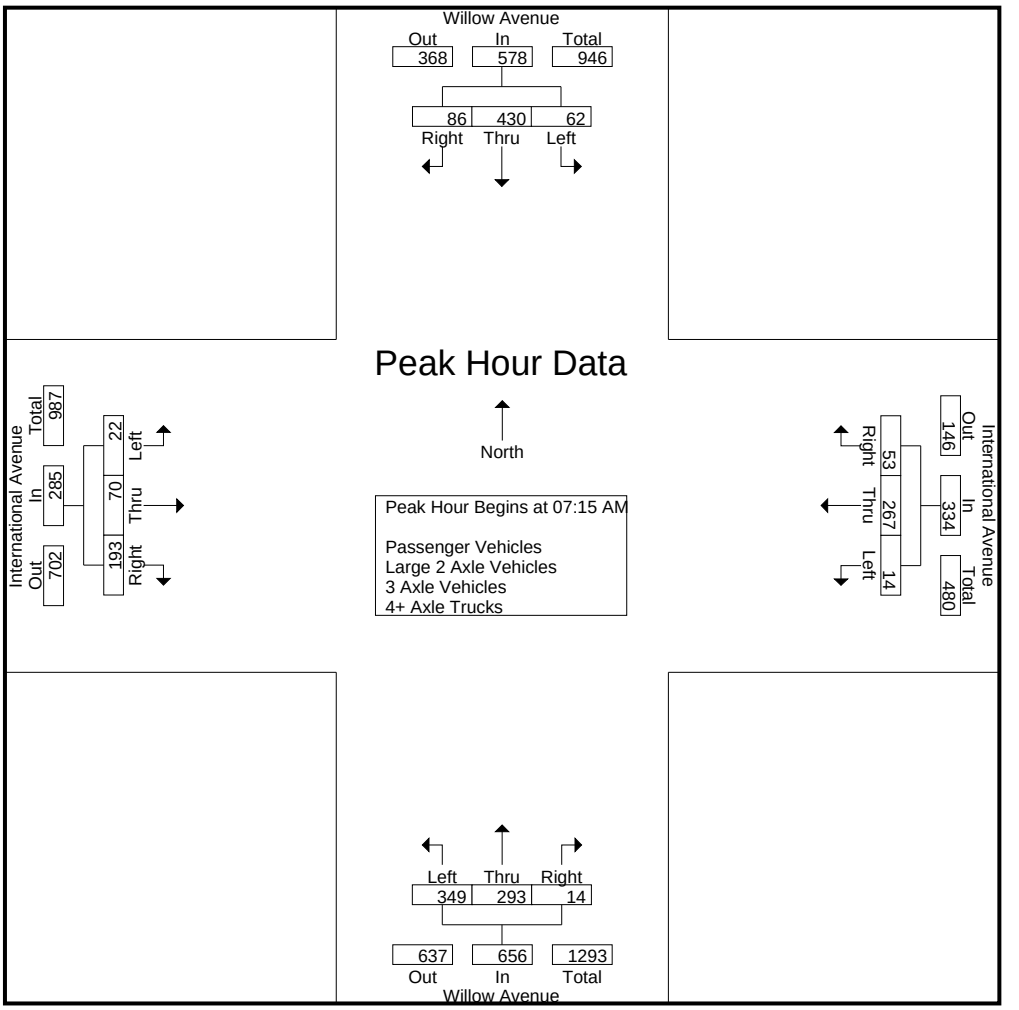
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	53	5	60	0	24	3	27	21	48	2	71	1	9	15	25	183
07:15 AM	3	62	6	71	1	48	15	64	58	52	1	111	3	6	21	30	276
07:30 AM	10	107	11	128	3	75	17	95	91	71	0	162	2	17	48	67	452
07:45 AM	27	130	42	199	4	95	17	116	117	97	4	218	6	18	55	79	612
Total	42	352	64	458	8	242	52	302	287	268	7	562	12	50	139	201	1523
08:00 AM	22	131	27	180	6	49	4	59	83	73	9	165	11	29	69	109	513
08:15 AM	2	60	8	70	3	9	3	15	19	55	7	81	2	5	24	31	197
08:30 AM	1	46	1	48	0	6	3	9	19	50	3	72	1	5	13	19	148
08:45 AM	3	47	1	51	1	5	1	7	14	55	4	73	2	5	16	23	154
Total	28	284	37	349	10	69	11	90	135	233	23	391	16	44	122	182	1012
Grand Total	70	636	101	807	18	311	63	392	422	501	30	953	28	94	261	383	2535
Apprch %	8.7	78.8	12.5		4.6	79.3	16.1		44.3	52.6	3.1		7.3	24.5	68.1		
Total %	2.8	25.1	4	31.8	0.7	12.3	2.5	15.5	16.6	19.8	1.2	37.6	1.1	3.7	10.3	15.1	
Passenger Vehicles	64	619	101	784	17	308	57	382	419	477	29	925	27	94	257	378	2469
% Passenger Vehicles	91.4	97.3	100	97.1	94.4	99	90.5	97.4	99.3	95.2	96.7	97.1	96.4	100	98.5	98.7	97.4
Large 2 Axle Vehicles	6	12	0	18	0	3	6	9	3	12	0	15	1	0	4	5	47
% Large 2 Axle Vehicles	8.6	1.9	0	2.2	0	1	9.5	2.3	0.7	2.4	0	1.6	3.6	0	1.5	1.3	1.9
3 Axle Vehicles	0	3	0	3	1	0	0	1	0	7	1	8	0	0	0	0	12
% 3 Axle Vehicles	0	0.5	0	0.4	5.6	0	0	0.3	0	1.4	3.3	0.8	0	0	0	0	0.5
4+ Axle Trucks	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	0	7
% 4+ Axle Trucks	0	0.3	0	0.2	0	0	0	0	0	1	0	0.5	0	0	0	0	0.3

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	62	6	71	1	48	15	64	58	52	1	111	3	6	21	30	276
07:30 AM	10	107	11	128	3	75	**17**	95	91	71	0	162	2	17	48	67	452
07:45 AM	**27**	130	**42**	**199**	4	**95**	17	**116**	**117**	**97**	4	**218**	6	18	55	79	**612**
08:00 AM	22	**131**	27	180	**6**	49	4	59	83	73	**9**	165	**11**	**29**	**69**	**109**	513
Total Volume	62	430	86	578	14	267	53	334	349	293	14	656	22	70	193	285	1853
% App. Total	10.7	74.4	14.9		4.2	79.9	15.9		53.2	44.7	2.1		7.7	24.6	67.7		
PHF	.574	.821	.512	.726	.583	.703	.779	.720	.746	.755	.389	.752	.500	.603	.699	.654	.757

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	3	62	6	71	1	48	15	64	58	52	1	111	2	17	48	67
+15 mins.	10	107	11	128	3	75	**17**	95	91	71	0	162	6	18	55	79
+30 mins.	**27**	130	**42**	**199**	4	**95**	17	**116**	**117**	**97**	4	**218**	**11**	**29**	**69**	**109**
+45 mins.	22	**131**	27	180	**6**	49	4	59	83	73	**9**	165	2	5	24	31
Total Volume	62	430	86	578	14	267	53	334	349	293	14	656	21	69	196	286
% App. Total	10.7	74.4	14.9		4.2	79.9	15.9		53.2	44.7	2.1		7.3	24.1	68.5	
PHF	.574	.821	.512	.726	.583	.703	.779	.720	.746	.755	.389	.752	.477	.595	.710	.656

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

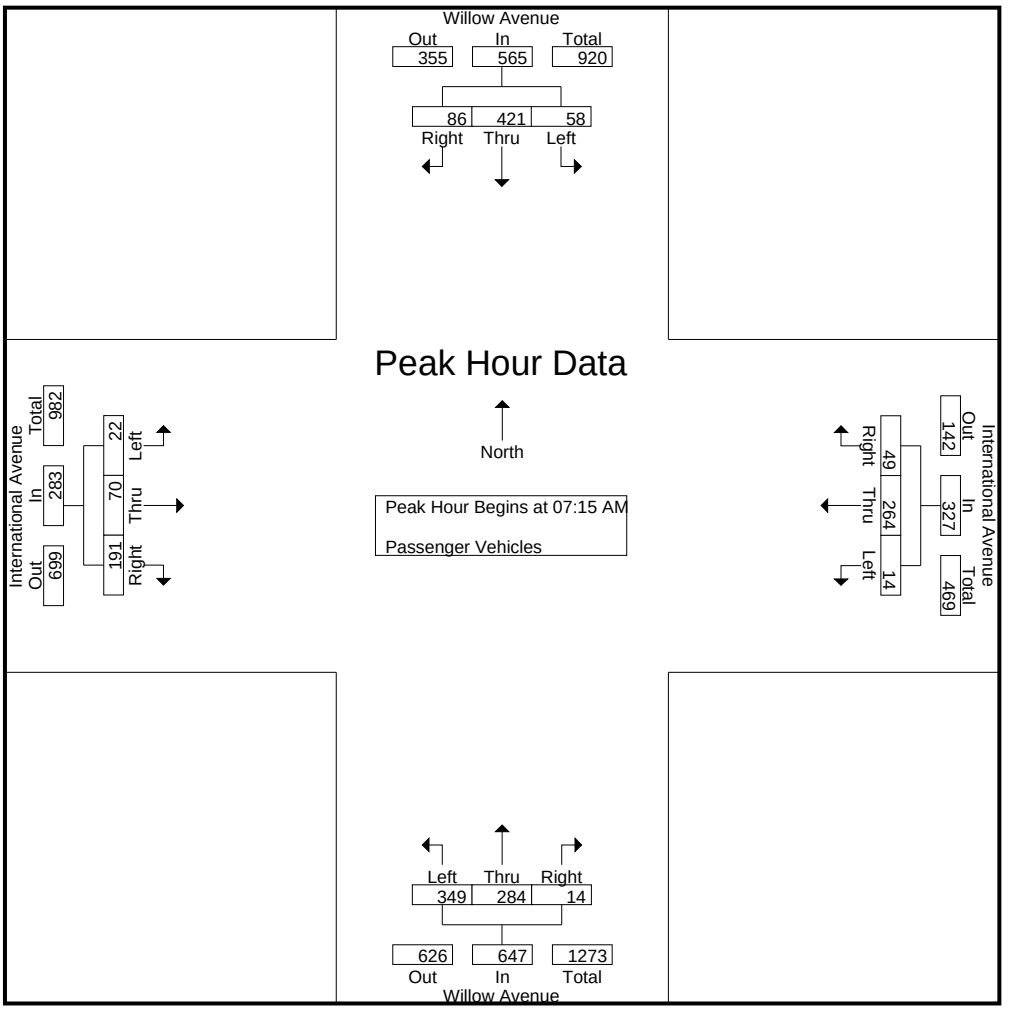
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	49	5	55	0	24	3	27	20	45	2	67	1	9	15	25	174
07:15 AM	0	58	6	64	1	45	12	58	58	50	1	109	3	6	20	29	260
07:30 AM	9	107	11	127	3	75	17	95	91	66	0	157	2	17	48	67	446
07:45 AM	27	129	42	198	4	95	17	116	117	96	4	217	6	18	55	79	610
Total	37	343	64	444	8	239	49	296	286	257	7	550	12	50	138	200	1490
08:00 AM	22	127	27	176	6	49	3	58	83	72	9	164	11	29	68	108	506
08:15 AM	2	59	8	69	3	9	2	14	17	47	7	71	1	5	24	30	184
08:30 AM	1	44	1	46	0	6	2	8	19	47	2	68	1	5	13	19	141
08:45 AM	2	46	1	49	0	5	1	6	14	54	4	72	2	5	14	21	148
Total	27	276	37	340	9	69	8	86	133	220	22	375	15	44	119	178	979
Grand Total	64	619	101	784	17	308	57	382	419	477	29	925	27	94	257	378	2469
Apprch %	8.2	79	12.9		4.5	80.6	14.9		45.3	51.6	3.1		7.1	24.9	68		
Total %	2.6	25.1	4.1	31.8	0.7	12.5	2.3	15.5	17	19.3	1.2	37.5	1.1	3.8	10.4	15.3	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	58	6	64	1	45	12	58	58	50	1	109	3	6	20	29	260
07:30 AM	9	107	11	127	3	75	**17**	95	91	66	0	157	2	17	48	67	446
07:45 AM	**27**	**129**	**42**	**198**	4	**95**	17	**116**	**117**	**96**	4	**217**	6	18	55	79	**610**
08:00 AM	22	127	27	176	**6**	49	3	58	83	72	**9**	164	**11**	**29**	**68**	**108**	506
Total Volume	58	421	86	565	14	264	49	327	349	284	14	647	22	70	191	283	1822
% App. Total	10.3	74.5	15.2		4.3	80.7	15		53.9	43.9	2.2		7.8	24.7	67.5		
PHF	.537	.816	.512	.713	.583	.695	.721	.705	.746	.740	.389	.745	.500	.603	.702	.655	.747

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	58	6	64	1	45	12	58	58	50	1	109	3	6	20	29
+15 mins.	9	107	11	127	3	75	**17**	95	91	66	0	157	2	17	48	67
+30 mins.	**27**	**129**	**42**	**198**	4	**95**	17	**116**	**117**	**96**	4	**217**	6	18	55	79
+45 mins.	22	127	27	176	**6**	49	3	58	83	72	**9**	164	**11**	**29**	**68**	**108**
Total Volume	58	421	86	565	14	264	49	327	349	284	14	647	22	70	191	283
% App. Total	10.3	74.5	15.2		4.3	80.7	15		53.9	43.9	2.2		7.8	24.7	67.5	
PHF	.537	.816	.512	.713	.583	.695	.721	.705	.746	.740	.389	.745	.500	.603	.702	.655

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

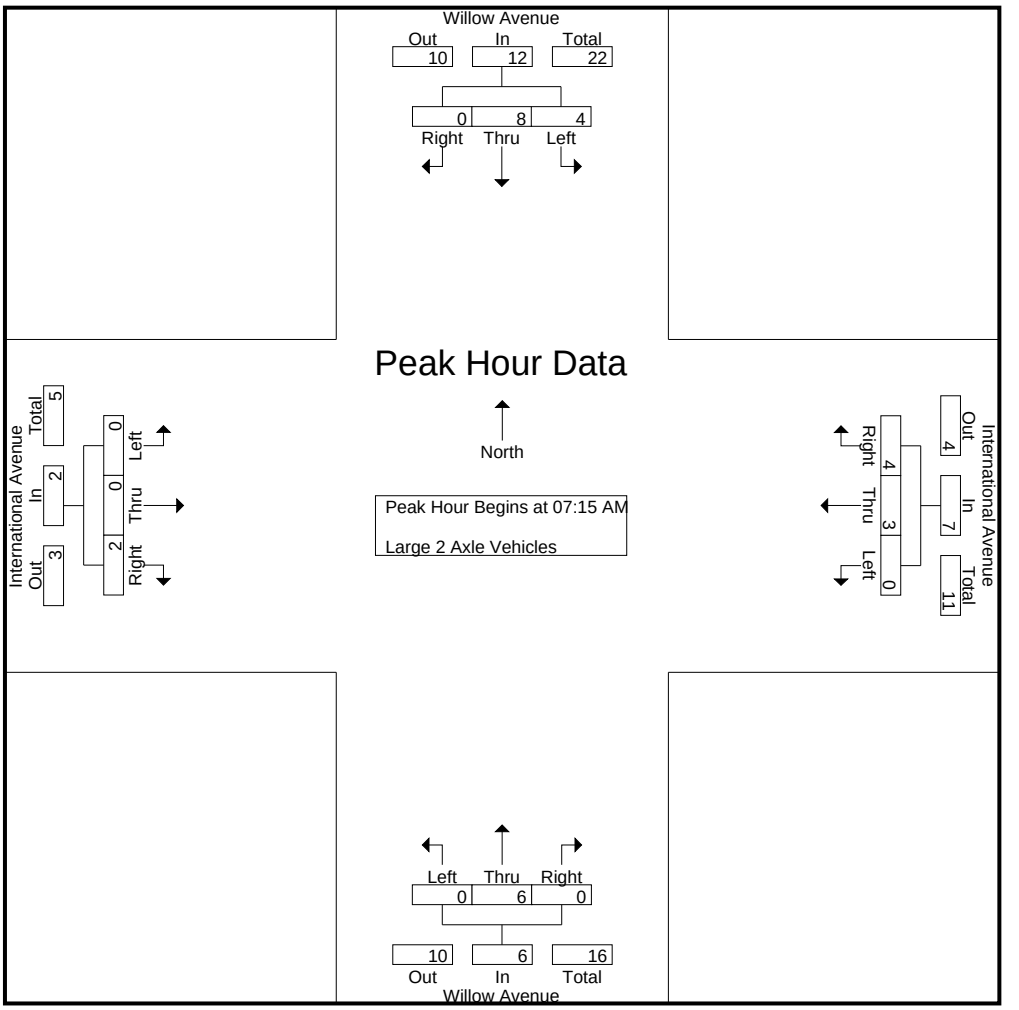
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	3	0	4	0	0	0	0	1	2	0	3	0	0	0	0	7
07:15 AM	3	4	0	7	0	3	3	6	0	2	0	2	0	0	1	1	16
07:30 AM	1	0	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	5	7	0	12	0	3	3	6	1	8	0	9	0	0	1	1	28
08:00 AM	0	4	0	4	0	0	1	1	0	0	0	0	0	0	1	1	6
08:15 AM	0	1	0	1	0	0	1	1	2	3	0	5	1	0	0	1	8
08:30 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
08:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	3
Total	1	5	0	6	0	0	3	3	2	4	0	6	1	0	3	4	19
Grand Total	6	12	0	18	0	3	6	9	3	12	0	15	1	0	4	5	47
Apprch %	33.3	66.7	0		0	33.3	66.7		20	80	0		20	0	80		
Total %	12.8	25.5	0	38.3	0	6.4	12.8	19.1	6.4	25.5	0	31.9	2.1	0	8.5	10.6	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**3**	**4**	0	**7**	0	**3**	**3**	**6**	0	2	0	2	0	0	**1**	**1**	**16**
07:30 AM	1	0	0	1	0	0	0	0	0	**3**	0	**3**	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	4	0	4	0	0	1	1	0	0	0	0	0	0	1	1	6
Total Volume	4	8	0	12	0	3	4	7	0	6	0	6	0	0	2	2	27
% App. Total	33.3	66.7	0		0	42.9	57.1		0	100	0		0	0	100		
PHF	.333	.500	.000	.429	.000	.250	.333	.292	.000	.500	.000	.500	.000	.000	.500	.500	.422

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	**3**	**4**	0	**7**	0	**3**	**3**	**6**	0	2	0	2	0	0	**1**	**1**
+15 mins.	1	0	0	1	0	0	0	0	0	**3**	0	**3**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	4	0	4	0	0	1	1	0	0	0	0	0	0	1	1
Total Volume	4	8	0	12	0	3	4	7	0	6	0	6	0	0	2	2
% App. Total	33.3	66.7	0		0	42.9	57.1		0	100	0		0	0	100	
PHF	.333	.500	.000	.429	.000	.250	.333	.292	.000	.500	.000	.500	.000	.000	.500	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

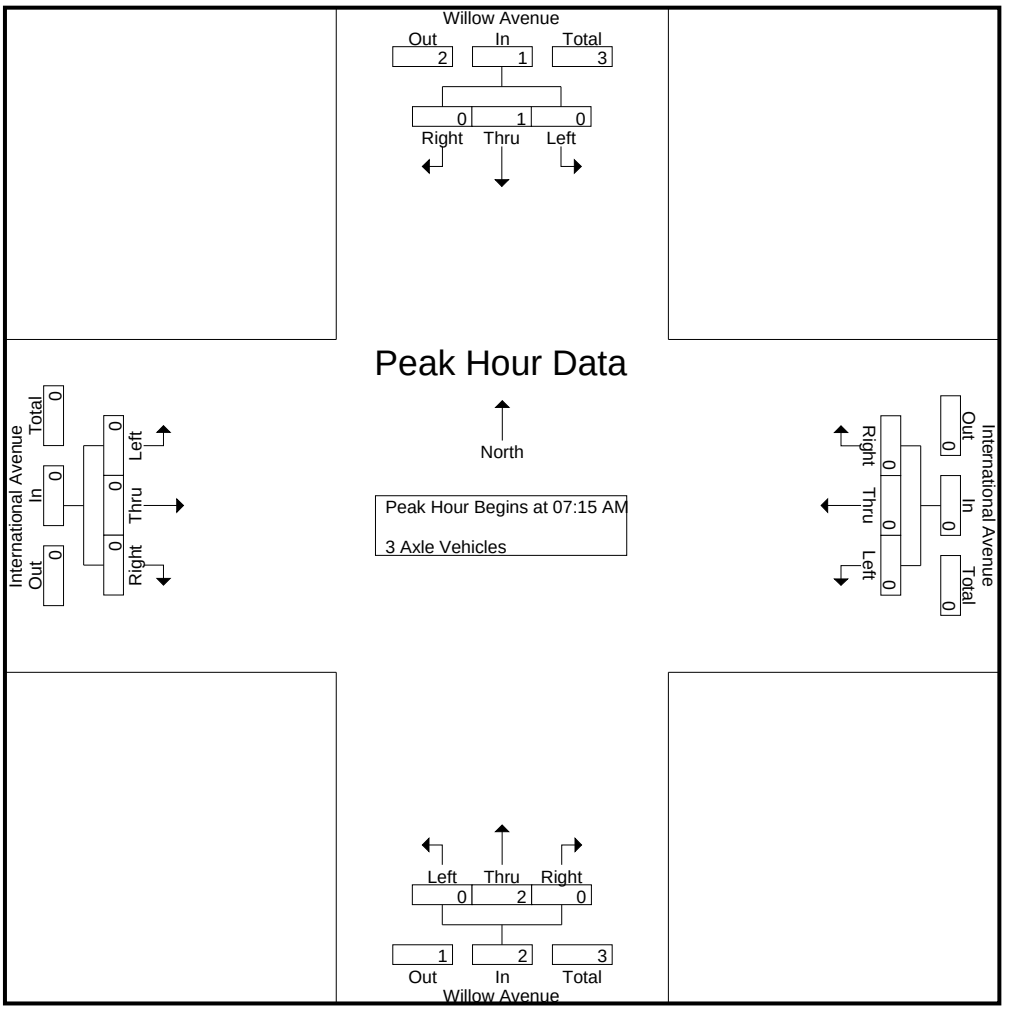
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:30 AM	0	1	0	1	0	0	0	0	0	2	1	3	0	0	0	0	4
08:45 AM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	2	0	2	1	0	0	1	0	6	1	7	0	0	0	0	10
Grand Total	0	3	0	3	1	0	0	1	0	7	1	8	0	0	0	0	12
Apprch %	0	100	0		100	0	0		0	87.5	12.5		0	0	0		
Total %	0	25	0	25	8.3	0	0	8.3	0	58.3	8.3	66.7	0	0	0	0	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

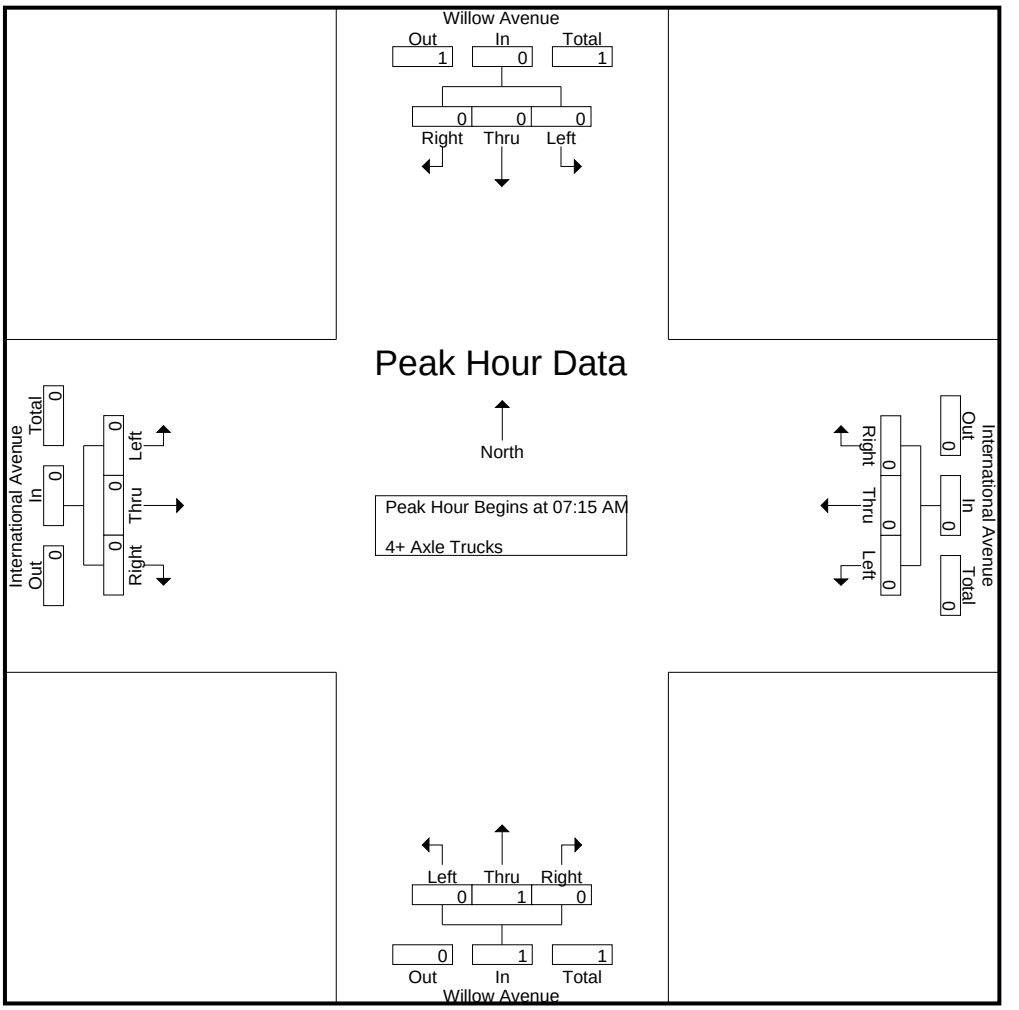
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
Grand Total	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	0	7
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	28.6	0	28.6	0	0	0	0	0	71.4	0	71.4	0	0	0	0	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

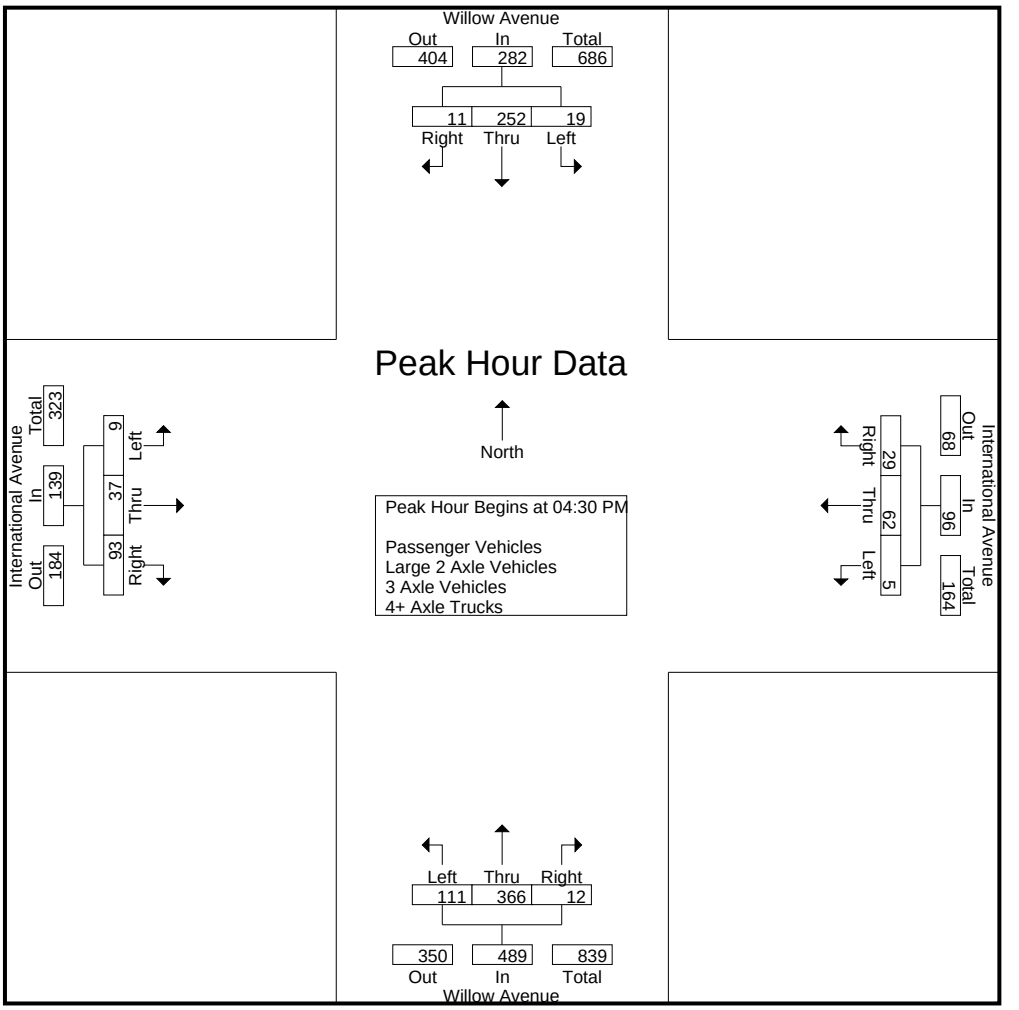
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	72	7	81	0	8	2	10	22	81	1	104	4	12	24	40	235
04:15 PM	4	78	3	85	2	11	4	17	13	62	1	76	1	14	24	39	217
04:30 PM	5	51	5	61	0	18	8	26	33	90	4	127	1	8	12	21	235
04:45 PM	13	79	3	95	1	15	11	27	28	84	1	113	2	9	24	35	270
Total	24	280	18	322	3	52	25	80	96	317	7	420	8	43	84	135	957
05:00 PM	1	60	2	63	2	17	4	23	21	69	3	93	5	5	33	43	222
05:15 PM	0	62	1	63	2	12	6	20	29	123	4	156	1	15	24	40	279
05:30 PM	3	55	1	59	5	6	10	21	17	84	5	106	1	4	14	19	205
05:45 PM	7	68	1	76	0	10	4	14	14	89	2	105	0	6	17	23	218
Total	11	245	5	261	9	45	24	78	81	365	14	460	7	30	88	125	924
Grand Total	35	525	23	583	12	97	49	158	177	682	21	880	15	73	172	260	1881
Apprch %	6	90.1	3.9		7.6	61.4	31		20.1	77.5	2.4		5.8	28.1	66.2		
Total %	1.9	27.9	1.2	31	0.6	5.2	2.6	8.4	9.4	36.3	1.1	46.8	0.8	3.9	9.1	13.8	
Passenger Vehicles	34	521	22	577	12	94	49	155	177	682	21	880	15	72	167	254	1866
% Passenger Vehicles	97.1	99.2	95.7	99	100	96.9	100	98.1	100	100	100	100	100	98.6	97.1	97.7	99.2
Large 2 Axle Vehicles	0	3	1	4	0	3	0	3	0	0	0	0	0	1	5	6	13
% Large 2 Axle Vehicles	0	0.6	4.3	0.7	0	3.1	0	1.9	0	0	0	0	0	1.4	2.9	2.3	0.7
3 Axle Vehicles	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	2.9	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	51	**5**	61	0	**18**	8	26	**33**	90	**4**	127	1	8	12	21	235
04:45 PM	**13**	**79**	3	**95**	1	15	**11**	**27**	28	84	1	113	2	9	24	35	270
05:00 PM	1	60	2	63	**2**	17	4	23	21	69	3	93	**5**	5	**33**	**43**	222
05:15 PM	0	62	1	63	2	12	6	20	29	**123**	4	**156**	1	**15**	24	40	**279**
Total Volume	19	252	11	282	5	62	29	96	111	366	12	489	9	37	93	139	1006
% App. Total	6.7	89.4	3.9		5.2	64.6	30.2		22.7	74.8	2.5		6.5	26.6	66.9		
PHF	.365	.797	.550	.742	.625	.861	.659	.889	.841	.744	.750	.784	.450	.617	.705	.808	.901

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	2	72	**7**	81	0	**18**	8	26	**33**	90	**4**	127	1	8	12	21
+15 mins.	4	78	3	85	1	15	**11**	**27**	28	84	1	113	2	9	24	35
+30 mins.	5	51	5	61	**2**	17	4	23	21	69	3	93	**5**	5	**33**	**43**
+45 mins.	**13**	**79**	3	**95**	2	12	6	20	29	**123**	4	**156**	1	**15**	24	40
Total Volume	24	280	18	322	5	62	29	96	111	366	12	489	9	37	93	139
% App. Total	7.5	87	5.6		5.2	64.6	30.2		22.7	74.8	2.5		6.5	26.6	66.9	
PHF	.462	.886	.643	.847	.625	.861	.659	.889	.841	.744	.750	.784	.450	.617	.705	.808

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

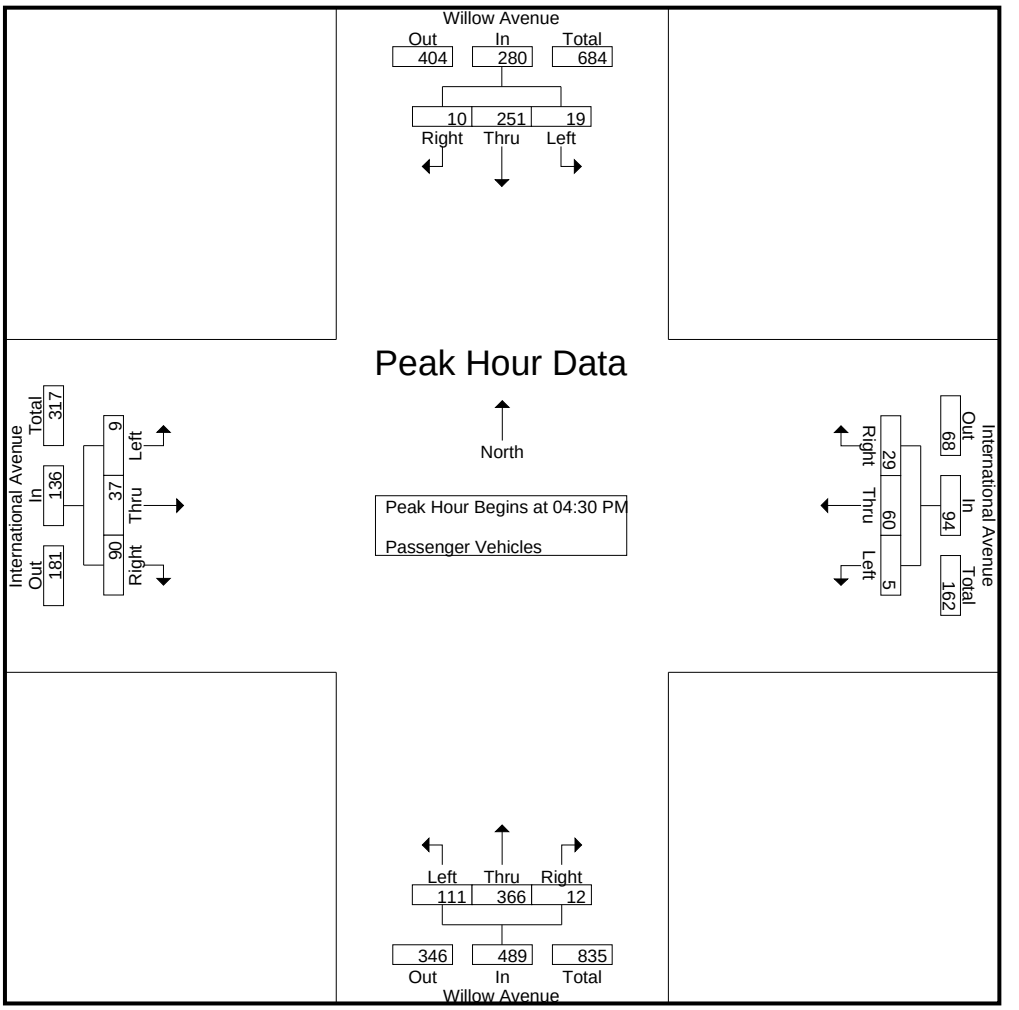
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	70	7	79	0	8	2	10	22	81	1	104	4	11	24	39	232
04:15 PM	3	77	3	83	2	11	4	17	13	62	1	76	1	14	23	38	214
04:30 PM	5	50	4	59	0	18	8	26	33	90	4	127	1	8	12	21	233
04:45 PM	13	79	3	95	1	15	11	27	28	84	1	113	2	9	24	35	270
Total	23	276	17	316	3	52	25	80	96	317	7	420	8	42	83	133	949
05:00 PM	1	60	2	63	2	16	4	22	21	69	3	93	5	5	32	42	220
05:15 PM	0	62	1	63	2	11	6	19	29	123	4	156	1	15	22	38	276
05:30 PM	3	55	1	59	5	6	10	21	17	84	5	106	1	4	14	19	205
05:45 PM	7	68	1	76	0	9	4	13	14	89	2	105	0	6	16	22	216
Total	11	245	5	261	9	42	24	75	81	365	14	460	7	30	84	121	917
Grand Total	34	521	22	577	12	94	49	155	177	682	21	880	15	72	167	254	1866
Apprch %	5.9	90.3	3.8		7.7	60.6	31.6		20.1	77.5	2.4		5.9	28.3	65.7		
Total %	1.8	27.9	1.2	30.9	0.6	5	2.6	8.3	9.5	36.5	1.1	47.2	0.8	3.9	8.9	13.6	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	50	**4**	59	0	**18**	8	26	**33**	90	**4**	127	1	8	12	21	233
04:45 PM	**13**	**79**	3	**95**	1	15	**11**	**27**	28	84	1	113	2	9	24	35	270
05:00 PM	1	60	2	63	**2**	16	4	22	21	69	3	93	**5**	5	**32**	**42**	220
05:15 PM	0	62	1	63	2	11	6	19	29	**123**	4	**156**	1	**15**	22	38	**276**
Total Volume	19	251	10	280	5	60	29	94	111	366	12	489	9	37	90	136	999
% App. Total	6.8	89.6	3.6		5.3	63.8	30.9		22.7	74.8	2.5		6.6	27.2	66.2		
PHF	.365	.794	.625	.737	.625	.833	.659	.870	.841	.744	.750	.784	.450	.617	.703	.810	.905

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	5	50	**4**	59	0	**18**	8	26	**33**	90	**4**	127	1	8	12	21
+15 mins.	**13**	**79**	3	**95**	1	15	**11**	**27**	28	84	1	113	2	9	24	35
+30 mins.	1	60	2	63	**2**	16	4	22	21	69	3	93	**5**	5	**32**	**42**
+45 mins.	0	62	1	63	2	11	6	19	29	**123**	4	**156**	1	**15**	22	38
Total Volume	19	251	10	280	5	60	29	94	111	366	12	489	9	37	90	136
% App. Total	6.8	89.6	3.6		5.3	63.8	30.9		22.7	74.8	2.5		6.6	27.2	66.2	
PHF	.365	.794	.625	.737	.625	.833	.659	.870	.841	.744	.750	.784	.450	.617	.703	.810

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

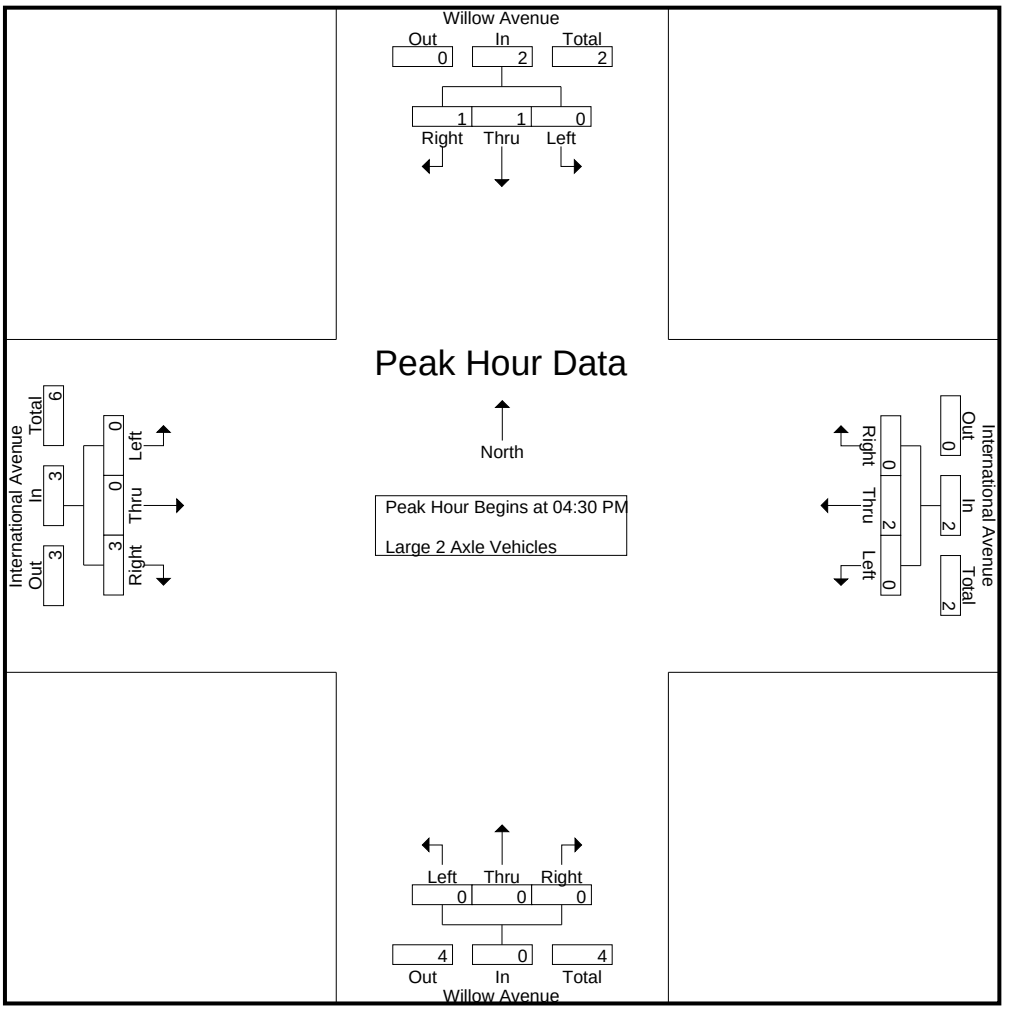
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
04:30 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	1	4	0	0	0	0	0	0	0	0	0	1	1	2	6
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	2	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	0	4	4	7
Grand Total	0	3	1	4	0	3	0	3	0	0	0	0	0	1	5	6	13
Apprch %	0	75	25		0	100	0		0	0	0		0	16.7	83.3		
Total %	0	23.1	7.7	30.8	0	23.1	0	23.1	0	0	0	0	0	7.7	38.5	46.2	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**1**	**1**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**2**	**2**	**3**
Total Volume	0	1	1	2	0	2	0	2	0	0	0	0	0	0	3	3	7
% App. Total	0	50	50		0	100	0		0	0	0		0	0	100		
PHF	.000	.250	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.375	.375	.583

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	**1**	**1**	**2**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**2**	**2**
Total Volume	0	1	1	2	0	2	0	2	0	0	0	0	0	0	3	3
% App. Total	0	50	50		0	100	0		0	0	0		0	0	100	
PHF	.000	.250	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.375	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

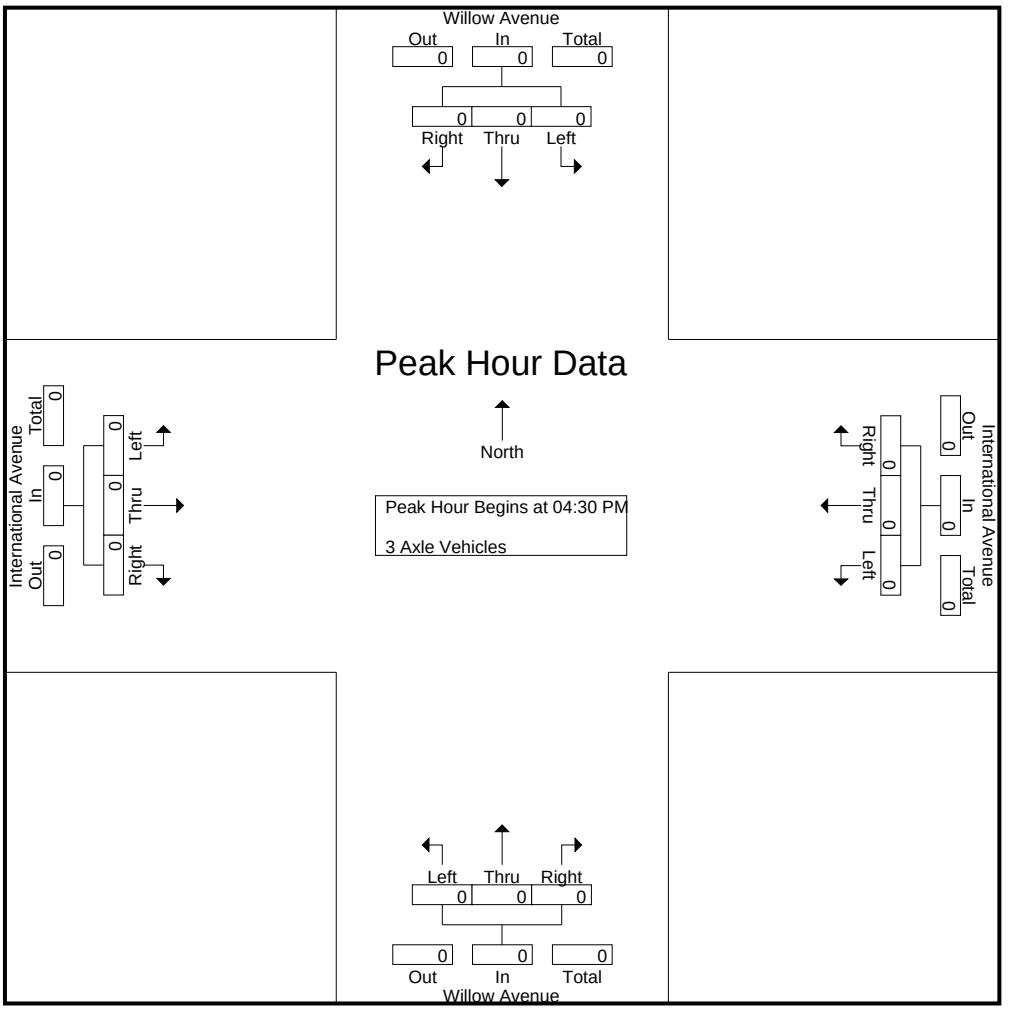
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	100	0	0		0	0	0		0	0	0		0	0	0		
Total %	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

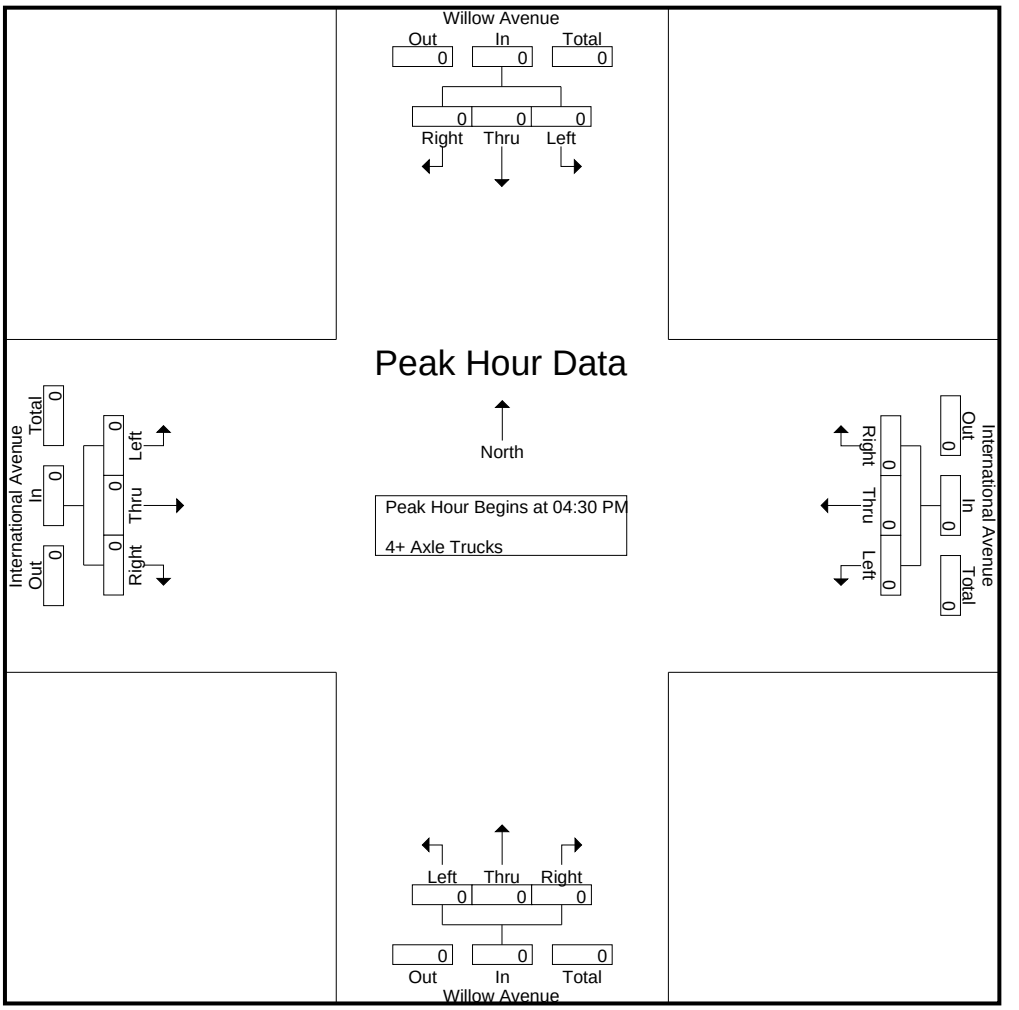
	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Willow Avenue Southbound				International Avenue Westbound				Willow Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: International Avenue
Weather: Clear

File Name : 01_CVS_Willow_Int PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Willow Avenue
E/W: International Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Willow Avenue	East Leg International Avenue	South Leg Willow Avenue	West Leg International Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	2	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	4	4

	North Leg Willow Avenue	East Leg International Avenue	South Leg Willow Avenue	West Leg International Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Willow Avenue
E/W: International Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Willow Avenue			Westbound International Avenue			Northbound Willow Avenue			Eastbound International Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	1	0	0	0	0	1	0	0	1	4
7:30 AM	2	1	0	0	0	0	2	2	0	0	0	0	7
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	2	0	0	0	0	0	0	0	2	0	0	4
8:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:30 AM	0	1	1	0	0	0	1	0	0	1	0	0	4
8:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
TOTAL VOLUMES:	2	9	1	1	0	0	3	6	1	3	0	1	27

	Southbound Willow Avenue			Westbound International Avenue			Northbound Willow Avenue			Eastbound International Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	1	3
4:15 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES:	0	8	0	1	0	0	0	3	0	0	0	1	13

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

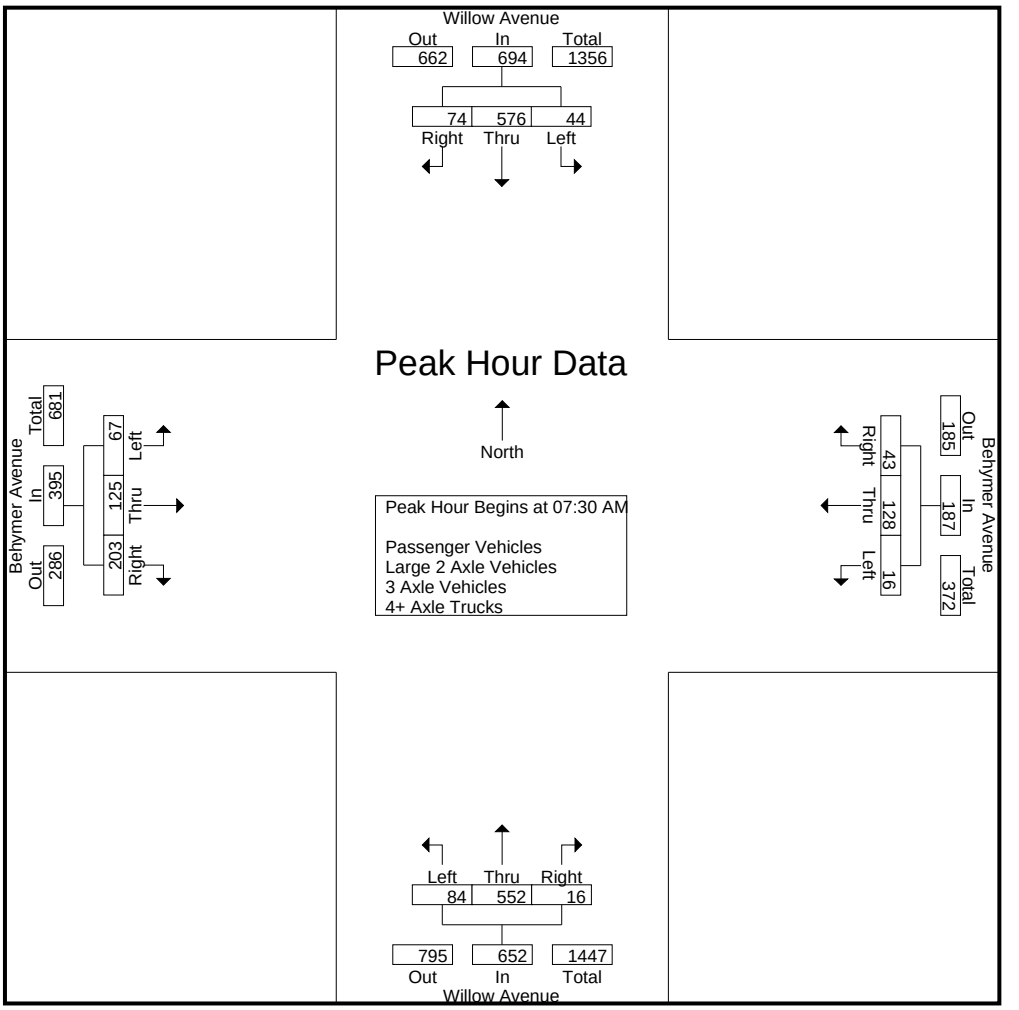
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	64	3	70	3	10	9	22	13	61	3	77	3	18	18	39	208
07:15 AM	7	67	7	81	2	16	18	36	17	88	3	108	11	16	26	53	278
07:30 AM	13	138	7	158	4	26	17	47	14	137	3	154	12	26	46	84	443
07:45 AM	13	160	22	195	3	28	13	44	27	225	6	258	32	31	50	113	610
Total	36	429	39	504	12	80	57	149	71	511	15	597	58	91	140	289	1539
08:00 AM	15	192	36	243	6	52	8	66	21	114	3	138	16	27	65	108	555
08:15 AM	3	86	9	98	3	22	5	30	22	76	4	102	7	41	42	90	320
08:30 AM	3	57	1	61	4	15	6	25	13	71	7	91	4	15	30	49	226
08:45 AM	3	71	1	75	1	18	9	28	16	72	6	94	3	14	18	35	232
Total	24	406	47	477	14	107	28	149	72	333	20	425	30	97	155	282	1333
Grand Total	60	835	86	981	26	187	85	298	143	844	35	1022	88	188	295	571	2872
Apprch %	6.1	85.1	8.8		8.7	62.8	28.5		14	82.6	3.4		15.4	32.9	51.7		
Total %	2.1	29.1	3	34.2	0.9	6.5	3	10.4	5	29.4	1.2	35.6	3.1	6.5	10.3	19.9	
Passenger Vehicles	58	815	84	957	26	180	80	286	139	821	34	994	87	180	292	559	2796
% Passenger Vehicles	96.7	97.6	97.7	97.6	100	96.3	94.1	96	97.2	97.3	97.1	97.3	98.9	95.7	99	97.9	97.4
Large 2 Axle Vehicles	2	12	2	16	0	7	4	11	4	13	1	18	1	6	3	10	55
% Large 2 Axle Vehicles	3.3	1.4	2.3	1.6	0	3.7	4.7	3.7	2.8	1.5	2.9	1.8	1.1	3.2	1	1.8	1.9
3 Axle Vehicles	0	5	0	5	0	0	1	1	0	7	0	7	0	2	0	2	15
% 3 Axle Vehicles	0	0.6	0	0.5	0	0	1.2	0.3	0	0.8	0	0.7	0	1.1	0	0.4	0.5
4+ Axle Trucks	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
% 4+ Axle Trucks	0	0.4	0	0.3	0	0	0	0	0	0.4	0	0.3	0	0	0	0	0.2

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	13	138	7	158	4	26	**17**	47	14	137	3	154	12	26	46	84	443
07:45 AM	13	160	22	195	3	28	13	44	**27**	**225**	**6**	**258**	**32**	31	50	**113**	**610**
08:00 AM	**15**	**192**	**36**	**243**	**6**	**52**	8	**66**	21	114	3	138	16	27	**65**	108	555
08:15 AM	3	86	9	98	3	22	5	30	22	76	4	102	7	**41**	42	90	320
Total Volume	44	576	74	694	16	128	43	187	84	552	16	652	67	125	203	395	1928
% App. Total	6.3	83	10.7		8.6	68.4	23		12.9	84.7	2.5		17	31.6	51.4		
PHF	.733	.750	.514	.714	.667	.615	.632	.708	.778	.613	.667	.632	.523	.762	.781	.874	.790

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	13	138	7	158	2	16	**18**	36	17	88	3	108	12	26	46	84
+15 mins.	13	160	22	195	4	26	17	47	14	137	3	154	**32**	31	50	**113**
+30 mins.	**15**	**192**	**36**	**243**	3	28	13	44	**27**	**225**	**6**	**258**	16	27	**65**	108
+45 mins.	3	86	9	98	**6**	**52**	8	**66**	21	114	3	138	7	**41**	42	90
Total Volume	44	576	74	694	15	122	56	193	79	564	15	658	67	125	203	395
% App. Total	6.3	83	10.7		7.8	63.2	29		12	85.7	2.3		17	31.6	51.4	
PHF	.733	.750	.514	.714	.625	.587	.778	.731	.731	.627	.625	.638	.523	.762	.781	.874

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

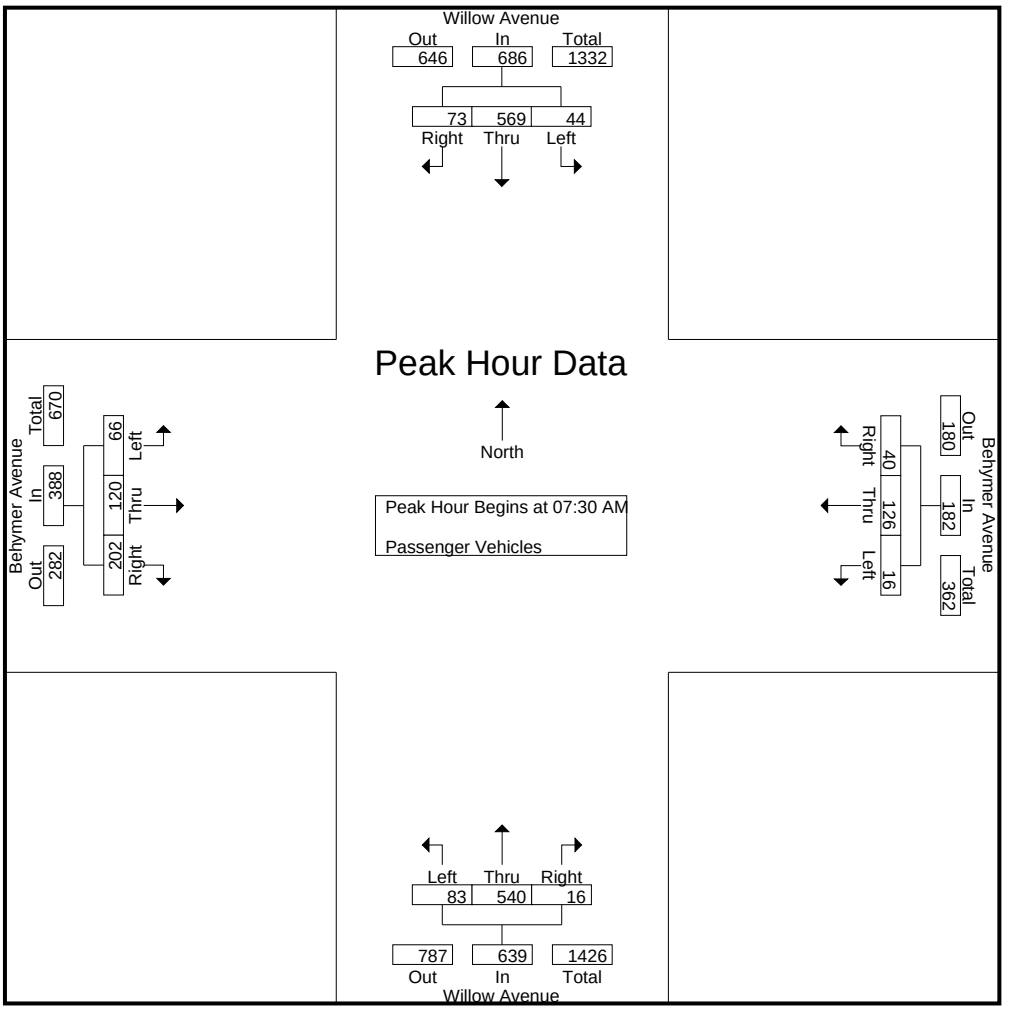
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	62	3	67	3	7	8	18	12	57	3	72	3	18	18	39	196
07:15 AM	6	62	6	74	2	16	17	35	16	86	3	105	11	16	25	52	266
07:30 AM	13	138	7	158	4	25	16	45	14	134	3	151	12	26	46	84	438
07:45 AM	13	158	22	193	3	28	13	44	27	224	6	257	32	28	50	110	604
Total	34	420	38	492	12	76	54	142	69	501	15	585	58	88	139	285	1504
08:00 AM	15	188	35	238	6	51	8	65	20	113	3	136	16	27	64	107	546
08:15 AM	3	85	9	97	3	22	3	28	22	69	4	95	6	39	42	87	307
08:30 AM	3	55	1	59	4	14	6	24	12	67	7	86	4	12	29	45	214
08:45 AM	3	67	1	71	1	17	9	27	16	71	5	92	3	14	18	35	225
Total	24	395	46	465	14	104	26	144	70	320	19	409	29	92	153	274	1292
Grand Total	58	815	84	957	26	180	80	286	139	821	34	994	87	180	292	559	2796
Apprch %	6.1	85.2	8.8		9.1	62.9	28		14	82.6	3.4		15.6	32.2	52.2		
Total %	2.1	29.1	3	34.2	0.9	6.4	2.9	10.2	5	29.4	1.2	35.6	3.1	6.4	10.4	20	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	13	138	7	158	4	25	**16**	45	14	134	3	151	12	26	46	84	438
07:45 AM	13	158	22	193	3	28	13	44	**27**	**224**	**6**	**257**	**32**	28	50	**110**	**604**
08:00 AM	**15**	**188**	**35**	**238**	**6**	**51**	8	**65**	20	113	3	136	16	27	**64**	107	546
08:15 AM	3	85	9	97	3	22	3	28	22	69	4	95	6	**39**	42	87	307
Total Volume	44	569	73	686	16	126	40	182	83	540	16	639	66	120	202	388	1895
% App. Total	6.4	82.9	10.6		8.8	69.2	22		13	84.5	2.5		17	30.9	52.1		
PHF	.733	.757	.521	.721	.667	.618	.625	.700	.769	.603	.667	.622	.516	.769	.789	.882	.784

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	13	138	7	158	4	25	**16**	45	14	134	3	151	12	26	46	84
+15 mins.	13	158	22	193	3	28	13	44	**27**	**224**	**6**	**257**	**32**	28	50	**110**
+30 mins.	**15**	**188**	**35**	**238**	**6**	**51**	8	**65**	20	113	3	136	16	27	**64**	107
+45 mins.	3	85	9	97	3	22	3	28	22	69	4	95	6	**39**	42	87
Total Volume	44	569	73	686	16	126	40	182	83	540	16	639	66	120	202	388
% App. Total	6.4	82.9	10.6		8.8	69.2	22		13	84.5	2.5		17	30.9	52.1	
PHF	.733	.757	.521	.721	.667	.618	.625	.700	.769	.603	.667	.622	.516	.769	.789	.882

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

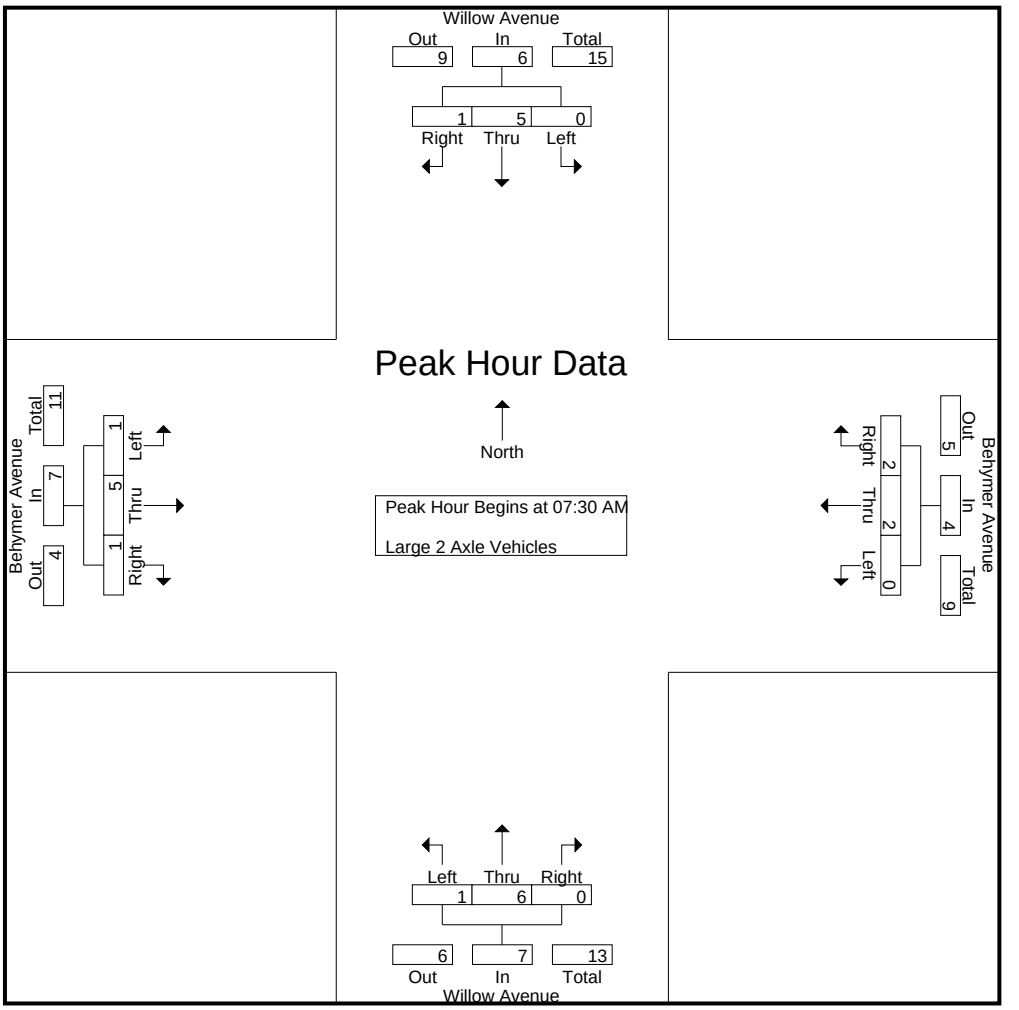
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	0	2	0	3	1	4	1	4	0	5	0	0	0	0	11
07:15 AM	1	4	1	6	0	0	1	1	1	2	0	3	0	0	1	1	11
07:30 AM	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4
Total	2	5	1	8	0	4	2	6	2	9	0	11	0	3	1	4	29
08:00 AM	0	4	1	5	0	1	0	1	1	0	0	1	0	0	1	1	8
08:15 AM	0	1	0	1	0	0	2	2	0	3	0	3	1	2	0	3	9
08:30 AM	0	0	0	0	0	1	0	1	1	1	0	2	0	1	1	2	5
08:45 AM	0	2	0	2	0	1	0	1	0	0	1	1	0	0	0	0	4
Total	0	7	1	8	0	3	2	5	2	4	1	7	1	3	2	6	26
Grand Total	2	12	2	16	0	7	4	11	4	13	1	18	1	6	3	10	55
Apprch %	12.5	75	12.5		0	63.6	36.4		22.2	72.2	5.6		10	60	30		
Total %	3.6	21.8	3.6	29.1	0	12.7	7.3	20	7.3	23.6	1.8	32.7	1.8	10.9	5.5	18.2	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	**1**	0	1	0	2	0	2	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	**3**	0	**3**	4
08:00 AM	0	**4**	**1**	**5**	0	1	0	1	**1**	0	0	1	0	0	**1**	1	8
08:15 AM	0	1	0	1	0	0	**2**	**2**	0	**3**	0	**3**	**1**	2	0	3	**9**
Total Volume	0	5	1	6	0	2	2	4	1	6	0	7	1	5	1	7	24
% App. Total	0	83.3	16.7		0	50	50		14.3	85.7	0		14.3	71.4	14.3		
PHF	.000	.313	.250	.300	.000	.500	.250	.500	.250	.500	.000	.583	.250	.417	.250	.583	.667

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	**1**	0	1	0	2	0	2	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	**3**	0	**3**
+30 mins.	0	**4**	**1**	**5**	0	1	0	1	**1**	0	0	1	0	0	**1**	1
+45 mins.	0	1	0	1	0	0	**2**	**2**	0	**3**	0	**3**	**1**	2	0	3
Total Volume	0	5	1	6	0	2	2	4	1	6	0	7	1	5	1	7
% App. Total	0	83.3	16.7		0	50	50		14.3	85.7	0		14.3	71.4	14.3	
PHF	.000	.313	.250	.300	.000	.500	.250	.500	.250	.500	.000	.583	.250	.417	.250	.583

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

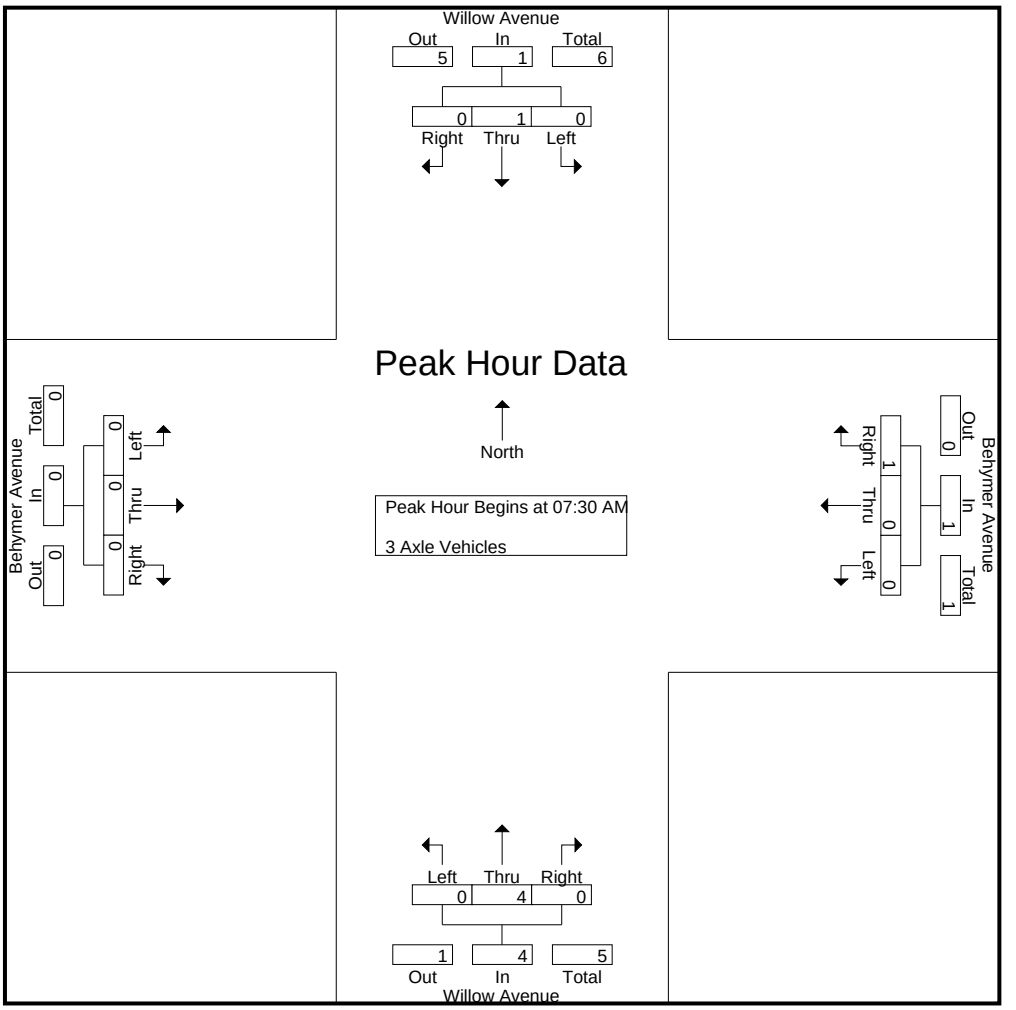
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:30 AM	0	1	0	1	0	0	0	0	0	3	0	3	0	2	0	2	6
08:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	3	0	0	0	0	0	7	0	7	0	2	0	2	12
Grand Total	0	5	0	5	0	0	1	1	0	7	0	7	0	2	0	2	15
Apprch %	0	100	0		0	0	100		0	100	0		0	100	0		
Total %	0	33.3	0	33.3	0	0	6.7	6.7	0	46.7	0	46.7	0	13.3	0	13.3	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	**3**	0	**3**	0	0	0	0	**3**
Total Volume	0	1	0	1	0	0	1	1	0	4	0	4	0	0	0	0	6
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.333	.000	.333	.000	.000	.000	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	**3**	0	**3**	0	0	0	0
Total Volume	0	1	0	1	0	0	1	1	0	4	0	4	0	0	0	0
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.333	.000	.333	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

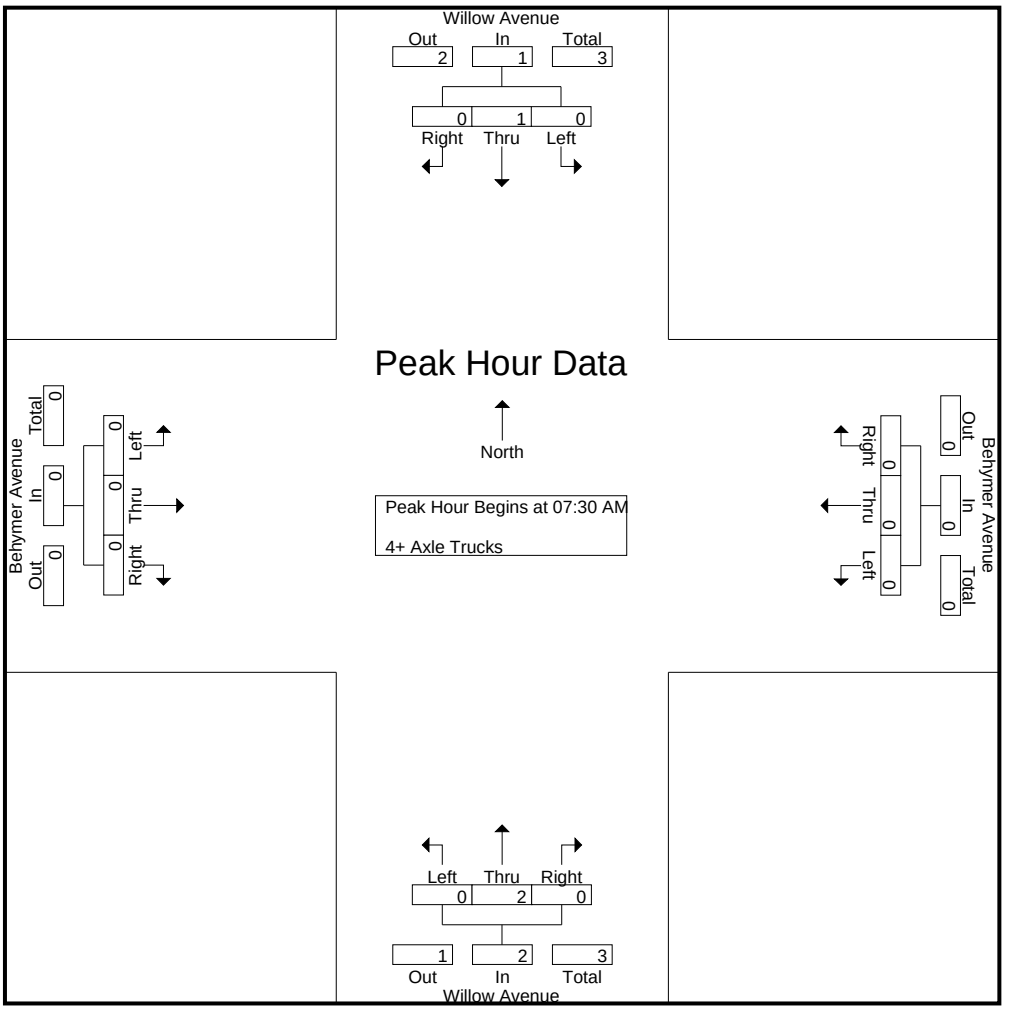
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
Grand Total	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	50	0	50	0	0	0	0	0	50	0	50	0	0	0	0	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

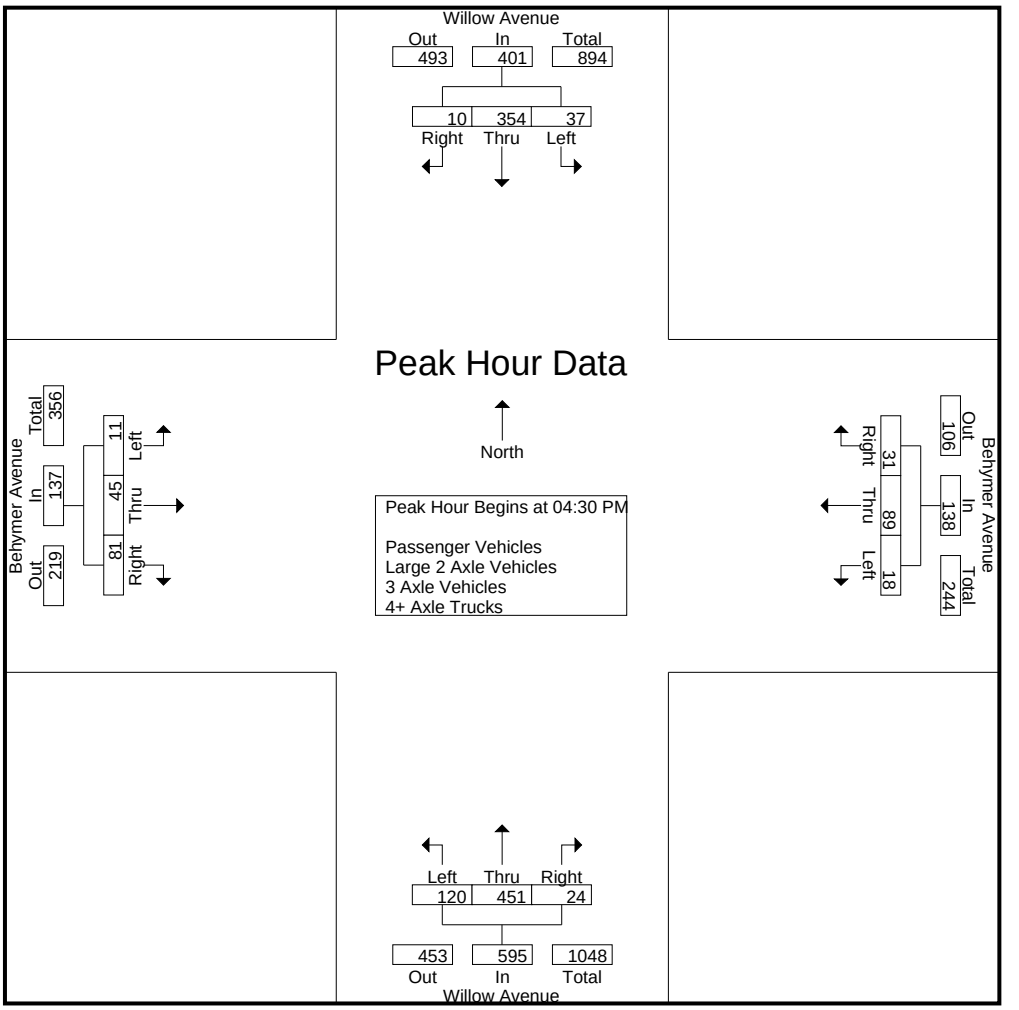
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	9	93	4	106	6	20	5	31	29	95	13	137	4	18	25	47	321
04:15 PM	6	102	4	112	9	12	6	27	28	82	5	115	2	9	18	29	283
04:30 PM	4	62	2	68	4	21	6	31	28	112	4	144	1	12	19	32	275
04:45 PM	15	101	3	119	5	24	7	36	35	108	11	154	5	12	22	39	348
Total	34	358	13	405	24	77	24	125	120	397	33	550	12	51	84	147	1227
05:00 PM	8	99	2	109	2	20	9	31	30	88	4	122	2	5	19	26	288
05:15 PM	10	92	3	105	7	24	9	40	27	143	5	175	3	16	21	40	360
05:30 PM	4	64	0	68	5	20	6	31	25	98	6	129	2	11	29	42	270
05:45 PM	6	80	6	92	1	22	8	31	21	110	3	134	2	16	34	52	309
Total	28	335	11	374	15	86	32	133	103	439	18	560	9	48	103	160	1227
Grand Total	62	693	24	779	39	163	56	258	223	836	51	1110	21	99	187	307	2454
Apprch %	8	89	3.1		15.1	63.2	21.7		20.1	75.3	4.6		6.8	32.2	60.9		
Total %	2.5	28.2	1	31.7	1.6	6.6	2.3	10.5	9.1	34.1	2.1	45.2	0.9	4	7.6	12.5	
Passenger Vehicles	61	684	24	769	39	162	56	257	220	836	50	1106	21	99	185	305	2437
% Passenger Vehicles	98.4	98.7	100	98.7	100	99.4	100	99.6	98.7	100	98	99.6	100	100	98.9	99.3	99.3
Large 2 Axle Vehicles	1	8	0	9	0	0	0	0	3	0	1	4	0	0	2	2	15
% Large 2 Axle Vehicles	1.6	1.2	0	1.2	0	0	0	0	1.3	0	2	0.4	0	0	1.1	0.7	0.6
3 Axle Vehicles	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	0	0	0	0	0.6	0	0.4	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	4	62	2	68	4	21	6	31	28	112	4	144	1	12	19	32	275
04:45 PM	**15**	**101**	**3**	**119**	5	**24**	7	36	**35**	108	**11**	154	**5**	12	**22**	39	348
05:00 PM	8	99	2	109	2	20	**9**	31	30	88	4	122	2	5	19	26	288
05:15 PM	10	92	3	105	**7**	24	9	**40**	27	**143**	5	**175**	3	**16**	21	**40**	**360**
Total Volume	37	354	10	401	18	89	31	138	120	451	24	595	11	45	81	137	1271
% App. Total	9.2	88.3	2.5		13	64.5	22.5		20.2	75.8	4		8	32.8	59.1		
PHF	.617	.876	.833	.842	.643	.927	.861	.863	.857	.788	.545	.850	.550	.703	.920	.856	.883

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				04:30 PM				05:00 PM			
+0 mins.	6	**102**	**4**	112	4	21	6	31	28	112	4	144	2	5	19	26
+15 mins.	4	62	2	68	5	**24**	7	36	**35**	108	**11**	154	**3**	**16**	21	40
+30 mins.	**15**	101	3	**119**	2	20	**9**	31	30	88	4	122	2	11	29	42
+45 mins.	8	99	2	109	**7**	24	9	**40**	27	**143**	5	**175**	2	16	**34**	**52**
Total Volume	33	364	11	408	18	89	31	138	120	451	24	595	9	48	103	160
% App. Total	8.1	89.2	2.7		13	64.5	22.5		20.2	75.8	4		5.6	30	64.4	
PHF	.550	.892	.688	.857	.643	.927	.861	.863	.857	.788	.545	.850	.750	.750	.757	.769

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

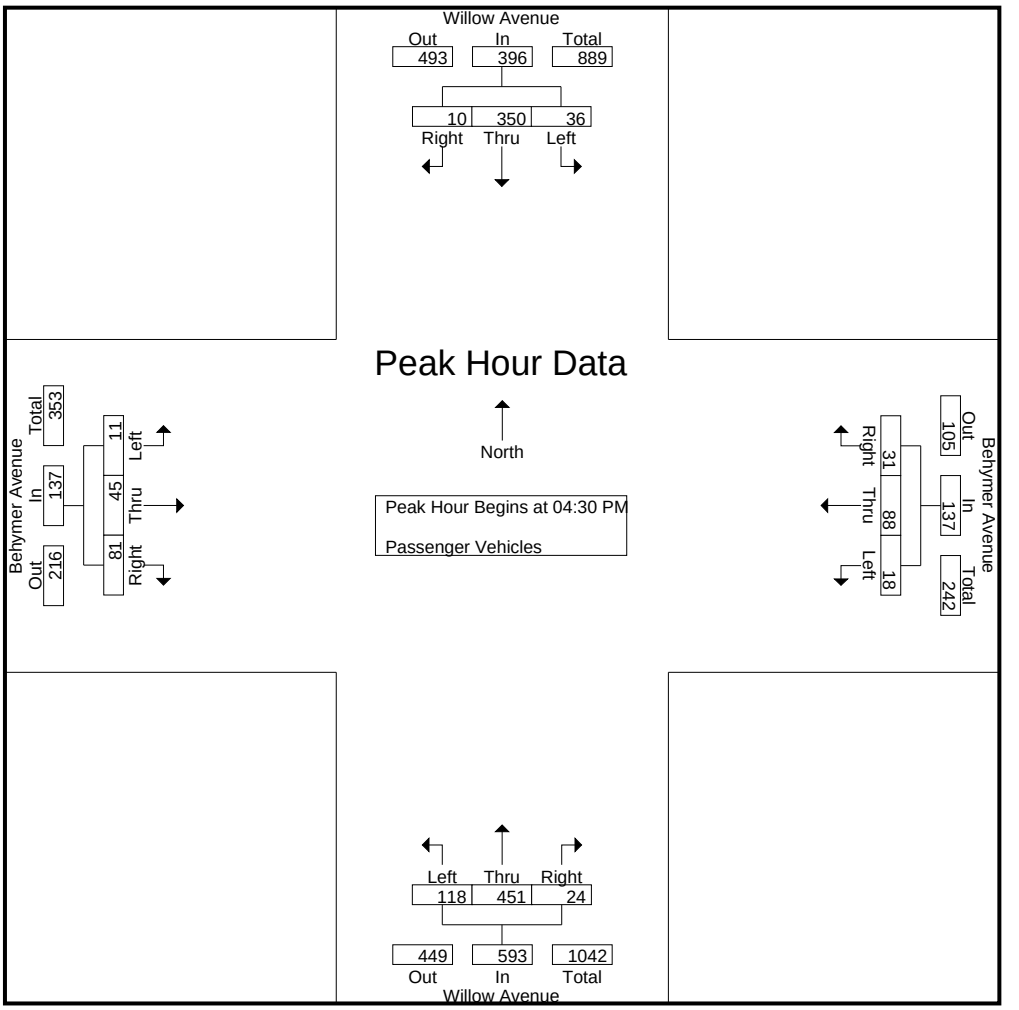
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	9	91	4	104	6	20	5	31	29	95	13	137	4	18	23	45	317
04:15 PM	6	100	4	110	9	12	6	27	27	82	4	113	2	9	18	29	279
04:30 PM	4	61	2	67	4	21	6	31	27	112	4	143	1	12	19	32	273
04:45 PM	15	101	3	119	5	24	7	36	35	108	11	154	5	12	22	39	348
Total	34	353	13	400	24	77	24	125	118	397	32	547	12	51	82	145	1217
05:00 PM	8	97	2	107	2	19	9	30	30	88	4	122	2	5	19	26	285
05:15 PM	9	91	3	103	7	24	9	40	26	143	5	174	3	16	21	40	357
05:30 PM	4	64	0	68	5	20	6	31	25	98	6	129	2	11	29	42	270
05:45 PM	6	79	6	91	1	22	8	31	21	110	3	134	2	16	34	52	308
Total	27	331	11	369	15	85	32	132	102	439	18	559	9	48	103	160	1220
Grand Total	61	684	24	769	39	162	56	257	220	836	50	1106	21	99	185	305	2437
Apprch %	7.9	88.9	3.1		15.2	63	21.8		19.9	75.6	4.5		6.9	32.5	60.7		
Total %	2.5	28.1	1	31.6	1.6	6.6	2.3	10.5	9	34.3	2.1	45.4	0.9	4.1	7.6	12.5	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	4	61	2	67	4	21	6	31	27	112	4	143	1	12	19	32	273
04:45 PM	**15**	**101**	**3**	**119**	5	**24**	7	36	**35**	108	**11**	154	**5**	12	**22**	39	348
05:00 PM	8	97	2	107	2	19	**9**	30	30	88	4	122	2	5	19	26	285
05:15 PM	9	91	3	103	**7**	24	9	**40**	26	**143**	5	**174**	3	**16**	21	**40**	**357**
Total Volume	36	350	10	396	18	88	31	137	118	451	24	593	11	45	81	137	1263
% App. Total	9.1	88.4	2.5		13.1	64.2	22.6		19.9	76.1	4		8	32.8	59.1		
PHF	.600	.866	.833	.832	.643	.917	.861	.856	.843	.788	.545	.852	.550	.703	.920	.856	.884

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	4	61	2	67	4	21	6	31	27	112	4	143	1	12	19	32
+15 mins.	**15**	**101**	**3**	**119**	5	**24**	7	36	**35**	108	**11**	154	**5**	12	**22**	39
+30 mins.	8	97	2	107	2	19	**9**	30	30	88	4	122	2	5	19	26
+45 mins.	9	91	3	103	**7**	24	9	**40**	26	**143**	5	**174**	3	**16**	21	**40**
Total Volume	36	350	10	396	18	88	31	137	118	451	24	593	11	45	81	137
% App. Total	9.1	88.4	2.5		13.1	64.2	22.6		19.9	76.1	4		8	32.8	59.1	
PHF	.600	.866	.833	.832	.643	.917	.861	.856	.843	.788	.545	.852	.550	.703	.920	.856

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

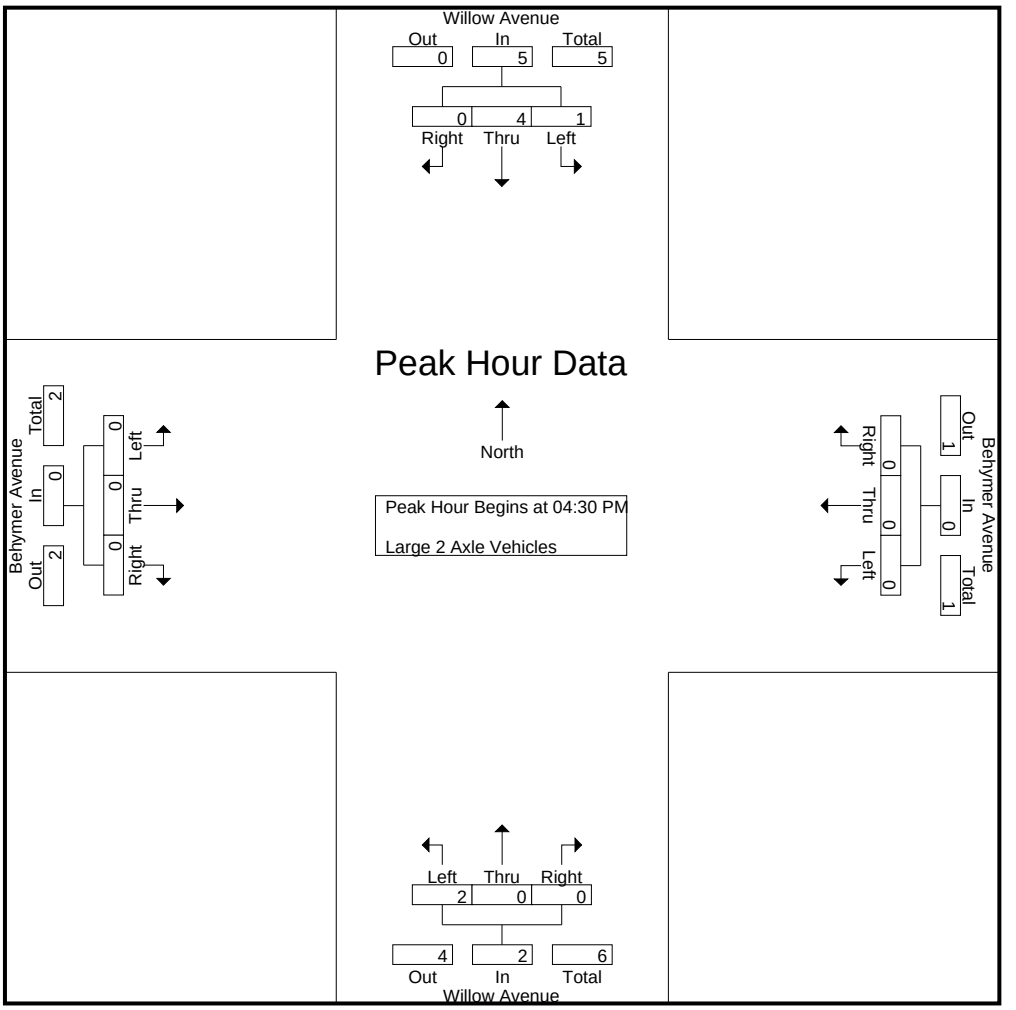
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	2	3
04:15 PM	0	2	0	2	0	0	0	0	1	0	1	2	0	0	0	0	4
04:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	0	4	0	0	0	0	2	0	1	3	0	0	2	2	9
05:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	1	1	0	2	0	0	0	0	1	0	0	1	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	4	0	5	0	0	0	0	1	0	0	1	0	0	0	0	6
Grand Total	1	8	0	9	0	0	0	0	3	0	1	4	0	0	2	2	15
Apprch %	11.1	88.9	0		0	0	0		75	0	25		0	0	100		
Total %	6.7	53.3	0	60	0	0	0	0	20	0	6.7	26.7	0	0	13.3	13.3	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	1	0	1	0	0	0	0	**1**	0	0	**1**	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	**1**	1	0	2	0	0	0	0	1	0	0	1	0	0	0	0	**3**
Total Volume	1	4	0	5	0	0	0	0	2	0	0	2	0	0	0	0	7
% App. Total	20	80	0		0	0	0		100	0	0		0	0	0		
PHF	.250	.500	.000	.625	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.583

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	1	0	1	0	0	0	0	**1**	0	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	**1**	1	0	2	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	1	4	0	5	0	0	0	0	2	0	0	2	0	0	0	0
% App. Total	20	80	0		0	0	0		100	0	0		0	0	0	
PHF	.250	.500	.000	.625	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

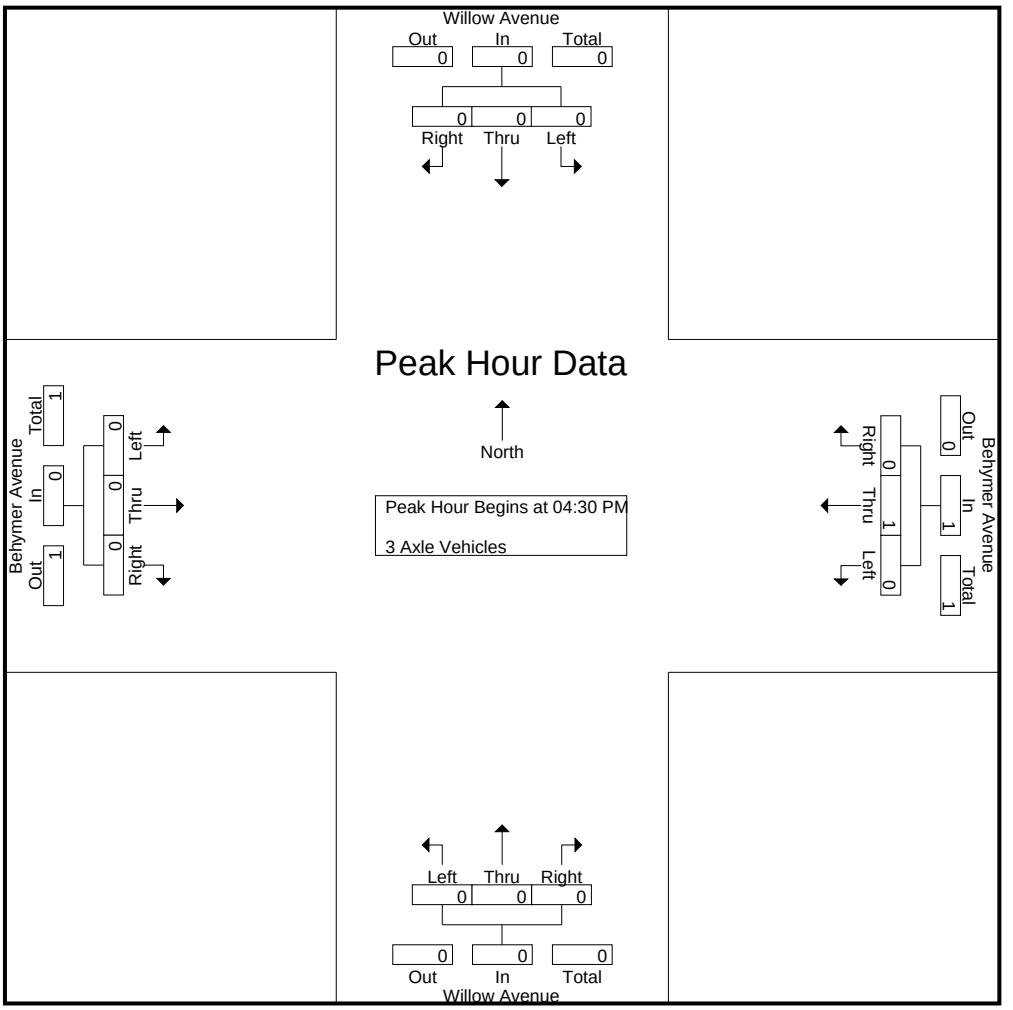
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Apprch %	0	0	0		0	100	0		0	0	0		0	0	0		
Total %	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

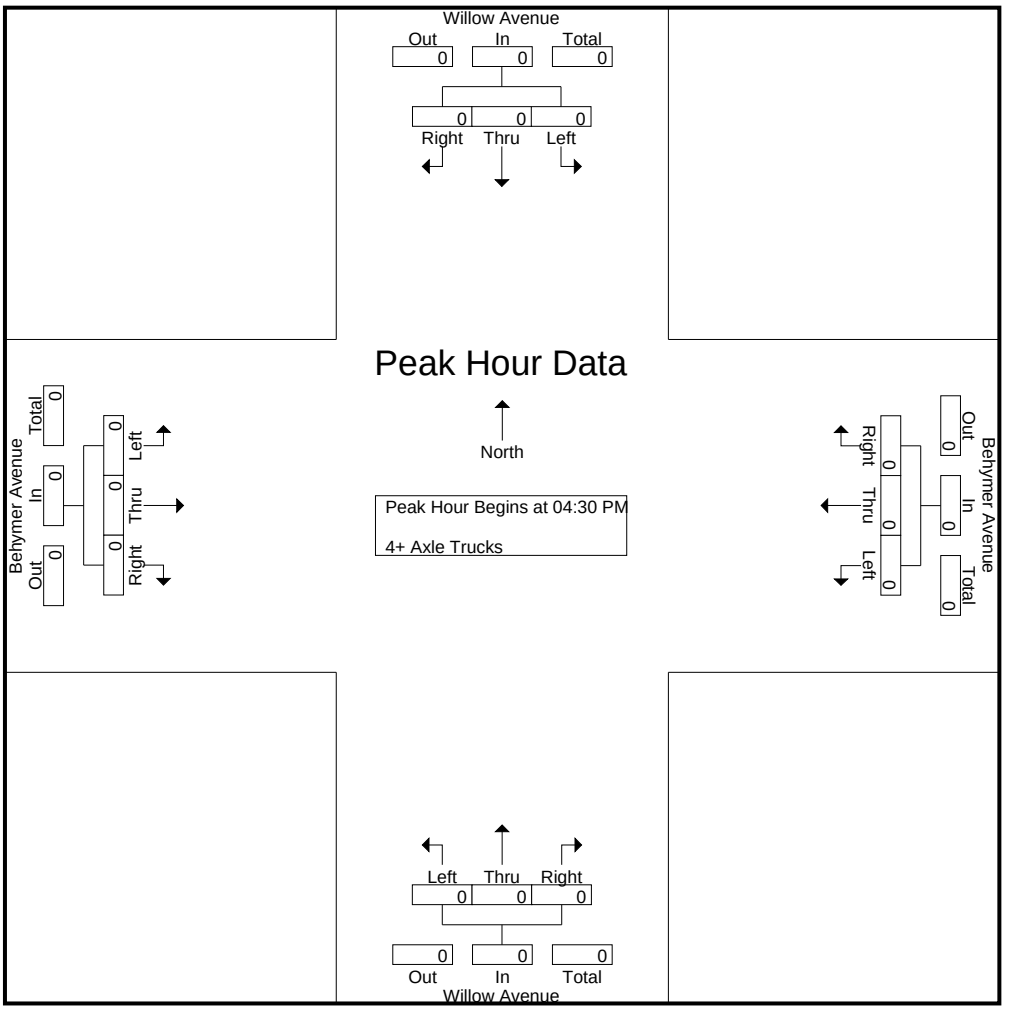
	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Willow Avenue Southbound				Behymer Avenue Westbound				Willow Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 02_CVS_Willow_Beh PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Willow Avenue
E/W: Behymer Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Willow Avenue	East Leg Behymer Avenue	South Leg Willow Avenue	West Leg Behymer Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	2	2
7:15 AM	0	0	0	1	1
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	4	4

	North Leg Willow Avenue	East Leg Behymer Avenue	South Leg Willow Avenue	West Leg Behymer Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Willow Avenue
E/W: Behymer Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Willow Avenue			Westbound Behymer Avenue			Northbound Willow Avenue			Eastbound Behymer Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	2	0	0	0	0	0	6	0	1	0	0	9
7:30 AM	0	0	1	0	0	0	0	6	0	0	0	0	7
7:45 AM	0	2	0	0	0	0	0	5	0	0	0	0	7
8:00 AM	0	4	0	0	0	0	0	4	0	0	0	0	8
8:15 AM	0	2	1	0	0	1	3	2	0	0	0	0	9
8:30 AM	0	4	0	0	0	0	0	1	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	1	3	0	0	0	1	5
TOTAL VOLUMES:	0	16	2	0	0	1	4	27	0	1	0	1	52

	Southbound Willow Avenue			Westbound Behymer Avenue			Northbound Willow Avenue			Eastbound Behymer Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:45 PM	0	3	0	0	0	0	0	1	0	0	0	0	4
TOTAL VOLUMES:	0	9	1	0	0	0	0	5	0	0	0	0	15

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

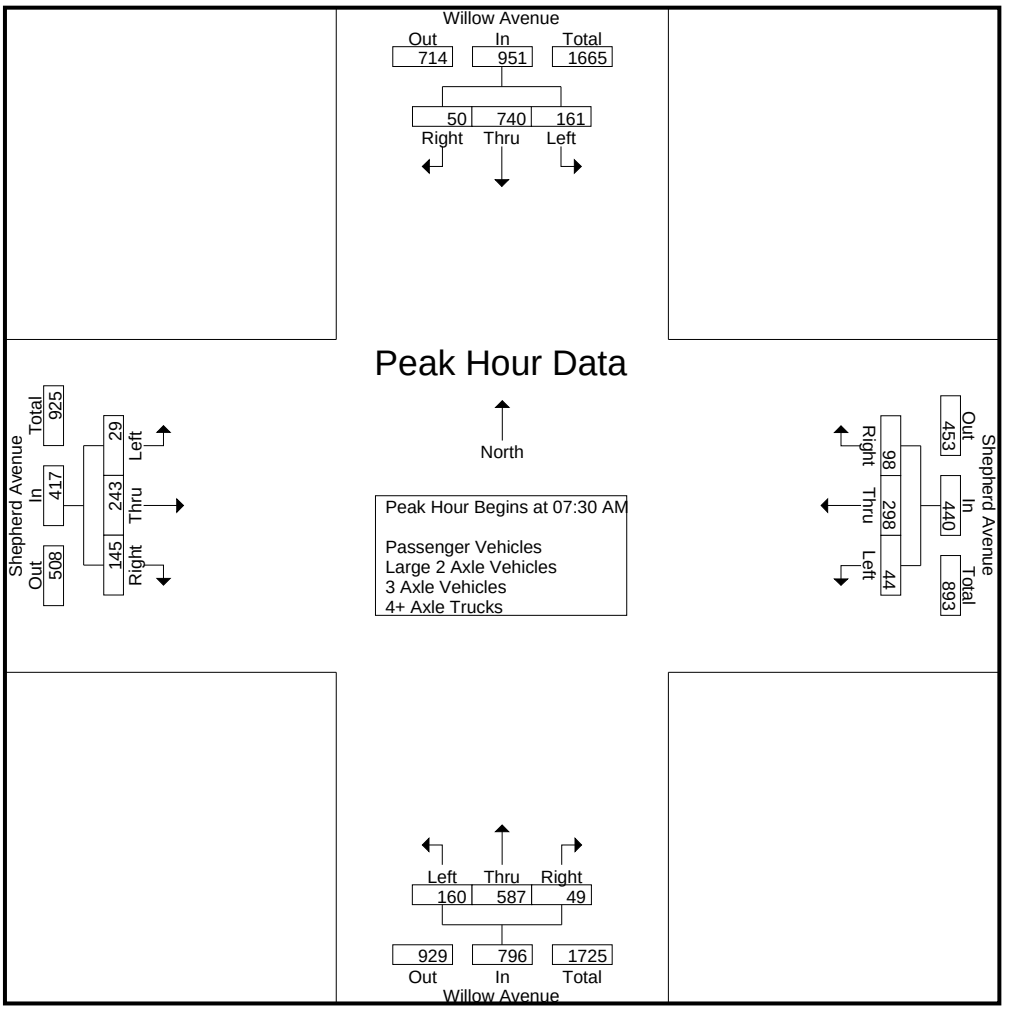
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	22	103	6	131	8	70	15	93	21	69	9	99	2	39	20	61	384
07:15 AM	27	109	6	142	6	62	21	89	34	101	16	151	6	67	27	100	482
07:30 AM	42	207	10	259	10	70	22	102	31	175	16	222	1	70	38	109	692
07:45 AM	45	176	14	235	17	85	29	131	42	193	7	242	15	74	43	132	740
Total	136	595	36	767	41	287	87	415	128	538	48	714	24	250	128	402	2298
08:00 AM	43	196	14	253	8	70	24	102	50	113	18	181	7	50	24	81	617
08:15 AM	31	161	12	204	9	73	23	105	37	106	8	151	6	49	40	95	555
08:30 AM	23	95	9	127	12	56	19	87	30	91	8	129	2	54	20	76	419
08:45 AM	26	98	7	131	8	77	22	107	28	94	2	124	10	45	25	80	442
Total	123	550	42	715	37	276	88	401	145	404	36	585	25	198	109	332	2033
Grand Total	259	1145	78	1482	78	563	175	816	273	942	84	1299	49	448	237	734	4331
Apprch %	17.5	77.3	5.3		9.6	69	21.4		21	72.5	6.5		6.7	61	32.3		
Total %	6	26.4	1.8	34.2	1.8	13	4	18.8	6.3	21.8	1.9	30	1.1	10.3	5.5	16.9	
Passenger Vehicles	252	1127	75	1454	78	557	169	804	264	913	82	1259	47	439	232	718	4235
% Passenger Vehicles	97.3	98.4	96.2	98.1	100	98.9	96.6	98.5	96.7	96.9	97.6	96.9	95.9	98	97.9	97.8	97.8
Large 2 Axle Vehicles	5	13	1	19	0	4	6	10	9	17	2	28	2	8	4	14	71
% Large 2 Axle Vehicles	1.9	1.1	1.3	1.3	0	0.7	3.4	1.2	3.3	1.8	2.4	2.2	4.1	1.8	1.7	1.9	1.6
3 Axle Vehicles	2	1	1	4	0	1	0	1	0	6	0	6	0	1	0	1	12
% 3 Axle Vehicles	0.8	0.1	1.3	0.3	0	0.2	0	0.1	0	0.6	0	0.5	0	0.2	0	0.1	0.3
4+ Axle Trucks	0	4	1	5	0	1	0	1	0	6	0	6	0	0	1	1	13
% 4+ Axle Trucks	0	0.3	1.3	0.3	0	0.2	0	0.1	0	0.6	0	0.5	0	0	0.4	0.1	0.3

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	42	**207**	10	**259**	10	70	22	102	31	175	16	222	1	70	38	109	692
07:45 AM	**45**	176	**14**	235	**17**	**85**	**29**	**131**	42	**193**	7	**242**	**15**	**74**	**43**	**132**	**740**
08:00 AM	43	196	14	253	8	70	24	102	**50**	113	**18**	181	7	50	24	81	617
08:15 AM	31	161	12	204	9	73	23	105	37	106	8	151	6	49	40	95	555
Total Volume	161	740	50	951	44	298	98	440	160	587	49	796	29	243	145	417	2604
% App. Total	16.9	77.8	5.3		10	67.7	22.3		20.1	73.7	6.2		7	58.3	34.8		
PHF	.894	.894	.893	.918	.647	.876	.845	.840	.800	.760	.681	.822	.483	.821	.843	.790	.880

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:15 AM				07:15 AM			
+0 mins.	42	**207**	10	**259**	10	70	22	102	34	101	16	151	6	67	27	100
+15 mins.	**45**	176	**14**	235	**17**	**85**	**29**	**131**	31	175	16	222	1	70	38	109
+30 mins.	43	196	14	253	8	70	24	102	42	**193**	7	**242**	**15**	**74**	**43**	**132**
+45 mins.	31	161	12	204	9	73	23	105	**50**	113	**18**	181	7	50	24	81
Total Volume	161	740	50	951	44	298	98	440	157	582	57	796	29	261	132	422
% App. Total	16.9	77.8	5.3		10	67.7	22.3		19.7	73.1	7.2		6.9	61.8	31.3	
PHF	.894	.894	.893	.918	.647	.876	.845	.840	.785	.754	.792	.822	.483	.882	.767	.799

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

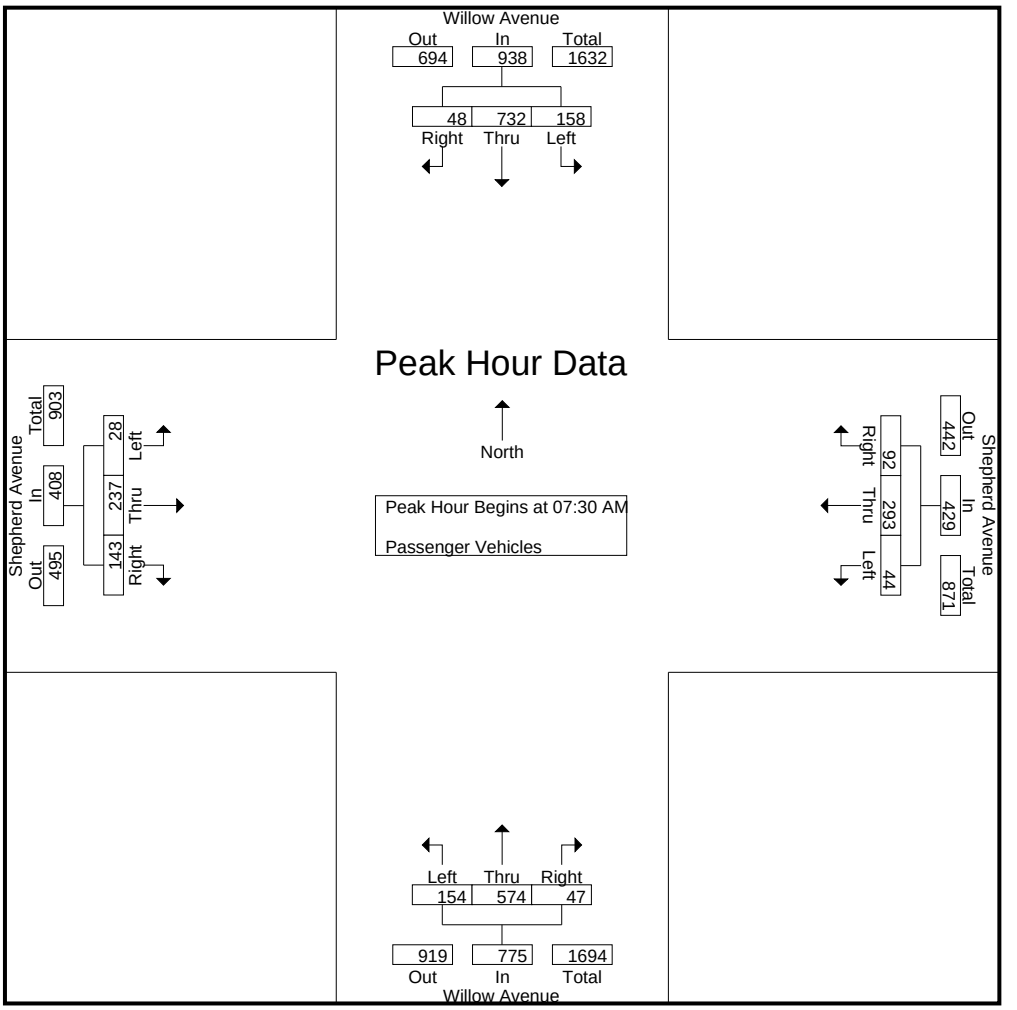
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	21	102	6	129	8	70	15	93	21	64	9	94	2	39	19	60	376
07:15 AM	27	104	6	137	6	61	21	88	32	98	16	146	6	66	26	98	469
07:30 AM	42	204	9	255	10	70	22	102	29	173	16	218	1	66	38	105	680
07:45 AM	44	175	14	233	17	84	29	130	42	191	5	238	15	74	42	131	732
Total	134	585	35	754	41	285	87	413	124	526	46	696	24	245	125	394	2257
08:00 AM	42	192	13	247	8	68	23	99	48	108	18	174	7	49	24	80	600
08:15 AM	30	161	12	203	9	71	18	98	35	102	8	145	5	48	39	92	538
08:30 AM	21	94	9	124	12	56	19	87	29	85	8	122	2	52	19	73	406
08:45 AM	25	95	6	126	8	77	22	107	28	92	2	122	9	45	25	79	434
Total	118	542	40	700	37	272	82	391	140	387	36	563	23	194	107	324	1978
Grand Total	252	1127	75	1454	78	557	169	804	264	913	82	1259	47	439	232	718	4235
Apprch %	17.3	77.5	5.2		9.7	69.3	21		21	72.5	6.5		6.5	61.1	32.3		
Total %	6	26.6	1.8	34.3	1.8	13.2	4	19	6.2	21.6	1.9	29.7	1.1	10.4	5.5	17	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	42	**204**	9	**255**	10	70	22	102	29	173	16	218	1	66	38	105	680
07:45 AM	**44**	175	**14**	233	**17**	**84**	**29**	**130**	42	**191**	5	**238**	**15**	**74**	**42**	**131**	**732**
08:00 AM	42	192	13	247	8	68	23	99	**48**	108	**18**	174	7	49	24	80	600
08:15 AM	30	161	12	203	9	71	18	98	35	102	8	145	5	48	39	92	538
Total Volume	158	732	48	938	44	293	92	429	154	574	47	775	28	237	143	408	2550
% App. Total	16.8	78	5.1		10.3	68.3	21.4		19.9	74.1	6.1		6.9	58.1	35		
PHF	.898	.897	.857	.920	.647	.872	.793	.825	.802	.751	.653	.814	.467	.801	.851	.779	.871

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	42	**204**	9	**255**	10	70	22	102	29	173	16	218	1	66	38	105
+15 mins.	**44**	175	**14**	233	**17**	**84**	**29**	**130**	42	**191**	5	**238**	**15**	**74**	**42**	**131**
+30 mins.	42	192	13	247	8	68	23	99	**48**	108	**18**	174	7	49	24	80
+45 mins.	30	161	12	203	9	71	18	98	35	102	8	145	5	48	39	92
Total Volume	158	732	48	938	44	293	92	429	154	574	47	775	28	237	143	408
% App. Total	16.8	78	5.1		10.3	68.3	21.4		19.9	74.1	6.1		6.9	58.1	35	
PHF	.898	.897	.857	.920	.647	.872	.793	.825	.802	.751	.653	.814	.467	.801	.851	.779

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

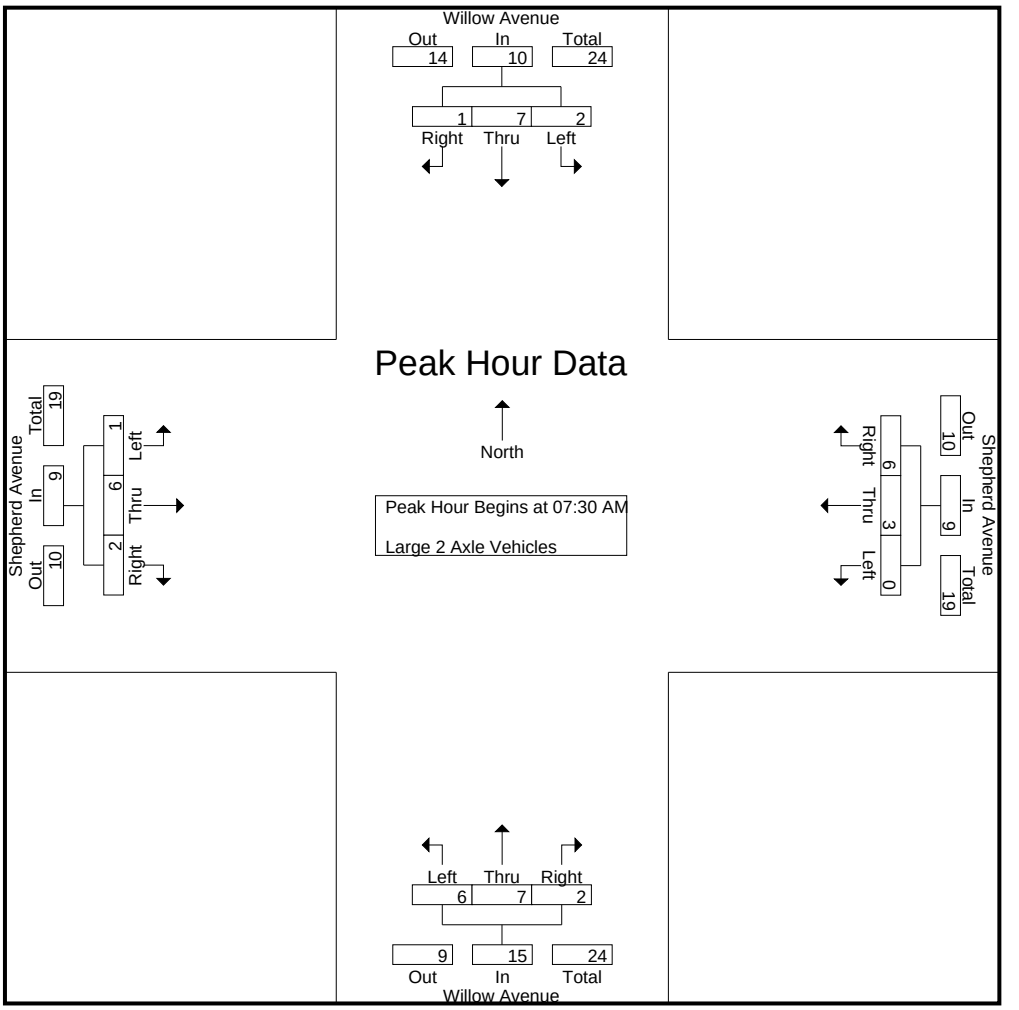
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	0	0	0	0	4	0	4	0	0	1	1	6
07:15 AM	0	4	0	4	0	1	0	1	2	3	0	5	0	1	1	2	12
07:30 AM	0	3	1	4	0	0	0	0	2	1	0	3	0	4	0	4	11
07:45 AM	0	1	0	1	0	1	0	1	0	2	2	4	0	0	1	1	7
Total	1	8	1	10	0	2	0	2	4	10	2	16	0	5	3	8	36
08:00 AM	1	3	0	4	0	0	1	1	2	2	0	4	0	1	0	1	10
08:15 AM	1	0	0	1	0	2	5	7	2	2	0	4	1	1	1	3	15
08:30 AM	1	0	0	1	0	0	0	0	1	3	0	4	0	1	0	1	6
08:45 AM	1	2	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
Total	4	5	0	9	0	2	6	8	5	7	0	12	2	3	1	6	35
Grand Total	5	13	1	19	0	4	6	10	9	17	2	28	2	8	4	14	71
Apprch %	26.3	68.4	5.3		0	40	60		32.1	60.7	7.1		14.3	57.1	28.6		
Total %	7	18.3	1.4	26.8	0	5.6	8.5	14.1	12.7	23.9	2.8	39.4	2.8	11.3	5.6	19.7	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**3**	**1**	**4**	0	0	0	0	**2**	1	0	3	0	**4**	0	**4**	11
07:45 AM	0	1	0	1	0	1	0	1	0	**2**	**2**	**4**	0	0	**1**	1	7
08:00 AM	**1**	3	0	4	0	0	1	1	2	2	0	4	0	1	0	1	10
08:15 AM	1	0	0	1	0	**2**	**5**	**7**	2	2	0	4	**1**	1	1	3	**15**
Total Volume	2	7	1	10	0	3	6	9	6	7	2	15	1	6	2	9	43
% App. Total	20	70	10		0	33.3	66.7		40	46.7	13.3		11.1	66.7	22.2		
PHF	.500	.583	.250	.625	.000	.375	.300	.321	.750	.875	.250	.938	.250	.375	.500	.563	.717

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	**3**	**1**	**4**	0	0	0	0	**2**	1	0	3	0	**4**	0	**4**
+15 mins.	0	1	0	1	0	1	0	1	0	**2**	**2**	**4**	0	0	**1**	1
+30 mins.	**1**	3	0	4	0	0	1	1	2	2	0	4	0	1	0	1
+45 mins.	1	0	0	1	0	**2**	**5**	**7**	2	2	0	4	**1**	1	1	3
Total Volume	2	7	1	10	0	3	6	9	6	7	2	15	1	6	2	9
% App. Total	20	70	10		0	33.3	66.7		40	46.7	13.3		11.1	66.7	22.2	
PHF	.500	.583	.250	.625	.000	.375	.300	.321	.750	.875	.250	.938	.250	.375	.500	.563

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

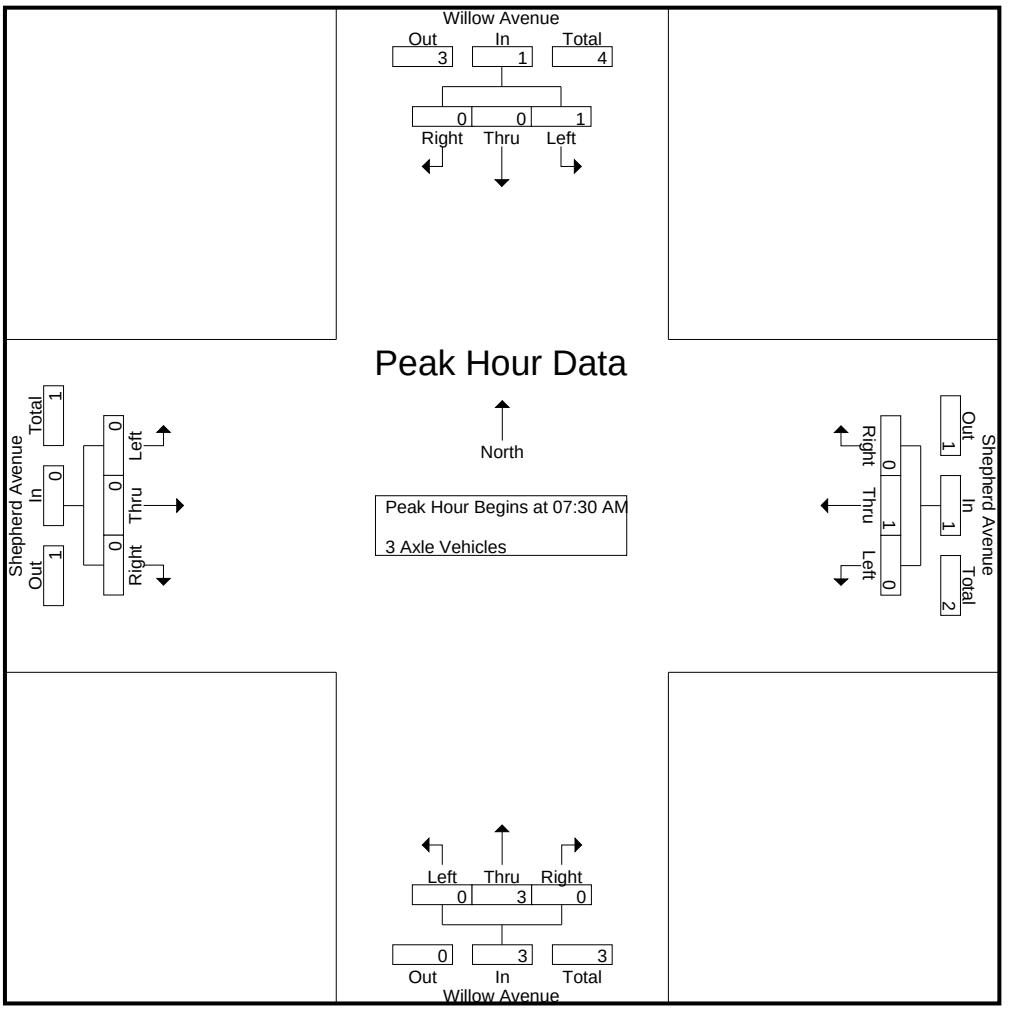
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	1	0	0	1	0	0	0	0	0	3	0	3	0	1	0	1	5
08:45 AM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	1	1	3	0	1	0	1	0	6	0	6	0	1	0	1	11
Grand Total	2	1	1	4	0	1	0	1	0	6	0	6	0	1	0	1	12
Apprch %	50	25	25		0	100	0		0	100	0		0	100	0		
Total %	16.7	8.3	8.3	33.3	0	8.3	0	8.3	0	50	0	50	0	8.3	0	8.3	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	**1**	0	**1**	0	**2**	0	**2**	0	0	0	0	**3**
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	1	0	0	1	0	1	0	1	0	3	0	3	0	0	0	0	5
% App. Total	100	0	0		0	100	0		0	100	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.250	.000	.250	.000	.375	.000	.375	.000	.000	.000	.000	.417

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	**1**	0	**2**	0	**2**	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	1	0	0	1	0	1	0	1	0	3	0	3	0	0	0	0
% App. Total	100	0	0		0	100	0		0	100	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.250	.000	.250	.000	.375	.000	.375	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

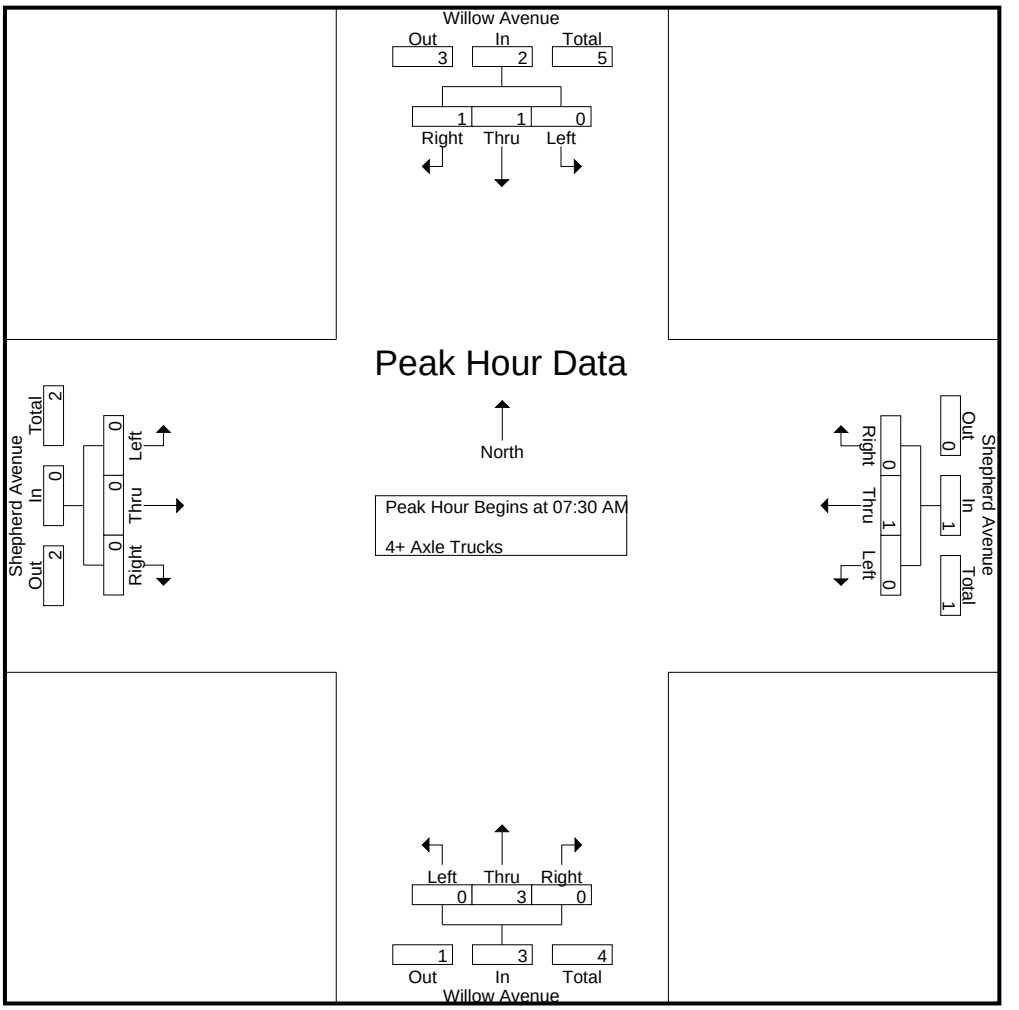
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
08:00 AM	0	1	1	2	0	1	0	1	0	1	0	1	0	0	0	0	4
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total	0	2	1	3	0	1	0	1	0	4	0	4	0	0	1	1	9
Grand Total	0	4	1	5	0	1	0	1	0	6	0	6	0	0	1	1	13
Apprch %	0	80	20		0	100	0		0	100	0		0	0	100		
Total %	0	30.8	7.7	38.5	0	7.7	0	7.7	0	46.2	0	46.2	0	0	7.7	7.7	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	**1**	**1**	**2**	0	**1**	0	**1**	0	1	0	1	0	0	0	0	**4**
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	1	1	2	0	1	0	1	0	3	0	3	0	0	0	0	6
% App. Total	0	50	50		0	100	0		0	100	0		0	0	0		
PHF	.000	.250	.250	.250	.000	.250	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	**1**	**1**	**2**	0	**1**	0	**1**	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	1	1	2	0	1	0	1	0	3	0	3	0	0	0	0
% App. Total	0	50	50		0	100	0		0	100	0		0	0	0	
PHF	.000	.250	.250	.250	.000	.250	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

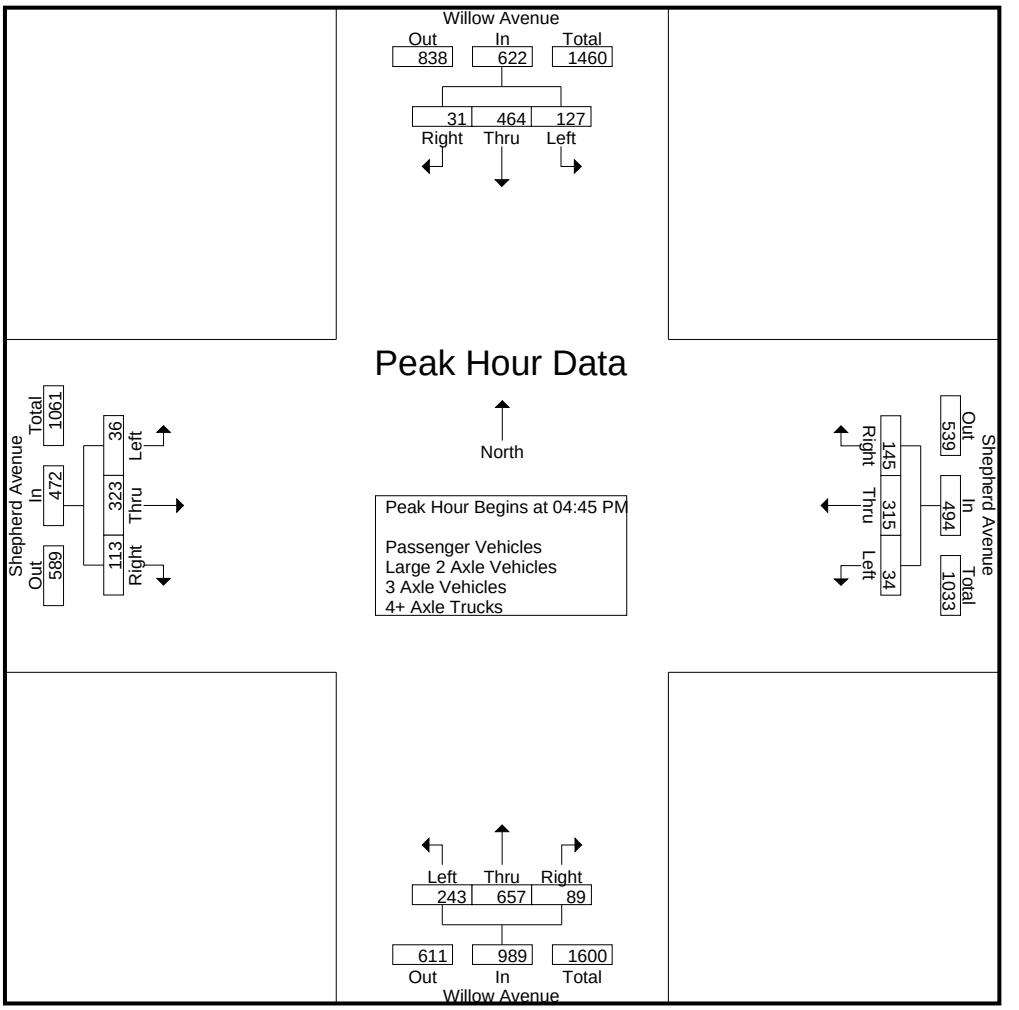
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	26	112	10	148	7	72	39	118	47	121	14	182	7	70	19	96	544
04:15 PM	32	130	16	178	10	65	31	106	35	140	10	185	6	64	24	94	563
04:30 PM	34	94	6	134	13	63	35	111	59	177	18	254	7	82	30	119	618
04:45 PM	29	119	8	156	8	83	34	125	59	159	13	231	11	83	33	127	639
Total	121	455	40	616	38	283	139	460	200	597	55	852	31	299	106	436	2364
05:00 PM	37	89	11	137	7	63	37	107	53	140	25	218	10	77	22	109	571
05:15 PM	29	129	8	166	12	79	44	135	53	193	21	267	8	80	25	113	681
05:30 PM	32	127	4	163	7	90	30	127	78	165	30	273	7	83	33	123	686
05:45 PM	32	111	7	150	20	80	27	127	41	162	22	225	13	73	37	123	625
Total	130	456	30	616	46	312	138	496	225	660	98	983	38	313	117	468	2563
Grand Total	251	911	70	1232	84	595	277	956	425	1257	153	1835	69	612	223	904	4927
Apprch %	20.4	73.9	5.7		8.8	62.2	29		23.2	68.5	8.3		7.6	67.7	24.7		
Total %	5.1	18.5	1.4	25	1.7	12.1	5.6	19.4	8.6	25.5	3.1	37.2	1.4	12.4	4.5	18.3	
Passenger Vehicles	249	899	70	1218	84	590	275	949	424	1251	150	1825	68	609	222	899	4891
% Passenger Vehicles	99.2	98.7	100	98.9	100	99.2	99.3	99.3	99.8	99.5	98	99.5	98.6	99.5	99.6	99.4	99.3
Large 2 Axle Vehicles	2	11	0	13	0	5	2	7	1	6	3	10	1	3	1	5	35
% Large 2 Axle Vehicles	0.8	1.2	0	1.1	0	0.8	0.7	0.7	0.2	0.5	2	0.5	1.4	0.5	0.4	0.6	0.7
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	29	119	8	156	8	83	34	125	59	159	13	231	**11**	**83**	**33**	**127**	639
05:00 PM	**37**	89	**11**	137	7	63	37	107	53	140	25	218	10	77	22	109	571
05:15 PM	29	**129**	8	**166**	**12**	79	**44**	**135**	53	**193**	21	267	8	80	25	113	681
05:30 PM	32	127	4	163	7	**90**	30	127	**78**	165	**30**	**273**	7	83	33	123	**686**
Total Volume	127	464	31	622	34	315	145	494	243	657	89	989	36	323	113	472	2577
% App. Total	20.4	74.6	5		6.9	63.8	29.4		24.6	66.4	9		7.6	68.4	23.9		
PHF	.858	.899	.705	.937	.708	.875	.824	.915	.779	.851	.742	.906	.818	.973	.856	.929	.939

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				04:45 PM				04:45 PM			
+0 mins.	29	119	8	156	7	63	37	107	59	159	13	231	**11**	**83**	**33**	**127**
+15 mins.	**37**	89	**11**	137	12	79	**44**	**135**	53	140	25	218	10	77	22	109
+30 mins.	29	**129**	8	**166**	7	**90**	30	127	53	**193**	21	267	8	80	25	113
+45 mins.	32	127	4	163	**20**	80	27	127	**78**	165	**30**	**273**	7	83	33	123
Total Volume	127	464	31	622	46	312	138	496	243	657	89	989	36	323	113	472
% App. Total	20.4	74.6	5		9.3	62.9	27.8		24.6	66.4	9		7.6	68.4	23.9	
PHF	.858	.899	.705	.937	.575	.867	.784	.919	.779	.851	.742	.906	.818	.973	.856	.929

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

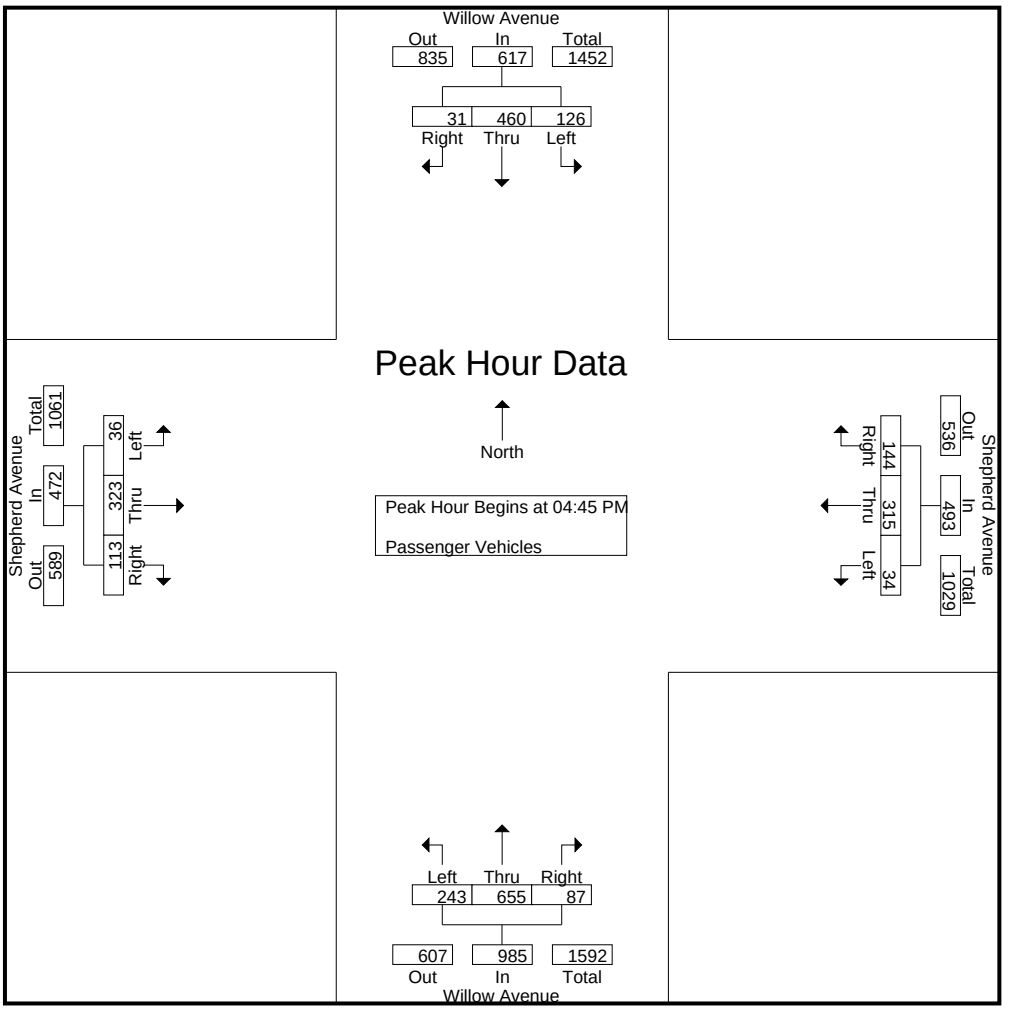
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	26	110	10	146	7	71	38	116	47	120	14	181	7	69	19	95	538
04:15 PM	31	126	16	173	10	63	31	104	35	139	9	183	5	63	23	91	551
04:30 PM	34	93	6	133	13	61	35	109	59	176	18	253	7	82	30	119	614
04:45 PM	29	118	8	155	8	83	34	125	59	158	12	229	11	83	33	127	636
Total	120	447	40	607	38	278	138	454	200	593	53	846	30	297	105	432	2339
05:00 PM	37	88	11	136	7	63	37	107	53	140	25	218	10	77	22	109	570
05:15 PM	28	128	8	164	12	79	44	135	53	192	20	265	8	80	25	113	677
05:30 PM	32	126	4	162	7	90	29	126	78	165	30	273	7	83	33	123	684
05:45 PM	32	110	7	149	20	80	27	127	40	161	22	223	13	72	37	122	621
Total	129	452	30	611	46	312	137	495	224	658	97	979	38	312	117	467	2552
Grand Total	249	899	70	1218	84	590	275	949	424	1251	150	1825	68	609	222	899	4891
Apprch %	20.4	73.8	5.7		8.9	62.2	29		23.2	68.5	8.2		7.6	67.7	24.7		
Total %	5.1	18.4	1.4	24.9	1.7	12.1	5.6	19.4	8.7	25.6	3.1	37.3	1.4	12.5	4.5	18.4	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	29	118	8	155	8	83	34	125	59	158	12	229	**11**	**83**	**33**	**127**	636
05:00 PM	**37**	88	**11**	136	7	63	37	107	53	140	25	218	10	77	22	109	570
05:15 PM	28	**128**	8	**164**	**12**	79	**44**	**135**	53	**192**	20	265	8	80	25	113	677
05:30 PM	32	126	4	162	7	**90**	29	126	**78**	165	**30**	**273**	7	83	33	123	**684**
Total Volume	126	460	31	617	34	315	144	493	243	655	87	985	36	323	113	472	2567
% App. Total	20.4	74.6	5		6.9	63.9	29.2		24.7	66.5	8.8		7.6	68.4	23.9		
PHF	.851	.898	.705	.941	.708	.875	.818	.913	.779	.853	.725	.902	.818	.973	.856	.929	.938

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	29	118	8	155	8	83	34	125	59	158	12	229	**11**	**83**	**33**	**127**
+15 mins.	**37**	88	**11**	136	7	63	37	107	53	140	25	218	10	77	22	109
+30 mins.	28	**128**	8	**164**	**12**	79	**44**	**135**	53	**192**	20	265	8	80	25	113
+45 mins.	32	126	4	162	7	**90**	29	126	**78**	165	**30**	**273**	7	83	33	123
Total Volume	126	460	31	617	34	315	144	493	243	655	87	985	36	323	113	472
% App. Total	20.4	74.6	5		6.9	63.9	29.2		24.7	66.5	8.8		7.6	68.4	23.9	
PHF	.851	.898	.705	.941	.708	.875	.818	.913	.779	.853	.725	.902	.818	.973	.856	.929

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

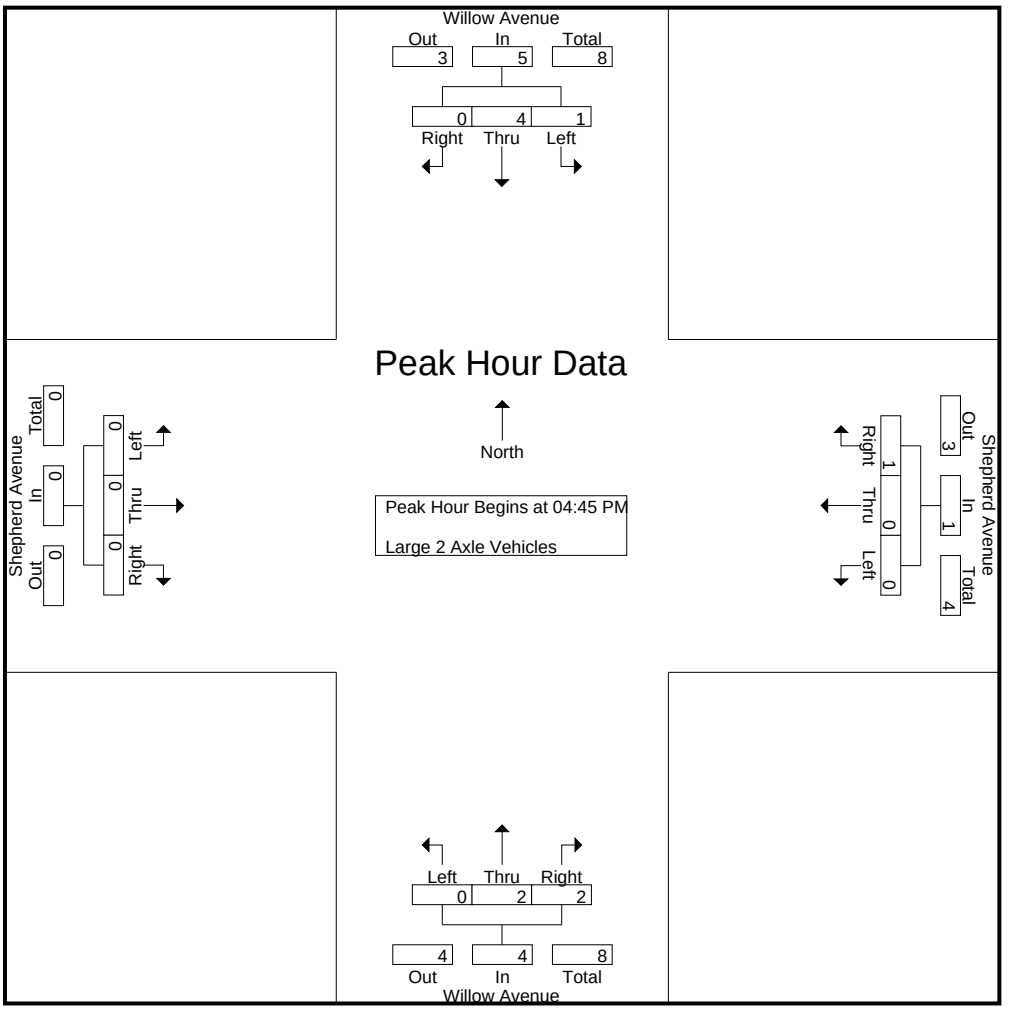
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	1	1	2	0	1	0	1	0	1	0	1	5
04:15 PM	1	4	0	5	0	2	0	2	0	1	1	2	1	1	1	3	12
04:30 PM	0	1	0	1	0	2	0	2	0	1	0	1	0	0	0	0	4
04:45 PM	0	1	0	1	0	0	0	0	0	1	1	2	0	0	0	0	3
Total	1	7	0	8	0	5	1	6	0	4	2	6	1	2	1	4	24
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	1	1	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
05:30 PM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
05:45 PM	0	1	0	1	0	0	0	0	1	1	0	2	0	1	0	1	4
Total	1	4	0	5	0	0	1	1	1	2	1	4	0	1	0	1	11
Grand Total	2	11	0	13	0	5	2	7	1	6	3	10	1	3	1	5	35
Apprch %	15.4	84.6	0		0	71.4	28.6		10	60	30		20	60	20		
Total %	5.7	31.4	0	37.1	0	14.3	5.7	20	2.9	17.1	8.6	28.6	2.9	8.6	2.9	14.3	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**1**	0	1	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	3
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	**1**	1	0	**2**	0	0	0	0	0	1	1	2	0	0	0	0	**4**
05:30 PM	0	1	0	1	0	0	**1**	**1**	0	0	0	0	0	0	0	0	2
Total Volume	1	4	0	5	0	0	1	1	0	2	2	4	0	0	0	0	10
% App. Total	20	80	0		0	0	100		0	50	50		0	0	0		
PHF	.250	1.00	.000	.625	.000	.000	.250	.250	.000	.500	.500	.500	.000	.000	.000	.000	.625

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	**1**	0	1	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	**1**	1	0	**2**	0	0	0	0	0	1	1	2	0	0	0	0
+45 mins.	0	1	0	1	0	0	**1**	**1**	0	0	0	0	0	0	0	0
Total Volume	1	4	0	5	0	0	1	1	0	2	2	4	0	0	0	0
% App. Total	20	80	0		0	0	100		0	50	50		0	0	0	
PHF	.250	1.000	.000	.625	.000	.000	.250	.250	.000	.500	.500	.500	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

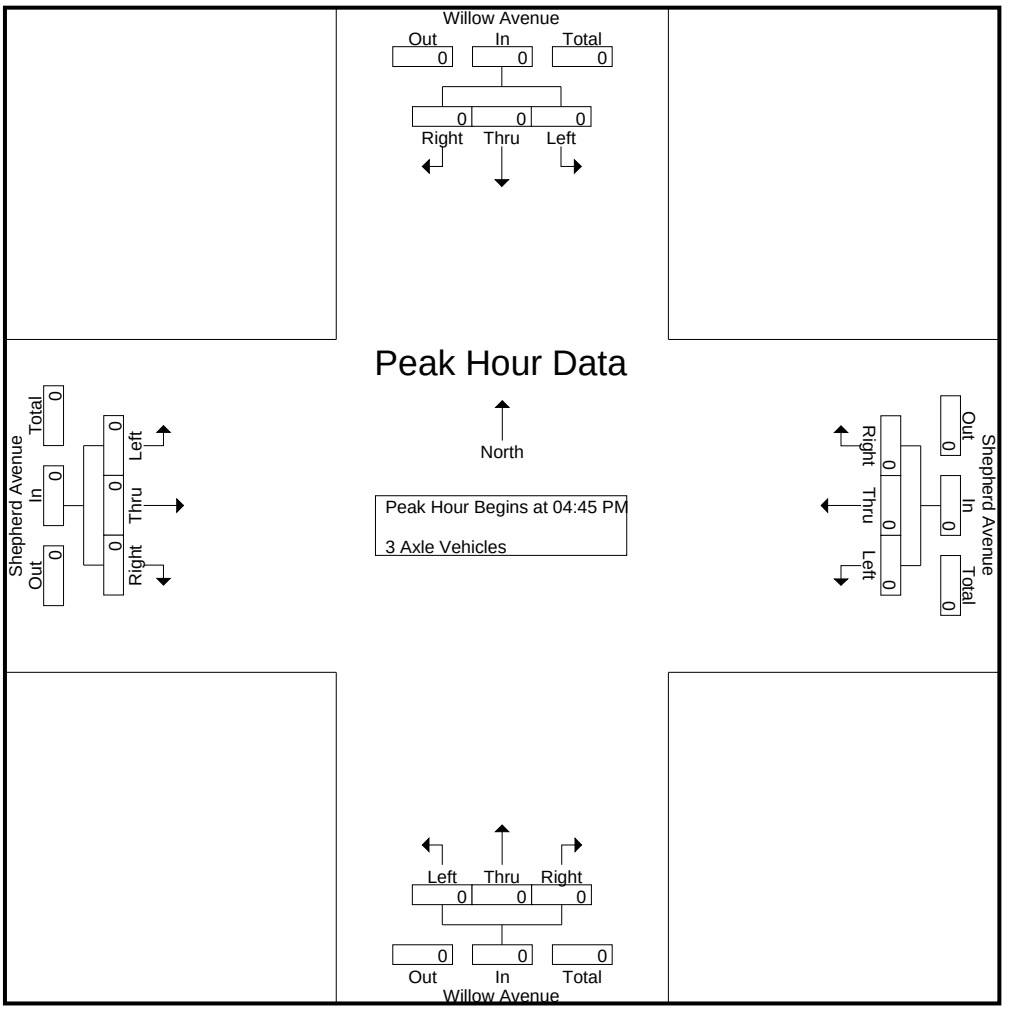
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

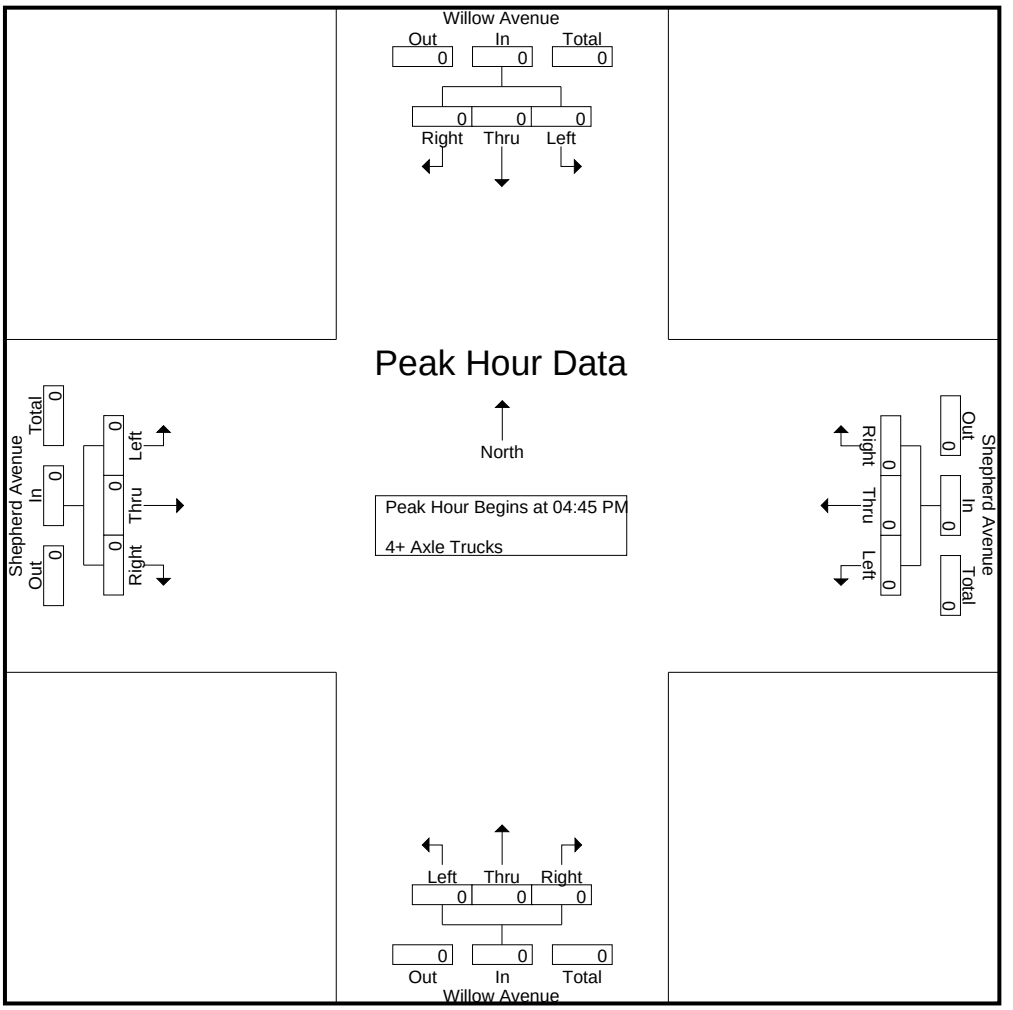
	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Willow Avenue Southbound				Shepherd Avenue Westbound				Willow Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 03_CVS_Willow_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Willow Avenue	East Leg Shepherd Avenue	South Leg Willow Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	0	1	3

	North Leg Willow Avenue	East Leg Shepherd Avenue	South Leg Willow Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	1	1	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	1	1	0	0	2
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	1	1	1	4	7

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Willow Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Willow Avenue			Westbound Shepherd Avenue			Northbound Willow Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	1	1	0	0	0	0	2	0	1	0	0	0	5
7:15 AM	0	6	0	0	1	0	0	3	0	0	0	2	12
7:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	3
7:45 AM	0	3	1	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	1	0	0	1	0	0	1	0	3
8:15 AM	1	1	0	0	0	1	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	3	0	0	0	1	0	1	0	0	1	0	6
TOTAL VOLUMES:	2	16	1	0	2	3	2	5	1	0	2	2	36

	Southbound Willow Avenue			Westbound Shepherd Avenue			Northbound Willow Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	2	0	0	0	0	0	0	0	0	1	0	0	3
4:30 PM	1	0	2	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	2	0	0	1	0	1	0	0	0	0	4
TOTAL VOLUMES:	4	1	4	0	0	1	0	2	0	1	0	0	13

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: International Avenue
Weather: Clear

File Name : 04_CVS_Min_Int AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

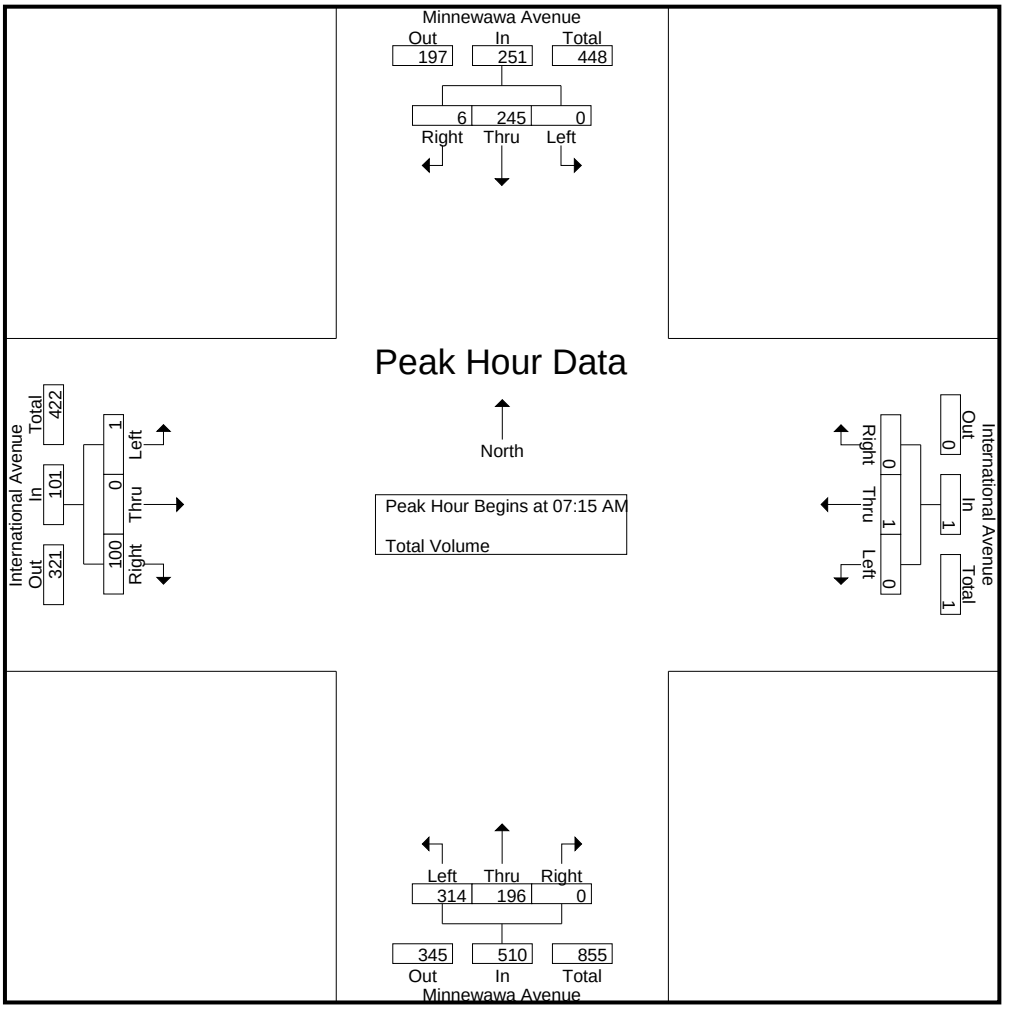
	Minnewawa Avenue Southbound				International Avenue Westbound				Minnewawa Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	34	0	34	0	0	0	0	27	42	0	69	1	0	9	10	113
07:15 AM	0	45	0	45	0	0	0	0	64	43	0	107	0	0	10	10	162
07:30 AM	0	77	2	79	0	0	0	0	98	45	0	143	1	0	25	26	248
07:45 AM	0	69	1	70	0	0	0	0	110	57	0	167	0	0	29	29	266
Total	0	225	3	228	0	0	0	0	299	187	0	486	2	0	73	75	789
08:00 AM	0	54	3	57	0	1	0	1	42	51	0	93	0	0	36	36	187
08:15 AM	0	50	0	50	0	0	0	0	15	47	1	63	0	0	9	9	122
08:30 AM	0	50	0	50	1	0	0	1	14	48	0	62	0	0	6	6	119
08:45 AM	0	40	0	40	0	0	0	0	12	38	0	50	0	0	9	9	99
Total	0	194	3	197	1	1	0	2	83	184	1	268	0	0	60	60	527
Grand Total	0	419	6	425	1	1	0	2	382	371	1	754	2	0	133	135	1316
Apprch %	0	98.6	1.4		50	50	0		50.7	49.2	0.1		1.5	0	98.5		
Total %	0	31.8	0.5	32.3	0.1	0.1	0	0.2	29	28.2	0.1	57.3	0.2	0	10.1	10.3	

	Minnewawa Avenue Southbound				International Avenue Westbound				Minnewawa Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	45	0	45	0	0	0	0	64	43	0	107	0	0	10	10	162
07:30 AM	0	**77**	2	**79**	0	0	0	0	98	45	0	143	**1**	0	25	26	248
07:45 AM	0	69	1	70	0	0	0	0	**110**	**57**	0	**167**	0	0	29	29	**266**
08:00 AM	0	54	**3**	57	0	**1**	0	**1**	42	51	0	93	0	0	**36**	**36**	187
Total Volume	0	245	6	251	0	1	0	1	314	196	0	510	1	0	100	101	863
% App. Total	0	97.6	2.4		0	100	0		61.6	38.4	0		1	0	99		
PHF	.000	.795	.500	.794	.000	.250	.000	.250	.714	.860	.000	.763	.250	.000	.694	.701	.811

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: International Avenue
Weather: Clear

File Name : 04_CVS_Min_Int AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:15 AM				07:15 AM			
+0 mins.	0	**77**	2	**79**	0	0	0	0	64	43	0	107	0	0	10	10
+15 mins.	0	69	1	70	0	**1**	0	**1**	98	45	0	143	**1**	0	25	26
+30 mins.	0	54	**3**	57	0	0	0	0	**110**	**57**	0	**167**	0	0	29	29
+45 mins.	0	50	0	50	**1**	0	0	1	42	51	0	93	0	0	**36**	**36**
Total Volume	0	250	6	256	1	1	0	2	314	196	0	510	1	0	100	101
% App. Total	0	97.7	2.3		50	50	0		61.6	38.4	0		1	0	99	
PHF	.000	.812	.500	.810	.250	.250	.000	.500	.714	.860	.000	.763	.250	.000	.694	.701

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: International Avenue
Weather: Clear

File Name : 04_CVS_Min_Int PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

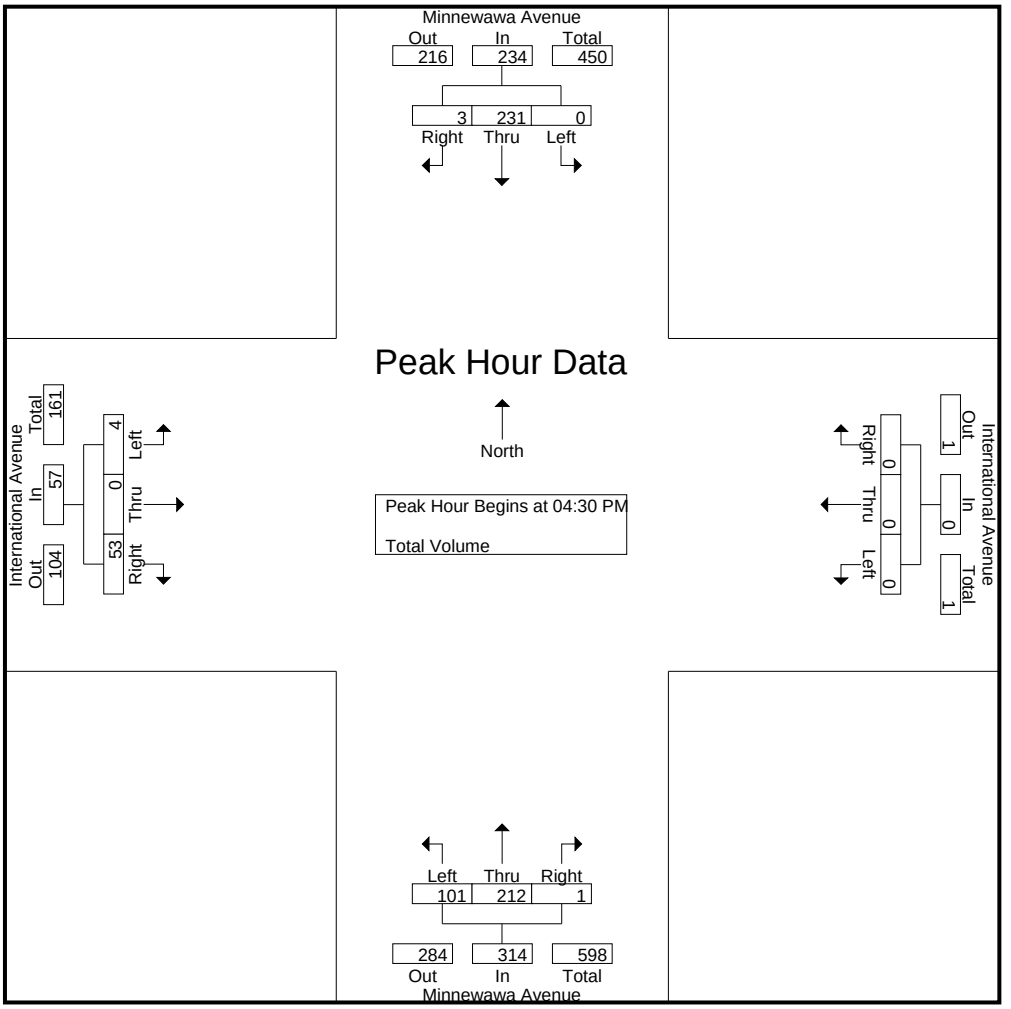
	Minnewawa Avenue Southbound				International Avenue Westbound				Minnewawa Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	56	0	56	0	0	0	0	14	52	0	66	0	0	24	24	146
04:15 PM	0	76	0	76	0	1	0	1	18	52	1	71	0	0	15	15	163
04:30 PM	0	57	0	57	0	0	0	0	29	51	1	81	1	0	10	11	149
04:45 PM	0	55	1	56	0	0	0	0	26	44	0	70	3	0	16	19	145
Total	0	244	1	245	0	1	0	1	87	199	2	288	4	0	65	69	603
05:00 PM	0	54	1	55	0	0	0	0	22	49	0	71	0	0	10	10	136
05:15 PM	0	65	1	66	0	0	0	0	24	68	0	92	0	0	17	17	175
05:30 PM	0	58	1	59	0	1	0	1	17	57	2	76	0	0	8	8	144
05:45 PM	0	34	0	34	0	0	0	0	14	47	0	61	0	0	9	9	104
Total	0	211	3	214	0	1	0	1	77	221	2	300	0	0	44	44	559
Grand Total	0	455	4	459	0	2	0	2	164	420	4	588	4	0	109	113	1162
Apprch %	0	99.1	0.9		0	100	0		27.9	71.4	0.7		3.5	0	96.5		
Total %	0	39.2	0.3	39.5	0	0.2	0	0.2	14.1	36.1	0.3	50.6	0.3	0	9.4	9.7	

	Minnewawa Avenue Southbound				International Avenue Westbound				Minnewawa Avenue Northbound				International Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	57	0	57	0	0	0	0	**29**	51	**1**	81	1	0	10	11	149
04:45 PM	0	55	**1**	56	0	0	0	0	26	44	0	70	**3**	0	16	**19**	145
05:00 PM	0	54	1	55	0	0	0	0	22	49	0	71	0	0	10	10	136
05:15 PM	0	**65**	1	**66**	0	0	0	0	24	**68**	0	**92**	0	0	**17**	17	**175**
Total Volume	0	231	3	234	0	0	0	0	101	212	1	314	4	0	53	57	605
% App. Total	0	98.7	1.3		0	0	0		32.2	67.5	0.3		7	0	93		
PHF	.000	.888	.750	.886	.000	.000	.000	.000	.871	.779	.250	.853	.333	.000	.779	.750	.864

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: International Avenue
Weather: Clear

File Name : 04_CVS_Min_Int PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	0	56	0	56	0	0	0	0	**29**	51	**1**	81	0	0	**24**	**24**
+15 mins.	0	**76**	0	**76**	0	**1**	0	**1**	26	44	0	70	0	0	15	15
+30 mins.	0	57	0	57	0	0	0	0	22	49	0	71	1	0	10	11
+45 mins.	0	55	**1**	56	0	0	0	0	24	**68**	0	**92**	**3**	0	16	19
Total Volume	0	244	1	245	0	1	0	1	101	212	1	314	4	0	65	69
% App. Total	0	99.6	0.4		0	100	0		32.2	67.5	0.3		5.8	0	94.2	
PHF	.000	.803	.250	.806	.000	.250	.000	.250	.871	.779	.250	.853	.333	.000	.677	.719

Location: Clovis
N/S: Minnewawa Avenue
E/W: International Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Minnewawa Avenue	East Leg International Avenue	South Leg Minnewawa Avenue	West Leg International Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Minnewawa Avenue	East Leg International Avenue	South Leg Minnewawa Avenue	West Leg International Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Minnewawa Avenue
E/W: International Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Minnewawa Avenue			Westbound International Avenue			Northbound Minnewawa Avenue			Eastbound International Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	3	0	0	0	0	0	4	0	0	0	0	7

	Southbound Minnewawa Avenue			Westbound International Avenue			Northbound Minnewawa Avenue			Eastbound International Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 05_CVS_Min_Beh AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

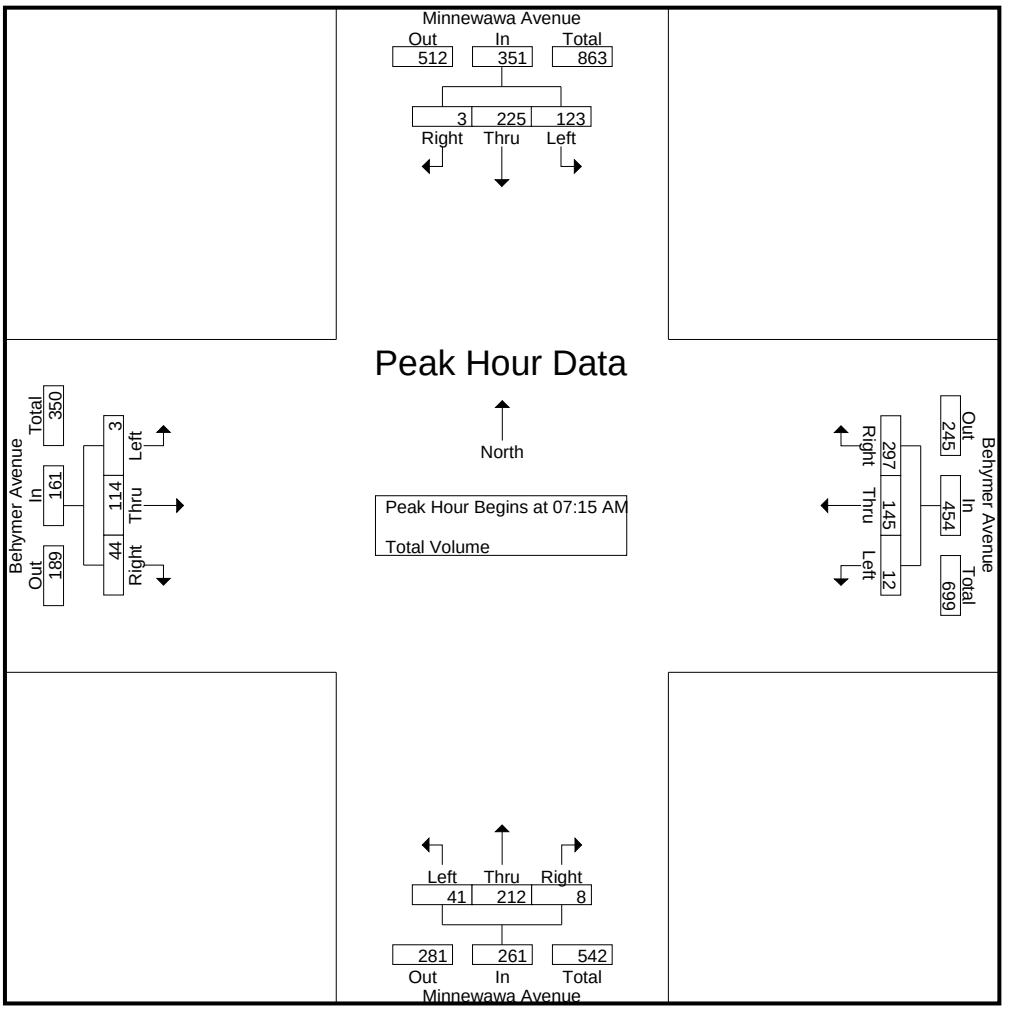
	Minnewawa Avenue Southbound				Behymer Avenue Westbound				Minnewawa Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	18	23	0	41	3	15	36	54	3	31	1	35	0	13	9	22	152
07:15 AM	15	43	1	59	5	38	62	105	4	47	1	52	0	12	8	20	236
07:30 AM	24	75	0	99	6	34	102	142	8	46	1	55	2	29	12	43	339
07:45 AM	45	57	1	103	1	33	93	127	16	74	6	96	1	33	10	44	370
Total	102	198	2	302	15	120	293	428	31	198	9	238	3	87	39	129	1097
08:00 AM	39	50	1	90	0	40	40	80	13	45	0	58	0	40	14	54	282
08:15 AM	21	44	2	67	0	24	23	47	2	40	1	43	4	33	12	49	206
08:30 AM	12	39	2	53	1	19	26	46	5	33	0	38	2	8	11	21	158
08:45 AM	15	33	1	49	1	17	17	35	5	35	0	40	0	9	6	15	139
Total	87	166	6	259	2	100	106	208	25	153	1	179	6	90	43	139	785
Grand Total	189	364	8	561	17	220	399	636	56	351	10	417	9	177	82	268	1882
Apprch %	33.7	64.9	1.4		2.7	34.6	62.7		13.4	84.2	2.4		3.4	66	30.6		
Total %	10	19.3	0.4	29.8	0.9	11.7	21.2	33.8	3	18.7	0.5	22.2	0.5	9.4	4.4	14.2	

	Minnewawa Avenue Southbound				Behymer Avenue Westbound				Minnewawa Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	15	43	**1**	59	5	38	62	105	4	47	1	52	0	12	8	20	236
07:30 AM	24	**75**	0	99	**6**	34	**102**	**142**	8	46	1	55	**2**	29	12	43	339
07:45 AM	**45**	57	1	**103**	1	33	93	127	**16**	**74**	**6**	**96**	1	33	10	44	**370**
08:00 AM	39	50	1	90	0	**40**	40	80	13	45	0	58	0	**40**	**14**	**54**	282
Total Volume	123	225	3	351	12	145	297	454	41	212	8	261	3	114	44	161	1227
% App. Total	35	64.1	0.9		2.6	31.9	65.4		15.7	81.2	3.1		1.9	70.8	27.3		
PHF	.683	.750	.750	.852	.500	.906	.728	.799	.641	.716	.333	.680	.375	.713	.786	.745	.829

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 05_CVS_Min_Beh AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	24	**75**	0	99	5	38	62	105	4	47	1	52	2	29	12	43
+15 mins.	**45**	57	1	**103**	**6**	34	**102**	**142**	8	46	1	55	1	33	10	44
+30 mins.	39	50	1	90	1	33	93	127	**16**	**74**	**6**	**96**	0	**40**	**14**	**54**
+45 mins.	21	44	**2**	67	0	**40**	40	80	13	45	0	58	**4**	33	12	49
Total Volume	129	226	4	359	12	145	297	454	41	212	8	261	7	135	48	190
% App. Total	35.9	63	1.1		2.6	31.9	65.4		15.7	81.2	3.1		3.7	71.1	25.3	
PHF	.717	.753	.500	.871	.500	.906	.728	.799	.641	.716	.333	.680	.438	.844	.857	.880

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 05_CVS_Min_Beh PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

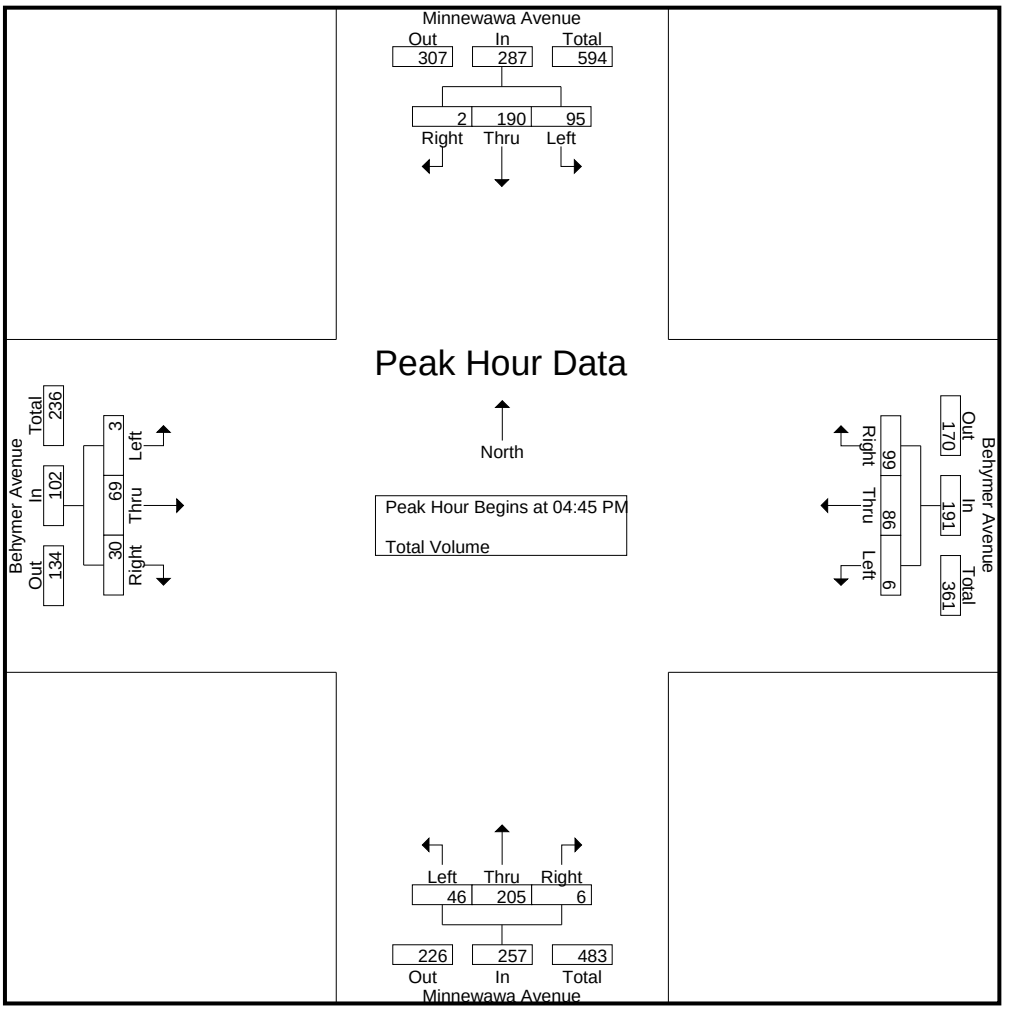
	Minnewawa Avenue Southbound				Behymer Avenue Westbound				Minnewawa Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	33	47	3	83	1	15	25	41	9	41	3	53	1	25	5	31	208
04:15 PM	34	53	0	87	0	13	18	31	7	52	0	59	0	9	5	14	191
04:30 PM	24	44	1	69	0	17	29	46	9	50	0	59	1	13	7	21	195
04:45 PM	25	49	0	74	1	20	24	45	11	40	0	51	3	24	11	38	208
Total	116	193	4	313	2	65	96	163	36	183	3	222	5	71	28	104	802
05:00 PM	25	37	0	62	1	28	28	57	10	44	2	56	0	15	4	19	194
05:15 PM	26	56	0	82	3	20	30	53	13	66	1	80	0	16	8	24	239
05:30 PM	19	48	2	69	1	18	17	36	12	55	3	70	0	14	7	21	196
05:45 PM	20	25	0	45	2	18	23	43	12	40	2	54	0	19	5	24	166
Total	90	166	2	258	7	84	98	189	47	205	8	260	0	64	24	88	795
Grand Total	206	359	6	571	9	149	194	352	83	388	11	482	5	135	52	192	1597
Apprch %	36.1	62.9	1.1		2.6	42.3	55.1		17.2	80.5	2.3		2.6	70.3	27.1		
Total %	12.9	22.5	0.4	35.8	0.6	9.3	12.1	22	5.2	24.3	0.7	30.2	0.3	8.5	3.3	12	

	Minnewawa Avenue Southbound				Behymer Avenue Westbound				Minnewawa Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	25	49	0	74	1	20	24	45	11	40	0	51	**3**	**24**	**11**	**38**	208
05:00 PM	25	37	0	62	1	**28**	28	**57**	10	44	2	56	0	15	4	19	194
05:15 PM	**26**	**56**	0	**82**	**3**	20	**30**	53	**13**	**66**	1	**80**	0	16	8	24	**239**
05:30 PM	19	48	**2**	69	1	18	17	36	12	55	**3**	70	0	14	7	21	196
Total Volume	95	190	2	287	6	86	99	191	46	205	6	257	3	69	30	102	837
% App. Total	33.1	66.2	0.7		3.1	45	51.8		17.9	79.8	2.3		2.9	67.6	29.4		
PHF	.913	.848	.250	.875	.500	.768	.825	.838	.885	.777	.500	.803	.250	.719	.682	.671	.876

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 05_CVS_Min_Beh PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				05:00 PM				04:00 PM			
+0 mins.	33	47	**3**	83	0	17	29	46	10	44	2	56	1	**25**	5	31
+15 mins.	**34**	**53**	0	**87**	1	20	24	45	**13**	**66**	1	**80**	0	9	5	14
+30 mins.	24	44	1	69	1	**28**	28	**57**	12	55	**3**	70	1	13	7	21
+45 mins.	25	49	0	74	**3**	20	**30**	53	12	40	2	54	**3**	24	**11**	**38**
Total Volume	116	193	4	313	5	85	111	201	47	205	8	260	5	71	28	104
% App. Total	37.1	61.7	1.3		2.5	42.3	55.2		18.1	78.8	3.1		4.8	68.3	26.9	
PHF	.853	.910	.333	.899	.417	.759	.925	.882	.904	.777	.667	.813	.417	.710	.636	.684

Location: Clovis
N/S: Minnewawa Avenue
E/W: Behymer Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Minnewawa Avenue	East Leg Behymer Avenue	South Leg Minnewawa Avenue	West Leg Behymer Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	1	0	0	0	1
TOTAL VOLUMES:	1	0	0	0	1

	North Leg Minnewawa Avenue	East Leg Behymer Avenue	South Leg Minnewawa Avenue	West Leg Behymer Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Minnewawa Avenue
E/W: Behymer Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Minnewawa Avenue			Westbound Behymer Avenue			Northbound Minnewawa Avenue			Eastbound Behymer Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
8:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	3	0	0	0	1	1	2	0	0	0	0	7

	Southbound Minnewawa Avenue			Westbound Behymer Avenue			Northbound Minnewawa Avenue			Eastbound Behymer Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

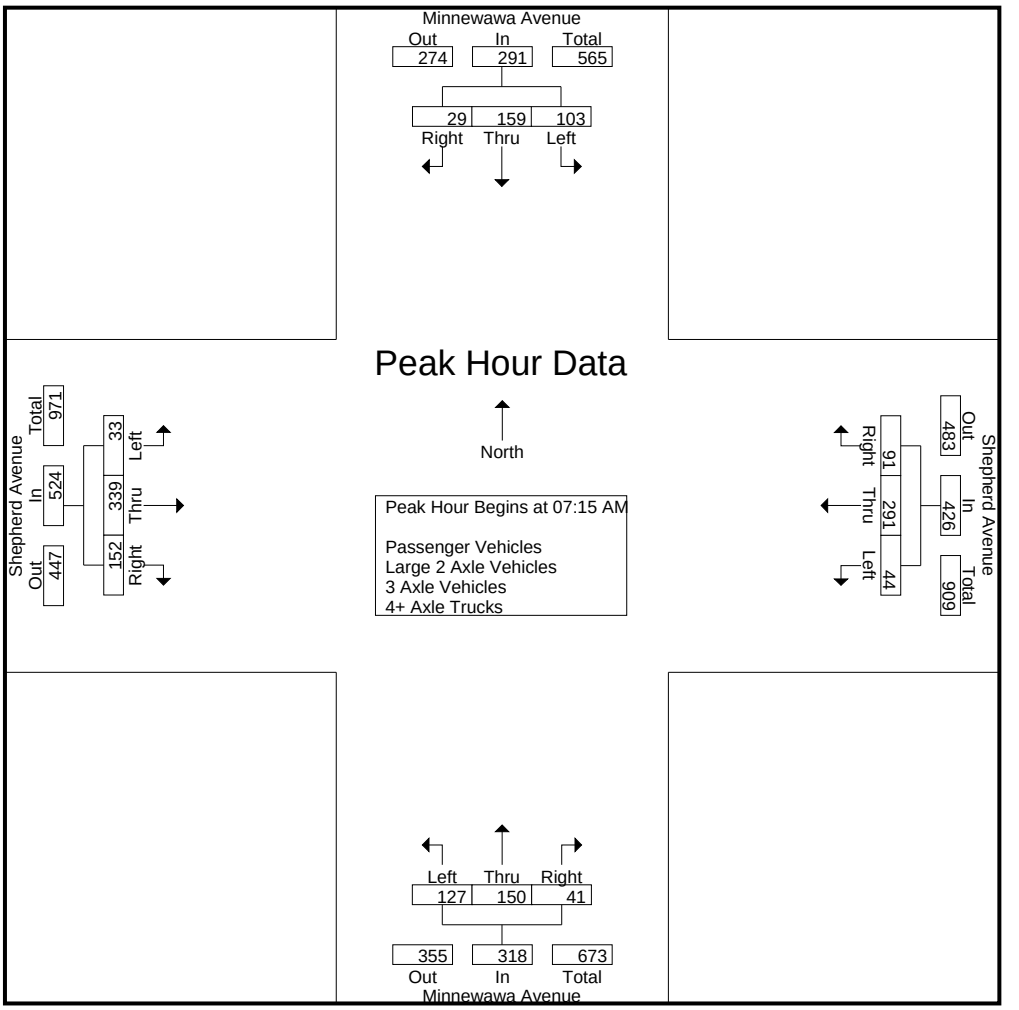
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	26	2	32	8	68	13	89	13	21	2	36	2	50	18	70	227
07:15 AM	12	41	10	63	13	68	15	96	27	35	6	68	7	70	26	103	330
07:30 AM	28	49	11	88	19	74	18	111	39	38	14	91	13	76	41	130	420
07:45 AM	33	36	6	75	8	82	38	128	37	46	16	99	9	102	48	159	461
Total	77	152	29	258	48	292	84	424	116	140	38	294	31	298	133	462	1438
08:00 AM	30	33	2	65	4	67	20	91	24	31	5	60	4	91	37	132	348
08:15 AM	28	24	2	54	6	87	16	109	17	22	4	43	9	74	20	103	309
08:30 AM	14	36	0	50	1	78	15	94	18	23	3	44	4	70	11	85	273
08:45 AM	15	23	5	43	4	82	17	103	19	24	2	45	2	63	7	72	263
Total	87	116	9	212	15	314	68	397	78	100	14	192	19	298	75	392	1193
Grand Total	164	268	38	470	63	606	152	821	194	240	52	486	50	596	208	854	2631
Apprch %	34.9	57	8.1		7.7	73.8	18.5		39.9	49.4	10.7		5.9	69.8	24.4		
Total %	6.2	10.2	1.4	17.9	2.4	23	5.8	31.2	7.4	9.1	2	18.5	1.9	22.7	7.9	32.5	
Passenger Vehicles	152	265	37	454	63	596	139	798	194	228	51	473	49	583	205	837	2562
% Passenger Vehicles	92.7	98.9	97.4	96.6	100	98.3	91.4	97.2	100	95	98.1	97.3	98	97.8	98.6	98	97.4
Large 2 Axle Vehicles	5	2	1	8	0	6	10	16	0	6	1	7	1	9	3	13	44
% Large 2 Axle Vehicles	3	0.7	2.6	1.7	0	1	6.6	1.9	0	2.5	1.9	1.4	2	1.5	1.4	1.5	1.7
3 Axle Vehicles	6	1	0	7	0	3	3	6	0	3	0	3	0	4	0	4	20
% 3 Axle Vehicles	3.7	0.4	0	1.5	0	0.5	2	0.7	0	1.2	0	0.6	0	0.7	0	0.5	0.8
4+ Axle Trucks	1	0	0	1	0	1	0	1	0	3	0	3	0	0	0	0	5
% 4+ Axle Trucks	0.6	0	0	0.2	0	0.2	0	0.1	0	1.2	0	0.6	0	0	0	0	0.2

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	12	41	10	63	13	68	15	96	27	35	6	68	7	70	26	103	330
07:30 AM	28	**49**	**11**	**88**	**19**	74	18	111	**39**	38	14	91	**13**	76	41	130	420
07:45 AM	**33**	36	6	75	8	**82**	**38**	**128**	37	**46**	**16**	**99**	9	**102**	**48**	**159**	**461**
08:00 AM	30	33	2	65	4	67	20	91	24	31	5	60	4	91	37	132	348
Total Volume	103	159	29	291	44	291	91	426	127	150	41	318	33	339	152	524	1559
% App. Total	35.4	54.6	10		10.3	68.3	21.4		39.9	47.2	12.9		6.3	64.7	29		
PHF	.780	.811	.659	.827	.579	.887	.599	.832	.814	.815	.641	.803	.635	.831	.792	.824	.845

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:15 AM				07:15 AM			
+0 mins.	12	41	10	63	**19**	74	18	111	27	35	6	68	7	70	26	103
+15 mins.	28	**49**	**11**	**88**	8	82	**38**	**128**	**39**	38	14	91	**13**	76	41	130
+30 mins.	**33**	36	6	75	4	67	20	91	37	**46**	**16**	**99**	9	**102**	**48**	**159**
+45 mins.	30	33	2	65	6	**87**	16	109	24	31	5	60	4	91	37	132
Total Volume	103	159	29	291	37	310	92	439	127	150	41	318	33	339	152	524
% App. Total	35.4	54.6	10		8.4	70.6	21		39.9	47.2	12.9		6.3	64.7	29	
PHF	.780	.811	.659	.827	.487	.891	.605	.857	.814	.815	.641	.803	.635	.831	.792	.824

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

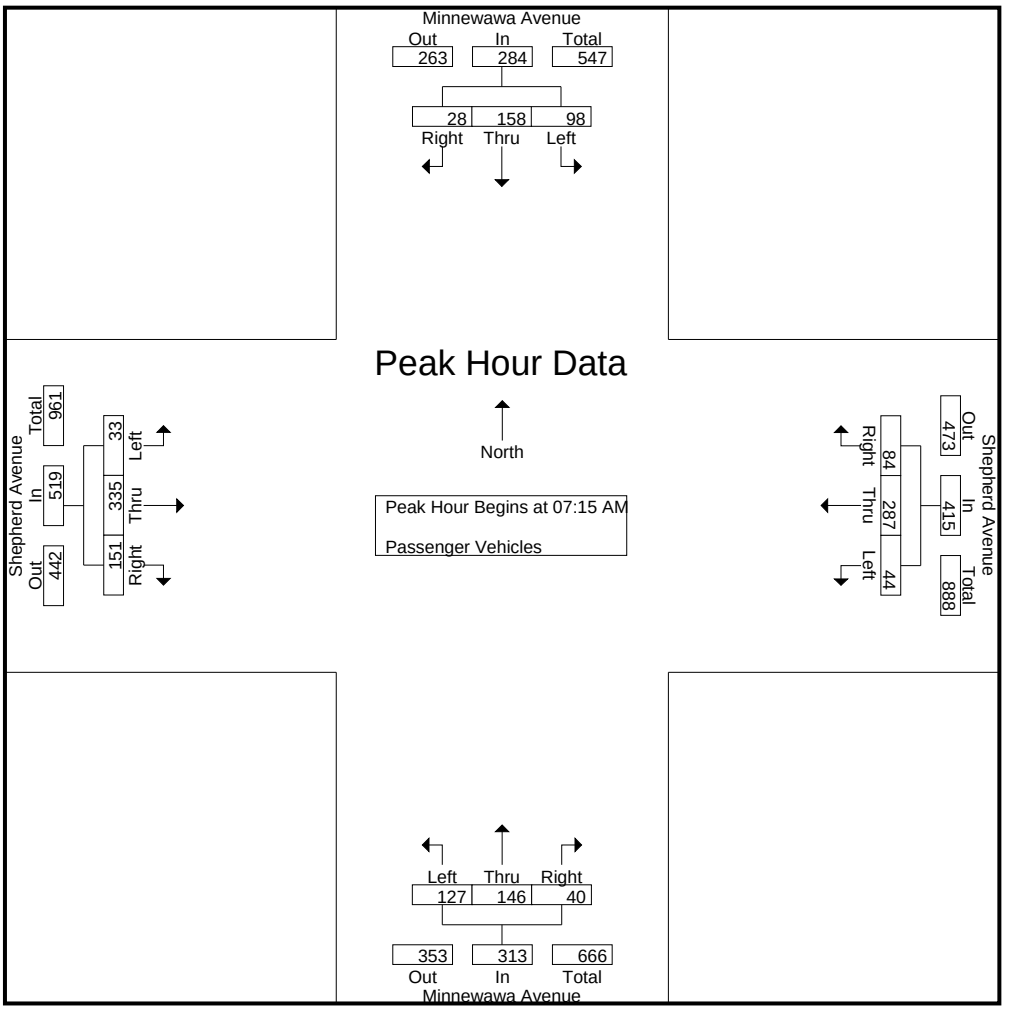
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	26	2	32	8	65	12	85	13	19	2	34	2	49	18	69	220
07:15 AM	12	41	9	62	13	68	13	94	27	32	6	65	7	70	26	103	324
07:30 AM	28	49	11	88	19	74	17	110	39	38	13	90	13	74	41	128	416
07:45 AM	28	36	6	70	8	81	36	125	37	46	16	99	9	100	48	157	451
Total	72	152	28	252	48	288	78	414	116	135	37	288	31	293	133	457	1411
08:00 AM	30	32	2	64	4	64	18	86	24	30	5	59	4	91	36	131	340
08:15 AM	25	24	2	51	6	86	14	106	17	20	4	41	8	70	20	98	296
08:30 AM	11	36	0	47	1	77	14	92	18	21	3	42	4	67	11	82	263
08:45 AM	14	21	5	40	4	81	15	100	19	22	2	43	2	62	5	69	252
Total	80	113	9	202	15	308	61	384	78	93	14	185	18	290	72	380	1151
Grand Total	152	265	37	454	63	596	139	798	194	228	51	473	49	583	205	837	2562
Apprch %	33.5	58.4	8.1		7.9	74.7	17.4		41	48.2	10.8		5.9	69.7	24.5		
Total %	5.9	10.3	1.4	17.7	2.5	23.3	5.4	31.1	7.6	8.9	2	18.5	1.9	22.8	8	32.7	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	12	41	9	62	13	68	13	94	27	32	6	65	7	70	26	103	324
07:30 AM	28	**49**	**11**	**88**	**19**	74	17	110	**39**	38	13	90	**13**	74	41	128	416
07:45 AM	28	36	6	70	8	**81**	**36**	**125**	37	**46**	**16**	**99**	9	**100**	**48**	**157**	**451**
08:00 AM	**30**	32	2	64	4	64	18	86	24	30	5	59	4	91	36	131	340
Total Volume	98	158	28	284	44	287	84	415	127	146	40	313	33	335	151	519	1531
% App. Total	34.5	55.6	9.9		10.6	69.2	20.2		40.6	46.6	12.8		6.4	64.5	29.1		
PHF	.817	.806	.636	.807	.579	.886	.583	.830	.814	.793	.625	.790	.635	.838	.786	.826	.849

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	12	41	9	62	13	68	13	94	27	32	6	65	7	70	26	103
+15 mins.	28	**49**	**11**	**88**	**19**	74	17	110	**39**	38	13	90	**13**	74	41	128
+30 mins.	28	36	6	70	8	**81**	**36**	**125**	37	**46**	**16**	**99**	9	**100**	**48**	**157**
+45 mins.	**30**	32	2	64	4	64	18	86	24	30	5	59	4	91	36	131
Total Volume	98	158	28	284	44	287	84	415	127	146	40	313	33	335	151	519
% App. Total	34.5	55.6	9.9		10.6	69.2	20.2		40.6	46.6	12.8		6.4	64.5	29.1	
PHF	.817	.806	.636	.807	.579	.886	.583	.830	.814	.793	.625	.790	.635	.838	.786	.826

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

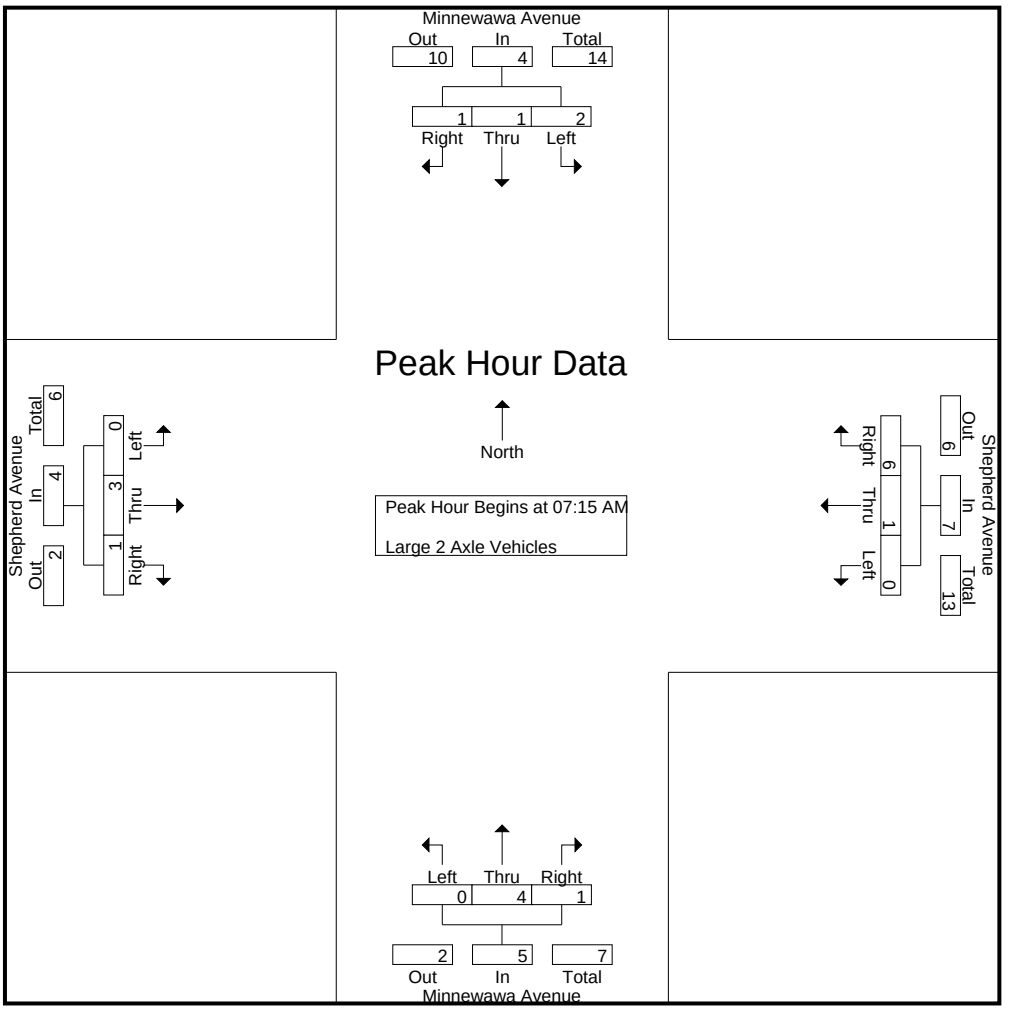
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	3	1	4	0	1	0	1	0	1	0	1	6
07:15 AM	0	0	1	1	0	0	1	1	0	3	0	3	0	0	0	0	5
07:30 AM	0	0	0	0	0	0	1	1	0	0	1	1	0	2	0	2	4
07:45 AM	2	0	0	2	0	1	2	3	0	0	0	0	0	1	0	1	6
Total	2	0	1	3	0	4	5	9	0	4	1	5	0	4	0	4	21
08:00 AM	0	1	0	1	0	0	2	2	0	1	0	1	0	0	1	1	5
08:15 AM	2	0	0	2	0	1	2	3	0	0	0	0	1	3	0	4	9
08:30 AM	1	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	4
08:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	1	2	3	5
Total	3	2	0	5	0	2	5	7	0	2	0	2	1	5	3	9	23
Grand Total	5	2	1	8	0	6	10	16	0	6	1	7	1	9	3	13	44
Apprch %	62.5	25	12.5		0	37.5	62.5		0	85.7	14.3		7.7	69.2	23.1		
Total %	11.4	4.5	2.3	18.2	0	13.6	22.7	36.4	0	13.6	2.3	15.9	2.3	20.5	6.8	29.5	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**1**	1	0	0	1	1	0	**3**	0	**3**	0	0	0	0	5
07:30 AM	0	0	0	0	0	0	1	1	0	0	**1**	1	0	**2**	0	**2**	4
07:45 AM	**2**	0	0	**2**	0	**1**	**2**	**3**	0	0	0	0	0	1	0	1	**6**
08:00 AM	0	**1**	0	1	0	0	2	2	0	1	0	1	0	0	**1**	1	5
Total Volume	2	1	1	4	0	1	6	7	0	4	1	5	0	3	1	4	20
% App. Total	50	25	25		0	14.3	85.7		0	80	20		0	75	25		
PHF	.250	.250	.250	.500	.000	.250	.750	.583	.000	.333	.250	.417	.000	.375	.250	.500	.833

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	**1**	1	0	0	1	1	0	**3**	0	**3**	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	**1**	1	0	**2**	0	**2**
+30 mins.	**2**	0	0	**2**	0	**1**	**2**	**3**	0	0	0	0	0	1	0	1
+45 mins.	0	**1**	0	1	0	0	2	2	0	1	0	1	0	0	**1**	1
Total Volume	2	1	1	4	0	1	6	7	0	4	1	5	0	3	1	4
% App. Total	50	25	25		0	14.3	85.7		0	80	20		0	75	25	
PHF	.250	.250	.250	.500	.000	.250	.750	.583	.000	.333	.250	.417	.000	.375	.250	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

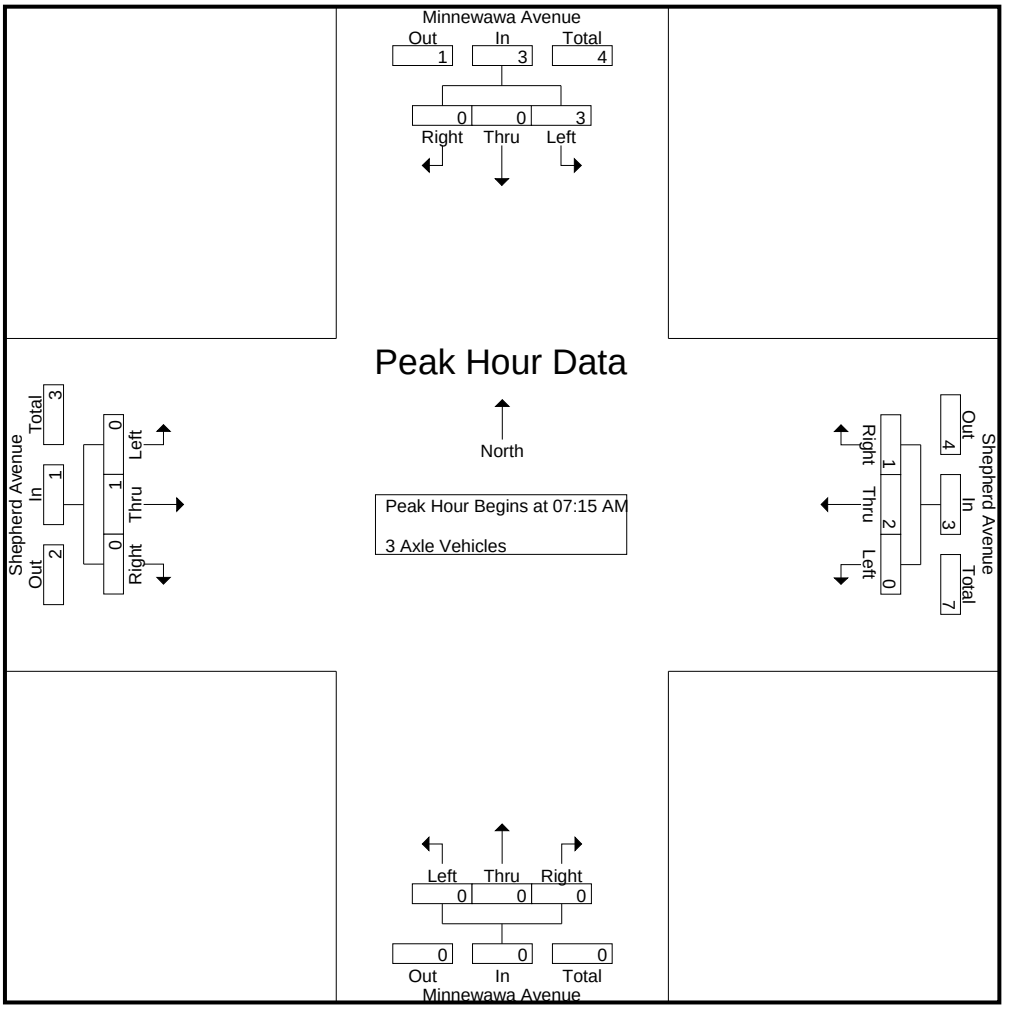
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	3	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	4
Total	3	0	0	3	0	0	1	1	0	0	0	0	0	1	0	1	5
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1	3
08:30 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	2	0	2	4
08:45 AM	1	1	0	2	0	0	2	2	0	2	0	2	0	0	0	0	6
Total	3	1	0	4	0	3	2	5	0	3	0	3	0	3	0	3	15
Grand Total	6	1	0	7	0	3	3	6	0	3	0	3	0	4	0	4	20
Apprch %	85.7	14.3	0		0	50	50		0	100	0		0	100	0		
Total %	30	5	0	35	0	15	15	30	0	15	0	15	0	20	0	20	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**4**
08:00 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	2
Total Volume	3	0	0	3	0	2	1	3	0	0	0	0	0	1	0	1	7
% App. Total	100	0	0		0	66.7	33.3		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.250	.250	.375	.000	.000	.000	.000	.000	.250	.000	.250	.438

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	**1**	0	**1**
+45 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0
Total Volume	3	0	0	3	0	2	1	3	0	0	0	0	0	1	0	1
% App. Total	100	0	0		0	66.7	33.3		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.250	.250	.375	.000	.000	.000	.000	.000	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

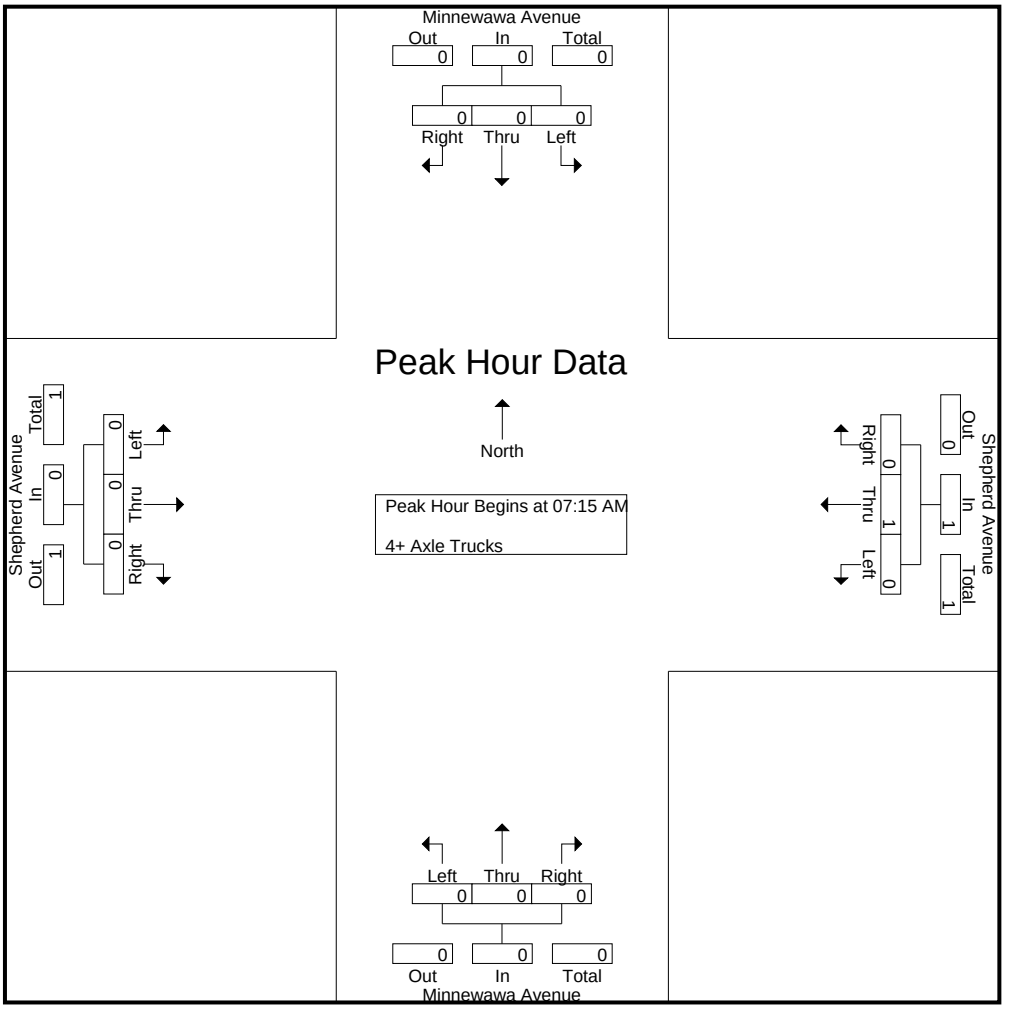
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	1	0	1	0	2	0	2	0	0	0	0	4
Grand Total	1	0	0	1	0	1	0	1	0	3	0	3	0	0	0	0	5
Apprch %	100	0	0		0	100	0		0	100	0		0	0	0		
Total %	20	0	0	20	0	20	0	20	0	60	0	60	0	0	0	0	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

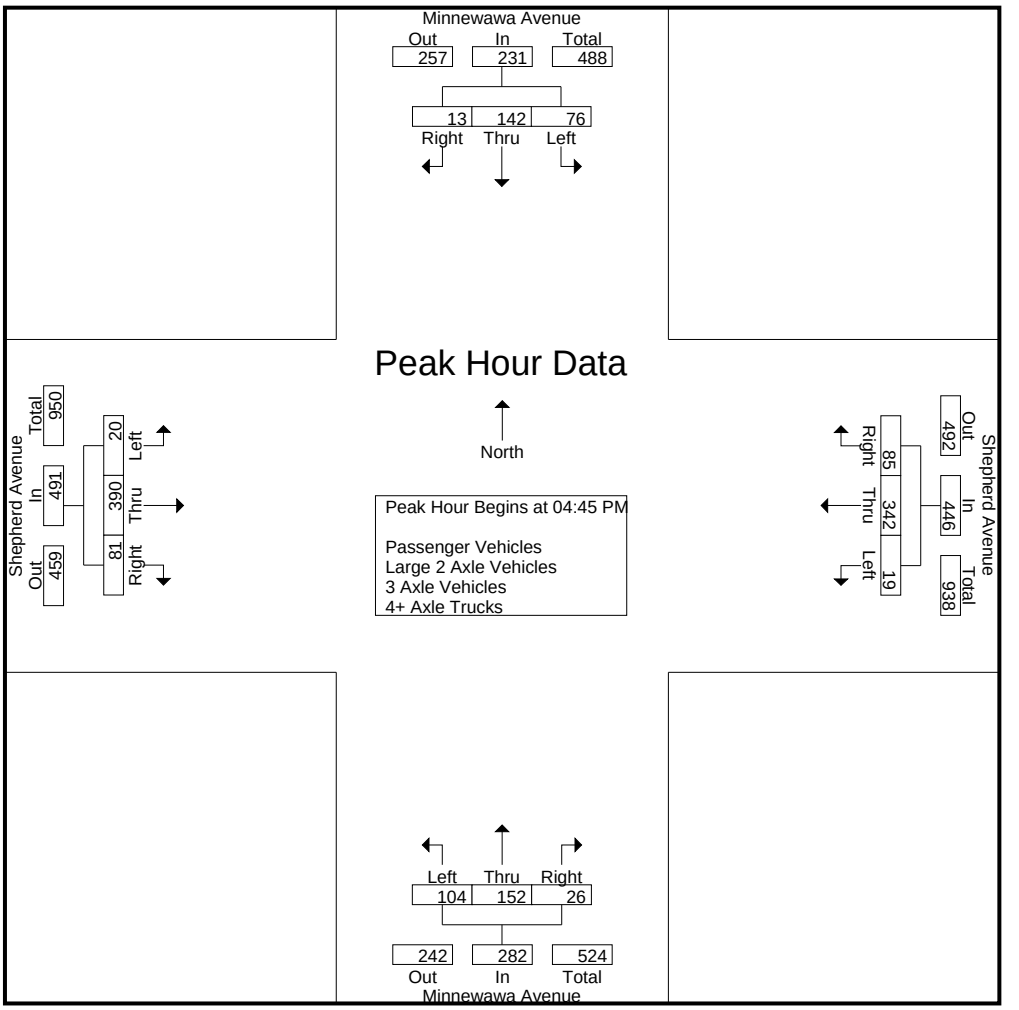
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	14	39	3	56	7	81	19	107	27	31	7	65	6	83	18	107	335
04:15 PM	18	36	2	56	3	90	21	114	26	35	5	66	8	79	21	108	344
04:30 PM	14	39	2	55	5	89	28	122	20	31	3	54	5	84	22	111	342
04:45 PM	20	39	2	61	4	84	18	106	23	28	9	60	3	98	14	115	342
Total	66	153	9	228	19	344	86	449	96	125	24	245	22	344	75	441	1363
05:00 PM	20	22	3	45	6	70	16	92	24	33	7	64	10	97	18	125	326
05:15 PM	14	44	4	62	2	93	27	122	29	47	3	79	3	102	24	129	392
05:30 PM	22	37	4	63	7	95	24	126	28	44	7	79	4	93	25	122	390
05:45 PM	15	22	2	39	4	89	15	108	18	35	9	62	2	89	26	117	326
Total	71	125	13	209	19	347	82	448	99	159	26	284	19	381	93	493	1434
Grand Total	137	278	22	437	38	691	168	897	195	284	50	529	41	725	168	934	2797
Apprch %	31.4	63.6	5		4.2	77	18.7		36.9	53.7	9.5		4.4	77.6	18		
Total %	4.9	9.9	0.8	15.6	1.4	24.7	6	32.1	7	10.2	1.8	18.9	1.5	25.9	6	33.4	
Passenger Vehicles	135	270	22	427	37	686	167	890	192	281	50	523	41	719	166	926	2766
% Passenger Vehicles	98.5	97.1	100	97.7	97.4	99.3	99.4	99.2	98.5	98.9	100	98.9	100	99.2	98.8	99.1	98.9
Large 2 Axle Vehicles	2	7	0	9	1	5	1	7	3	3	0	6	0	6	2	8	30
% Large 2 Axle Vehicles	1.5	2.5	0	2.1	2.6	0.7	0.6	0.8	1.5	1.1	0	1.1	0	0.8	1.2	0.9	1.1
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	0.4	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	20	39	2	61	4	84	18	106	23	28	**9**	60	3	98	14	115	342
05:00 PM	20	22	3	45	6	70	16	92	24	33	7	64	**10**	97	18	125	326
05:15 PM	14	**44**	**4**	62	2	93	**27**	122	**29**	**47**	3	**79**	3	**102**	24	**129**	**392**
05:30 PM	**22**	37	4	**63**	**7**	**95**	24	**126**	28	44	7	79	4	93	**25**	122	390
Total Volume	76	142	13	231	19	342	85	446	104	152	26	282	20	390	81	491	1450
% App. Total	32.9	61.5	5.6		4.3	76.7	19.1		36.9	53.9	9.2		4.1	79.4	16.5		
PHF	.864	.807	.813	.917	.679	.900	.787	.885	.897	.809	.722	.892	.500	.956	.810	.952	.925

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	20	39	2	61	**7**	81	19	107	24	33	7	64	**10**	97	18	125
+15 mins.	20	22	3	45	3	**90**	21	114	**29**	**47**	3	**79**	3	**102**	24	**129**
+30 mins.	14	**44**	**4**	62	5	89	**28**	**122**	28	44	7	79	4	93	25	122
+45 mins.	**22**	37	4	**63**	4	84	18	106	18	35	**9**	62	2	89	**26**	117
Total Volume	76	142	13	231	19	344	86	449	99	159	26	284	19	381	93	493
% App. Total	32.9	61.5	5.6		4.2	76.6	19.2		34.9	56	9.2		3.9	77.3	18.9	
PHF	.864	.807	.813	.917	.679	.956	.768	.920	.853	.846	.722	.899	.475	.934	.894	.955

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

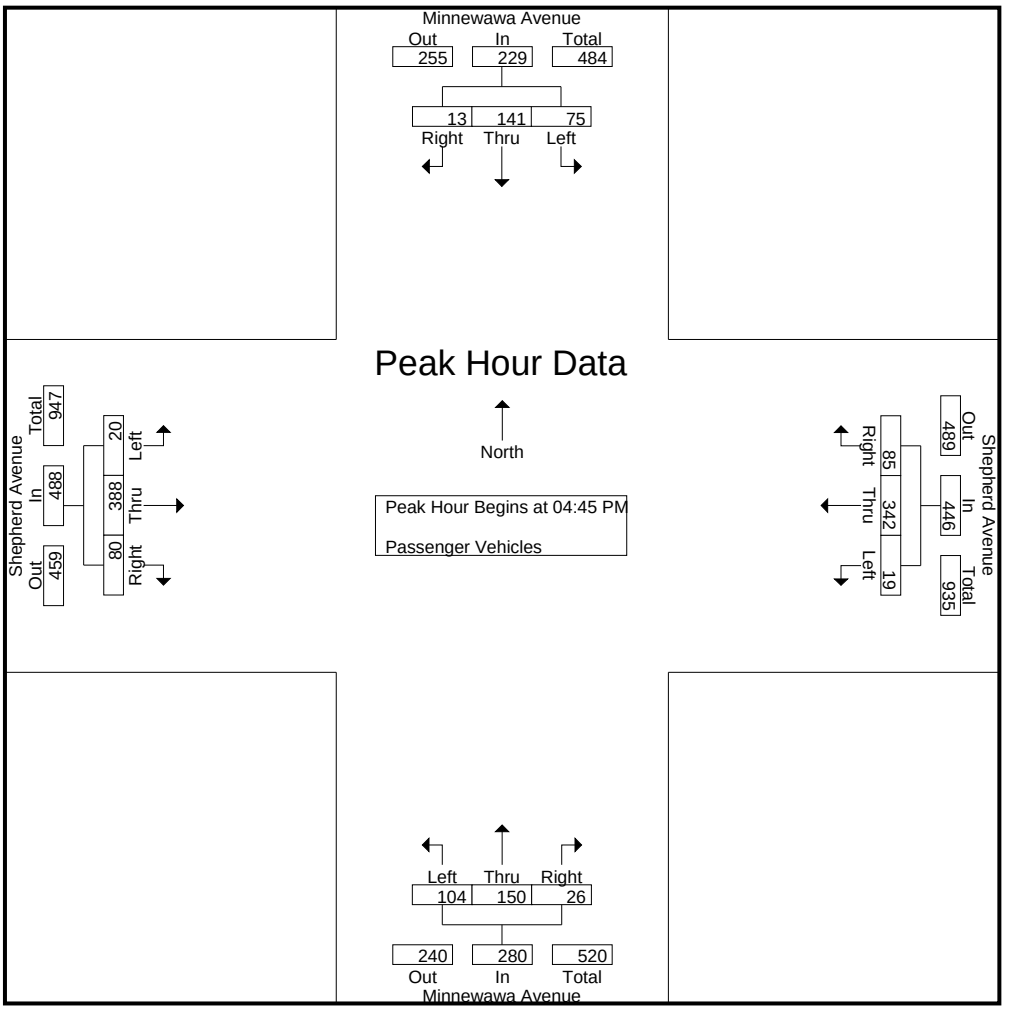
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	13	34	3	50	6	78	19	103	26	31	7	64	6	83	17	106	323
04:15 PM	18	35	2	55	3	89	20	112	24	35	5	64	8	76	21	105	336
04:30 PM	14	38	2	54	5	88	28	121	20	31	3	54	5	84	22	111	340
04:45 PM	19	39	2	60	4	84	18	106	23	28	9	60	3	96	14	113	339
Total	64	146	9	219	18	339	85	442	93	125	24	242	22	339	74	435	1338
05:00 PM	20	21	3	44	6	70	16	92	24	31	7	62	10	97	18	125	323
05:15 PM	14	44	4	62	2	93	27	122	29	47	3	79	3	102	23	128	391
05:30 PM	22	37	4	63	7	95	24	126	28	44	7	79	4	93	25	122	390
05:45 PM	15	22	2	39	4	89	15	108	18	34	9	61	2	88	26	116	324
Total	71	124	13	208	19	347	82	448	99	156	26	281	19	380	92	491	1428
Grand Total	135	270	22	427	37	686	167	890	192	281	50	523	41	719	166	926	2766
Apprch %	31.6	63.2	5.2		4.2	77.1	18.8		36.7	53.7	9.6		4.4	77.6	17.9		
Total %	4.9	9.8	0.8	15.4	1.3	24.8	6	32.2	6.9	10.2	1.8	18.9	1.5	26	6	33.5	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	19	39	2	60	4	84	18	106	23	28	**9**	60	3	96	14	113	339
05:00 PM	20	21	3	44	6	70	16	92	24	31	7	62	**10**	97	18	125	323
05:15 PM	14	**44**	**4**	62	2	93	**27**	122	**29**	**47**	3	**79**	3	**102**	23	**128**	**391**
05:30 PM	**22**	37	4	**63**	**7**	**95**	24	**126**	28	44	7	79	4	93	**25**	122	390
Total Volume	75	141	13	229	19	342	85	446	104	150	26	280	20	388	80	488	1443
% App. Total	32.8	61.6	5.7		4.3	76.7	19.1		37.1	53.6	9.3		4.1	79.5	16.4		
PHF	.852	.801	.813	.909	.679	.900	.787	.885	.897	.798	.722	.886	.500	.951	.800	.953	.923

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	19	39	2	60	4	84	18	106	23	28	**9**	60	3	96	14	113
+15 mins.	20	21	3	44	6	70	16	92	24	31	7	62	**10**	97	18	125
+30 mins.	14	**44**	**4**	62	2	93	**27**	122	**29**	**47**	3	**79**	3	**102**	23	**128**
+45 mins.	**22**	37	4	**63**	**7**	**95**	24	**126**	28	44	7	79	4	93	**25**	122
Total Volume	75	141	13	229	19	342	85	446	104	150	26	280	20	388	80	488
% App. Total	32.8	61.6	5.7		4.3	76.7	19.1		37.1	53.6	9.3		4.1	79.5	16.4	
PHF	.852	.801	.813	.909	.679	.900	.787	.885	.897	.798	.722	.886	.500	.951	.800	.953

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

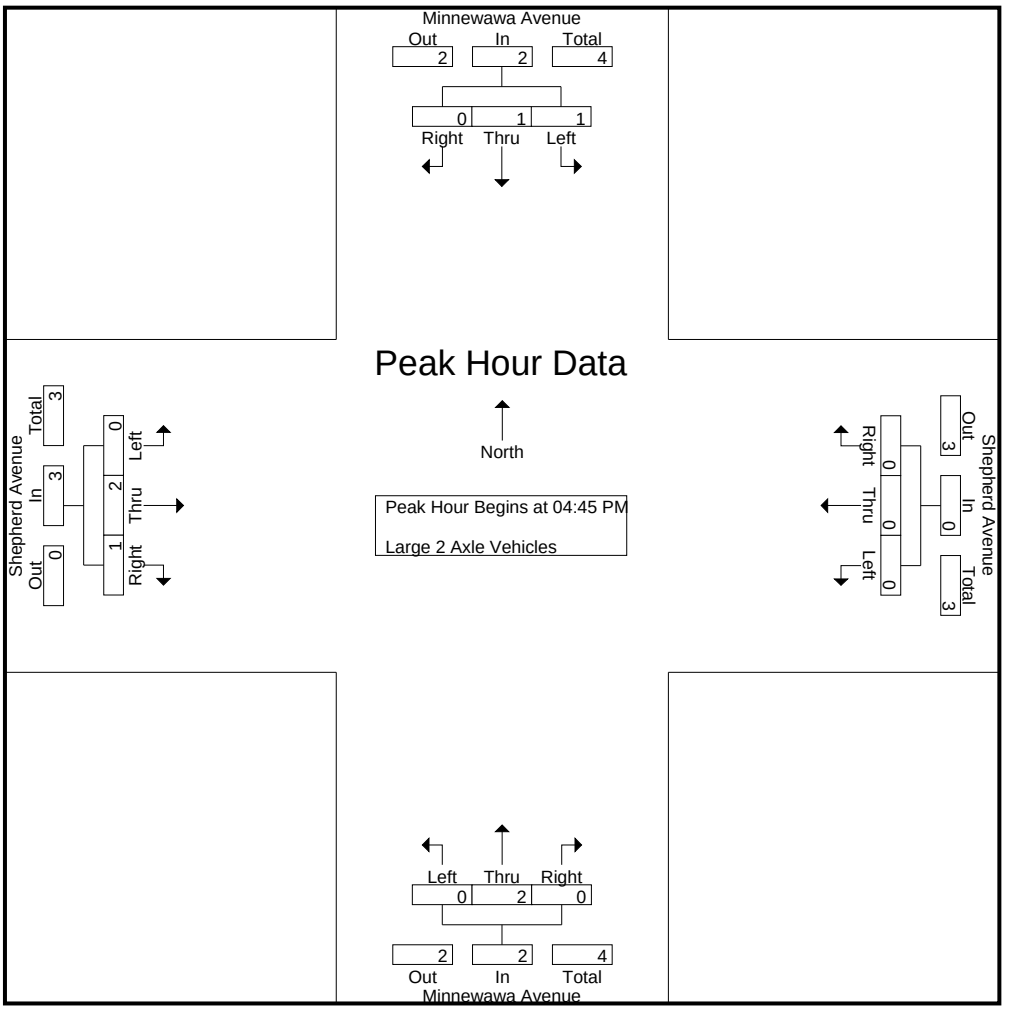
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	4	0	5	1	3	0	4	1	0	0	1	0	0	1	1	11
04:15 PM	0	1	0	1	0	1	1	2	2	0	0	2	0	3	0	3	8
04:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
04:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	3
Total	2	6	0	8	1	5	1	7	3	0	0	3	0	5	1	6	24
05:00 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
Total	0	1	0	1	0	0	0	0	0	3	0	3	0	1	1	2	6
Grand Total	2	7	0	9	1	5	1	7	3	3	0	6	0	6	2	8	30
Apprch %	22.2	77.8	0		14.3	71.4	14.3		50	50	0		0	75	25		
Total %	6.7	23.3	0	30	3.3	16.7	3.3	23.3	10	10	0	20	0	20	6.7	26.7	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	**2**	0	**2**	**3**
05:00 PM	0	**1**	0	1	0	0	0	0	0	**2**	0	**2**	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	0	0	0	0	0	2	0	2	0	2	1	3	7
% App. Total	50	50	0		0	0	0		0	100	0		0	66.7	33.3		
PHF	.250	.250	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.250	.375	.583

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	**2**	0	**2**
+15 mins.	0	**1**	0	1	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	0	0	0	0	0	2	0	2	0	2	1	3
% App. Total	50	50	0		0	0	0		0	100	0		0	66.7	33.3	
PHF	.250	.250	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.250	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

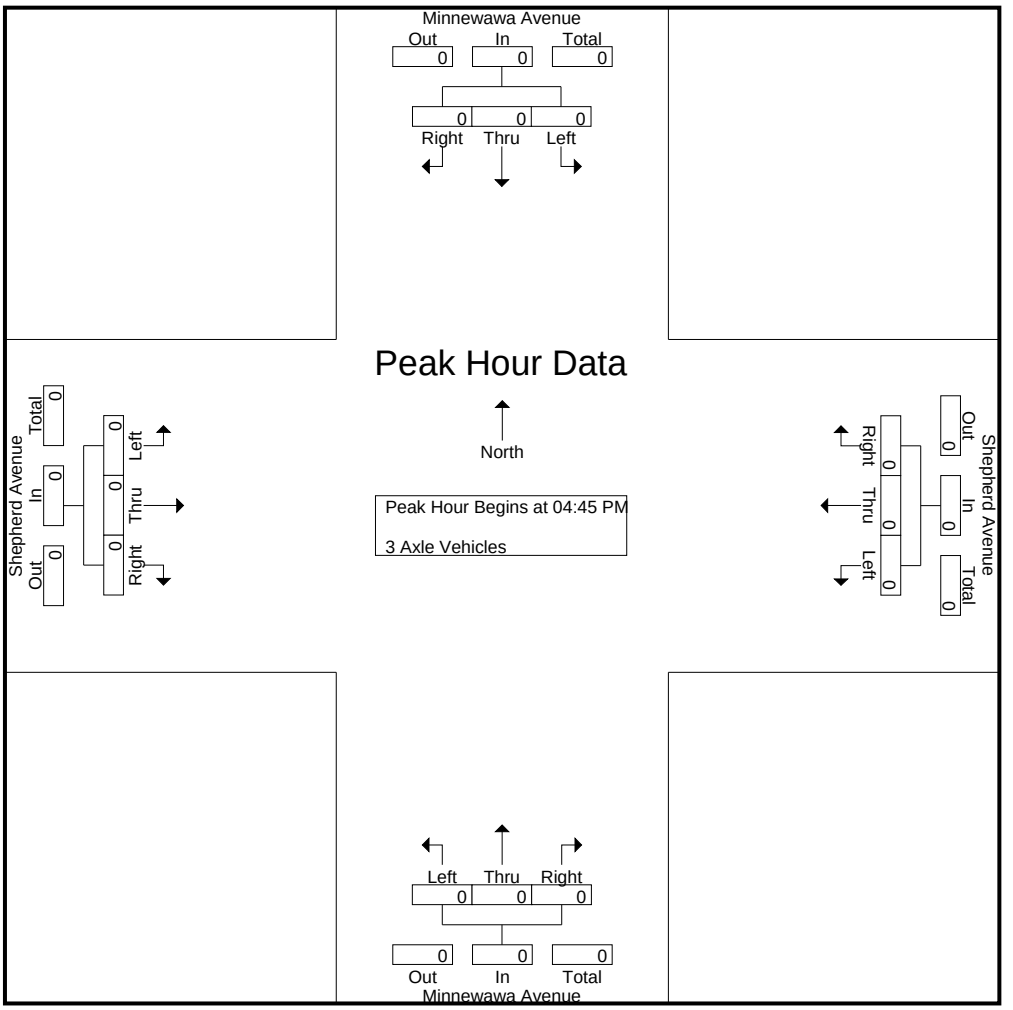
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

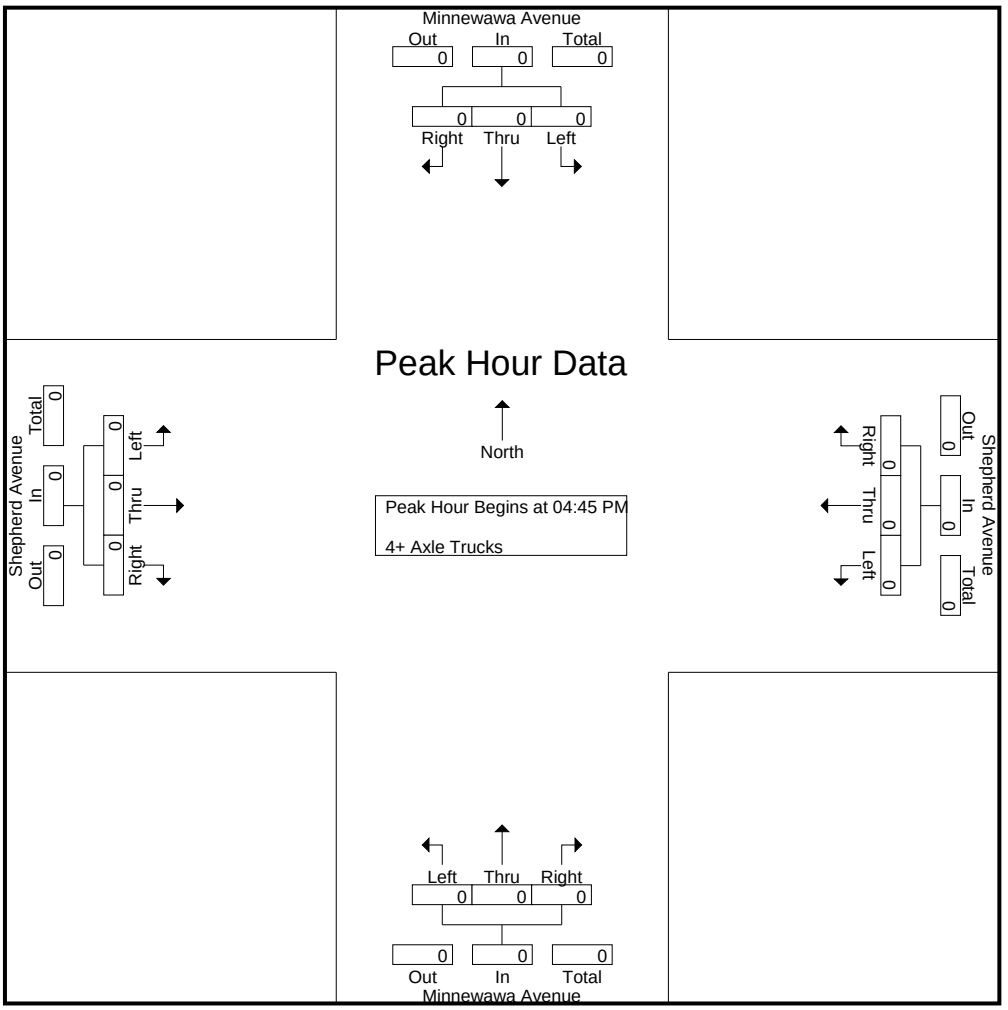
	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Minnewawa Avenue Southbound				Shepherd Avenue Westbound				Minnewawa Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 06_CVS_Min_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Minnewawa Avenue	East Leg Shepherd Avenue	South Leg Minnewawa Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

	North Leg Minnewawa Avenue	East Leg Shepherd Avenue	South Leg Minnewawa Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Minnewawa Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Minnewawa Avenue			Westbound Shepherd Avenue			Northbound Minnewawa Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	1	0	0	1	1	2	0	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL VOLUMES:	1	1	1	0	1	2	2	2	0	1	1	0	12

	Southbound Minnewawa Avenue			Westbound Shepherd Avenue			Northbound Minnewawa Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	1	0	2

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Baron Avenue
Weather: Clear

File Name : 07_CVS_Clo_Baron AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

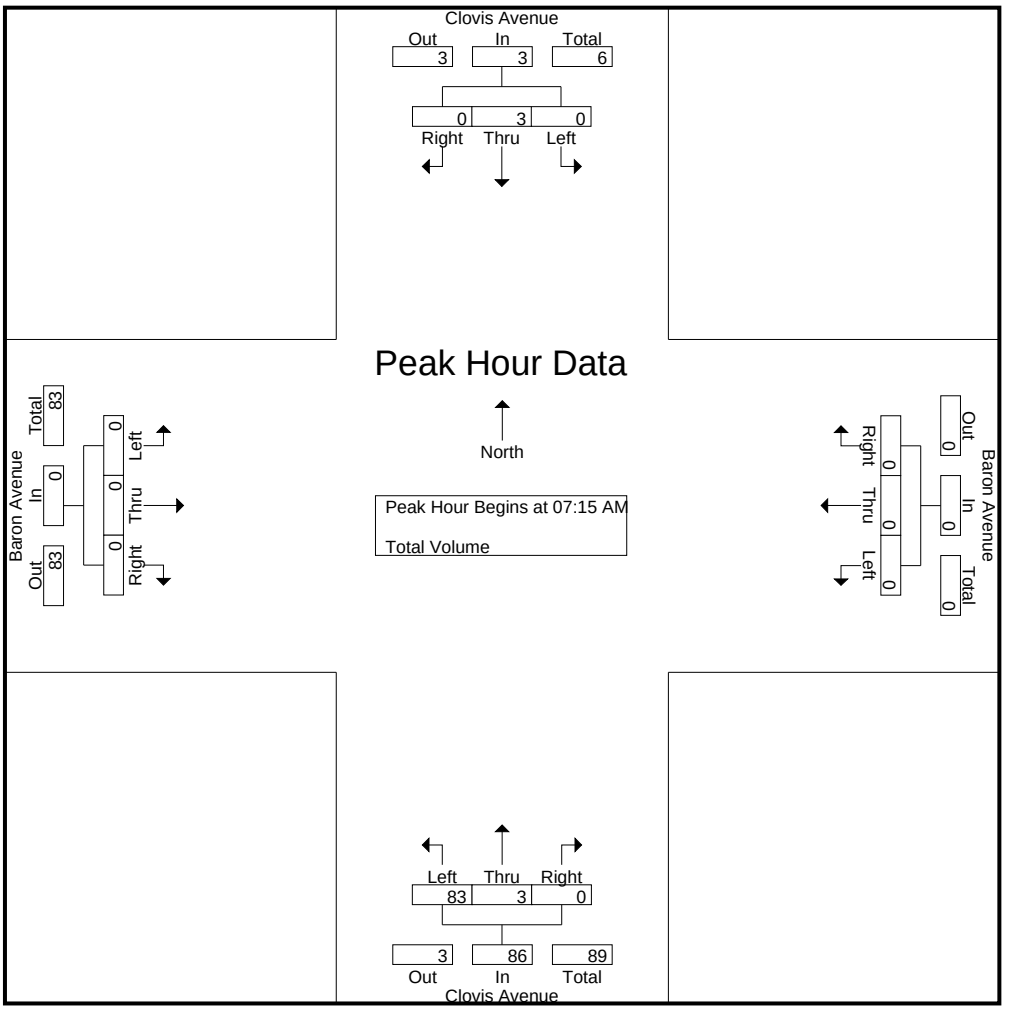
	Clovis Avenue Southbound				Baron Avenue Westbound				Clovis Avenue Northbound				Baron Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	6
07:15 AM	0	2	0	2	0	0	0	0	11	2	0	13	0	0	0	0	15
07:30 AM	0	1	0	1	0	0	0	0	30	1	0	31	0	0	0	0	32
07:45 AM	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	23
Total	0	3	0	3	0	0	0	0	70	3	0	73	0	0	0	0	76
08:00 AM	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0	0	19
08:15 AM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
08:30 AM	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0	0	19
08:45 AM	0	0	0	0	0	0	0	0	16	0	0	16	0	0	0	0	16
Total	0	0	0	0	0	0	0	0	64	0	0	64	0	0	0	0	64
Grand Total	0	3	0	3	0	0	0	0	134	3	0	137	0	0	0	0	140
Apprch %	0	100	0		0	0	0		97.8	2.2	0		0	0	0		
Total %	0	2.1	0	2.1	0	0	0	0	95.7	2.1	0	97.9	0	0	0	0	

	Clovis Avenue Southbound				Baron Avenue Westbound				Clovis Avenue Northbound				Baron Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**2**	0	**2**	0	0	0	0	11	**2**	0	13	0	0	0	0	15
07:30 AM	0	1	0	1	0	0	0	0	**30**	1	0	**31**	0	0	0	0	**32**
07:45 AM	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	23
08:00 AM	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0	0	19
Total Volume	0	3	0	3	0	0	0	0	83	3	0	86	0	0	0	0	89
% App. Total	0	100	0		0	0	0		96.5	3.5	0		0	0	0		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.692	.375	.000	.694	.000	.000	.000	.000	.695

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Baron Avenue
Weather: Clear

File Name : 07_CVS_Clo_Baron AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	11	**2**	0	13	0	0	0	0
+15 mins.	0	**2**	0	**2**	0	0	0	0	**30**	1	0	**31**	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	23	0	0	23	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	83	3	0	86	0	0	0	0
% App. Total	0	100	0		0	0	0		96.5	3.5	0		0	0	0	
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.692	.375	.000	.694	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Baron Avenue
Weather: Clear

File Name : 07_CVS_Clo_Baron PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

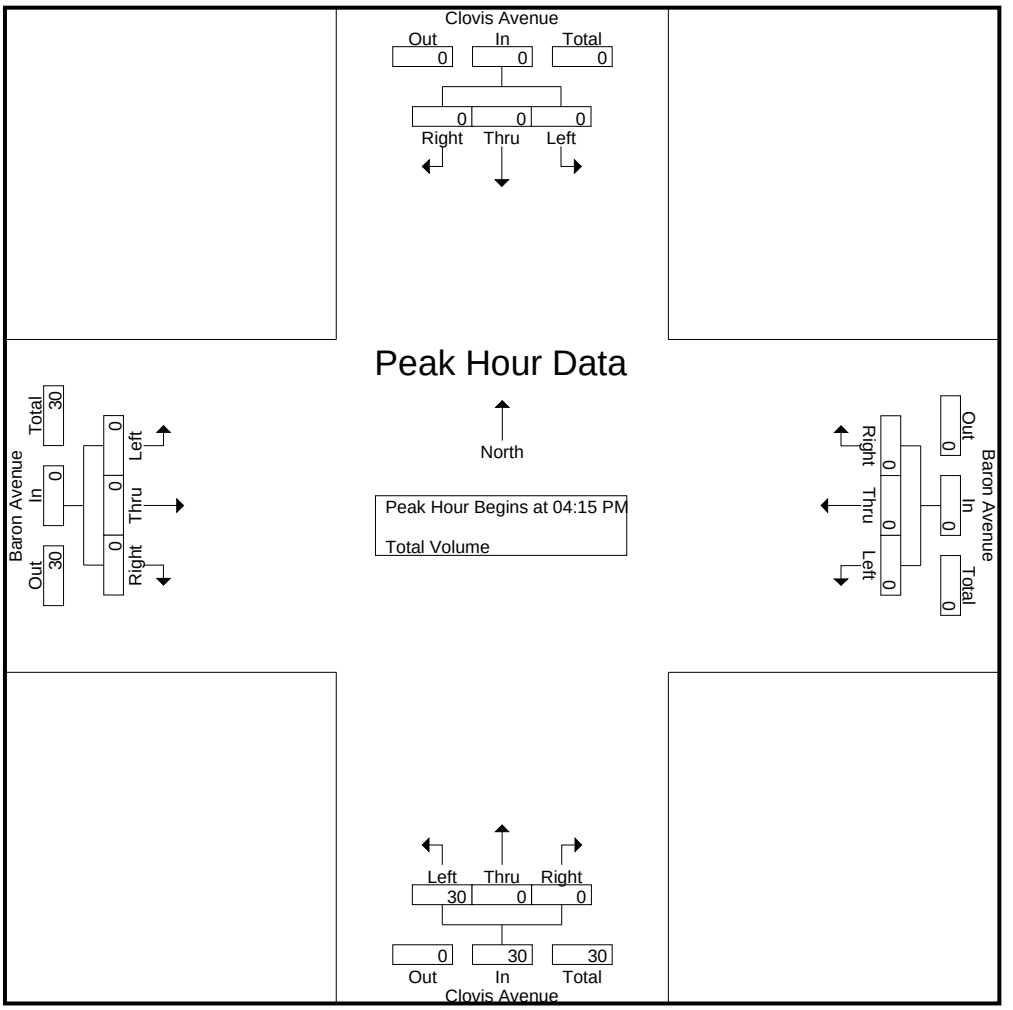
	Clovis Avenue Southbound				Baron Avenue Westbound				Clovis Avenue Northbound				Baron Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	9
04:15 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
Total	0	0	0	0	0	0	0	0	29	0	0	29	0	0	0	0	29
05:00 PM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
05:15 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	0	3	0	1	4	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	20	0	1	21	0	0	0	0	21
Grand Total	0	0	0	0	0	0	0	0	49	0	1	50	0	0	0	0	50
Apprch %	0	0	0		0	0	0		98	0	2		0	0	0		
Total %	0	0	0	0	0	0	0	0	98	0	2	100	0	0	0	0	

	Clovis Avenue Southbound				Baron Avenue Westbound				Clovis Avenue Northbound				Baron Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	5
04:45 PM	0	0	0	0	0	0	0	0	**10**	0	0	**10**	0	0	0	0	**10**
05:00 PM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
Total Volume	0	0	0	0	0	0	0	0	30	0	0	30	0	0	0	0	30
% App. Total	0	0	0		0	0	0		100	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Baron Avenue
Weather: Clear

File Name : 07_CVS_Clo_Baron PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	**10**	0	0	**10**	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	30	0	0	30	0	0	0	0
% App. Total	0	0	0		0	0	0		100	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.000	.000	.000

Location: Clovis
N/S: Clovis Avenue
E/W: Baron Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Clovis Avenue	East Leg Baron Avenue	South Leg Clovis Avenue	West Leg Baron Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Clovis Avenue	East Leg Baron Avenue	South Leg Clovis Avenue	West Leg Baron Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Clovis Avenue
E/W: Baron Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Clovis Avenue			Westbound Baron Avenue			Northbound Clovis Avenue			Eastbound Baron Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Clovis Avenue			Westbound Baron Avenue			Northbound Clovis Avenue			Eastbound Baron Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

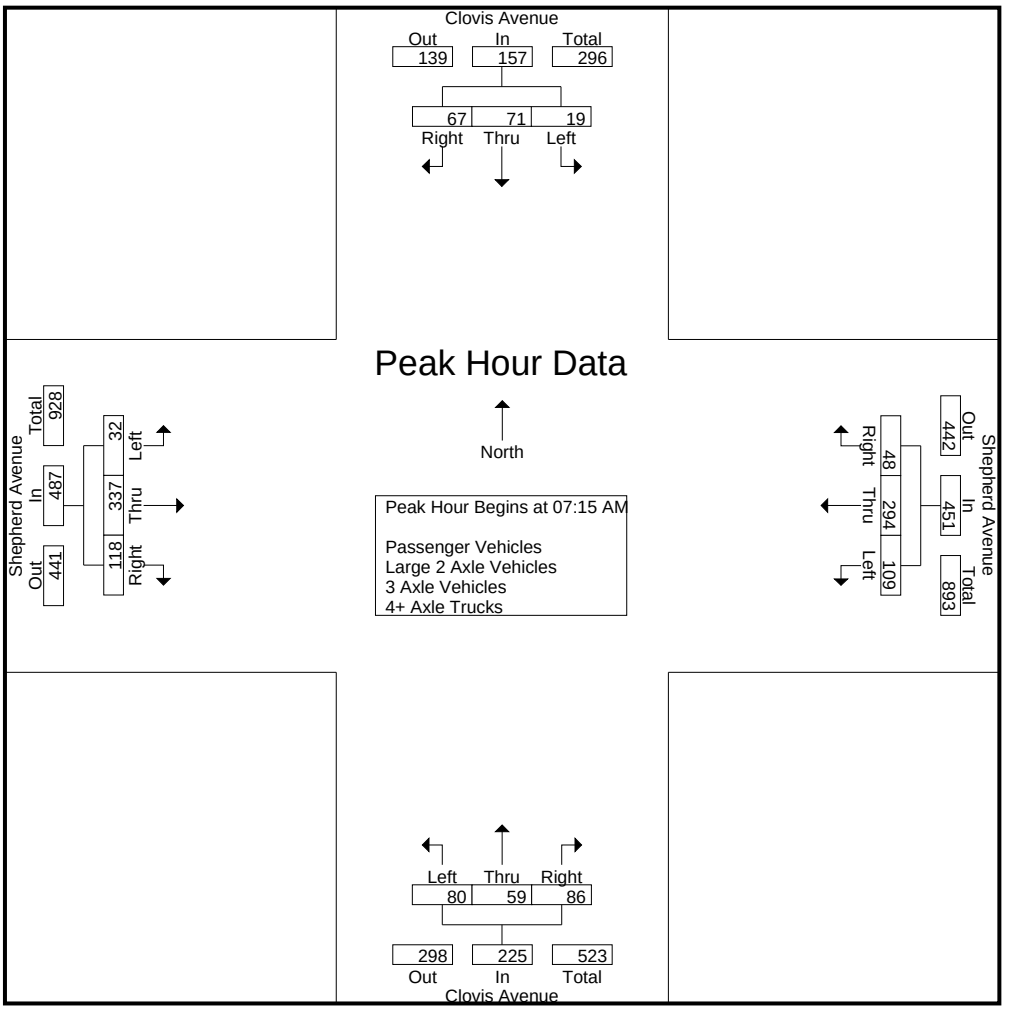
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	5	3	11	16	74	2	92	13	13	3	29	4	39	12	55	187
07:15 AM	3	11	12	26	41	70	8	119	25	15	26	66	2	69	19	90	301
07:30 AM	8	33	30	71	29	79	31	139	29	16	24	69	3	75	39	117	396
07:45 AM	3	21	9	33	21	76	3	100	13	18	22	53	8	107	30	145	331
Total	17	70	54	141	107	299	44	450	80	62	75	217	17	290	100	407	1215
08:00 AM	5	6	16	27	18	69	6	93	13	10	14	37	19	86	30	135	292
08:15 AM	2	11	4	17	14	78	5	97	20	16	16	52	17	63	23	103	269
08:30 AM	6	12	9	27	10	70	1	81	18	6	10	34	10	51	23	84	226
08:45 AM	6	6	12	24	9	79	1	89	13	11	10	34	5	52	26	83	230
Total	19	35	41	95	51	296	13	360	64	43	50	157	51	252	102	405	1017
Grand Total	36	105	95	236	158	595	57	810	144	105	125	374	68	542	202	812	2232
Apprch %	15.3	44.5	40.3		19.5	73.5	7		38.5	28.1	33.4		8.4	66.7	24.9		
Total %	1.6	4.7	4.3	10.6	7.1	26.7	2.6	36.3	6.5	4.7	5.6	16.8	3	24.3	9.1	36.4	
Passenger Vehicles	30	97	91	218	156	579	54	789	139	93	120	352	63	523	200	786	2145
% Passenger Vehicles	83.3	92.4	95.8	92.4	98.7	97.3	94.7	97.4	96.5	88.6	96	94.1	92.6	96.5	99	96.8	96.1
Large 2 Axle Vehicles	5	4	2	11	2	12	3	17	5	7	3	15	3	11	0	14	57
% Large 2 Axle Vehicles	13.9	3.8	2.1	4.7	1.3	2	5.3	2.1	3.5	6.7	2.4	4	4.4	2	0	1.7	2.6
3 Axle Vehicles	1	2	1	4	0	4	0	4	0	4	1	5	2	8	1	11	24
% 3 Axle Vehicles	2.8	1.9	1.1	1.7	0	0.7	0	0.5	0	3.8	0.8	1.3	2.9	1.5	0.5	1.4	1.1
4+ Axle Trucks	0	2	1	3	0	0	0	0	0	1	1	2	0	0	1	1	6
% 4+ Axle Trucks	0	1.9	1.1	1.3	0	0	0	0	0	1	0.8	0.5	0	0	0.5	0.1	0.3

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	11	12	26	**41**	70	8	119	25	15	**26**	66	2	69	19	90	301
07:30 AM	**8**	**33**	**30**	**71**	29	**79**	**31**	**139**	**29**	16	24	**69**	3	75	**39**	117	**396**
07:45 AM	3	21	9	33	21	76	3	100	13	**18**	22	53	8	**107**	30	**145**	331
08:00 AM	5	6	16	27	18	69	6	93	13	10	14	37	**19**	86	30	135	292
Total Volume	19	71	67	157	109	294	48	451	80	59	86	225	32	337	118	487	1320
% App. Total	12.1	45.2	42.7		24.2	65.2	10.6		35.6	26.2	38.2		6.6	69.2	24.2		
PHF	.594	.538	.558	.553	.665	.930	.387	.811	.690	.819	.827	.815	.421	.787	.756	.840	.833

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	3	11	12	26	**41**	70	8	119	25	15	**26**	66	3	75	**39**	117
+15 mins.	**8**	**33**	**30**	**71**	29	**79**	**31**	**139**	**29**	16	24	**69**	8	**107**	30	**145**
+30 mins.	3	21	9	33	21	76	3	100	13	**18**	22	53	**19**	86	30	135
+45 mins.	5	6	16	27	18	69	6	93	13	10	14	37	17	63	23	103
Total Volume	19	71	67	157	109	294	48	451	80	59	86	225	47	331	122	500
% App. Total	12.1	45.2	42.7		24.2	65.2	10.6		35.6	26.2	38.2		9.4	66.2	24.4	
PHF	.594	.538	.558	.553	.665	.930	.387	.811	.690	.819	.827	.815	.618	.773	.782	.862

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

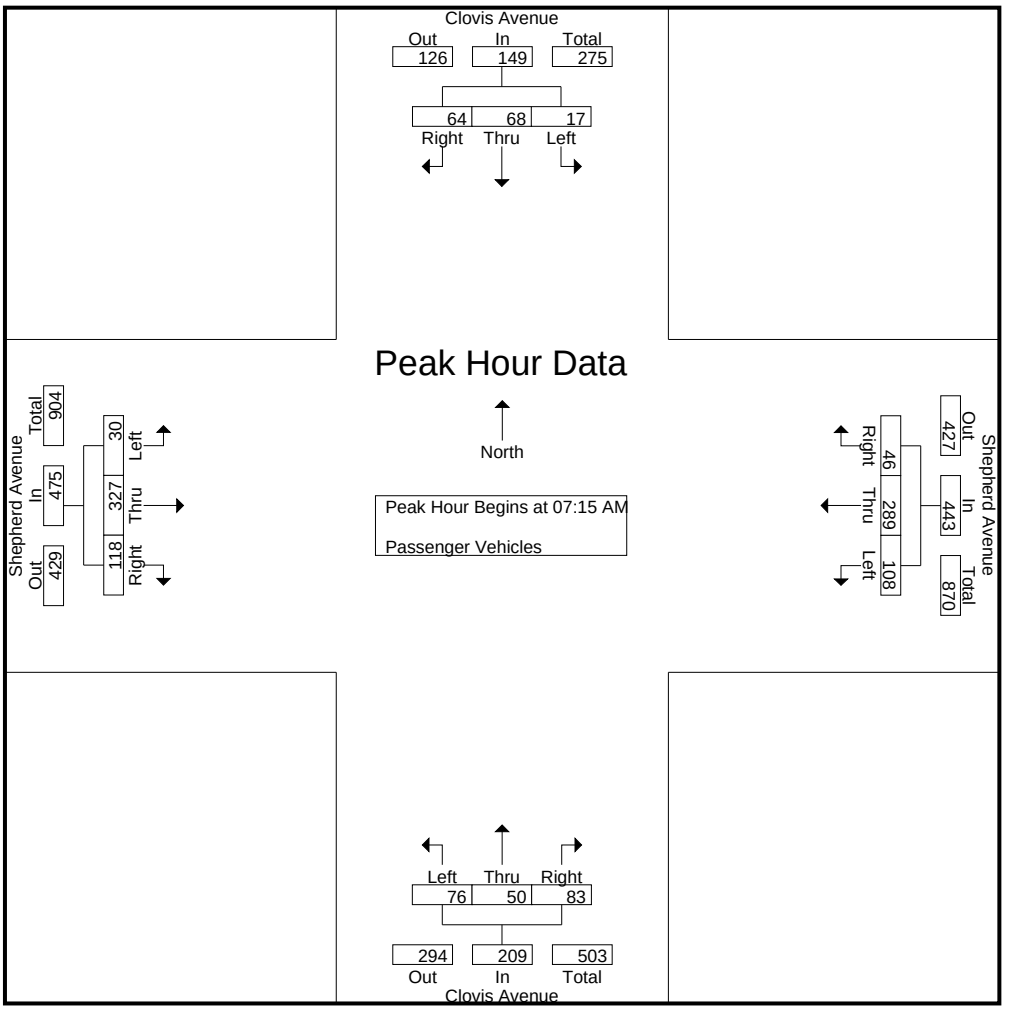
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	3	3	9	15	69	2	86	13	13	2	28	4	39	12	55	178
07:15 AM	3	11	12	26	41	69	8	118	24	13	25	62	2	68	19	89	295
07:30 AM	6	33	30	69	29	79	29	137	28	12	23	63	3	73	39	115	384
07:45 AM	3	19	9	31	20	75	3	98	11	15	22	48	6	100	30	136	313
Total	15	66	54	135	105	292	42	439	76	53	72	201	15	280	100	395	1170
08:00 AM	5	5	13	23	18	66	6	90	13	10	13	36	19	86	30	135	284
08:15 AM	1	10	4	15	14	75	5	94	19	15	15	49	15	60	23	98	256
08:30 AM	5	10	9	24	10	69	1	80	18	6	10	34	10	48	21	79	217
08:45 AM	4	6	11	21	9	77	0	86	13	9	10	32	4	49	26	79	218
Total	15	31	37	83	51	287	12	350	63	40	48	151	48	243	100	391	975
Grand Total	30	97	91	218	156	579	54	789	139	93	120	352	63	523	200	786	2145
Apprch %	13.8	44.5	41.7		19.8	73.4	6.8		39.5	26.4	34.1		8	66.5	25.4		
Total %	1.4	4.5	4.2	10.2	7.3	27	2.5	36.8	6.5	4.3	5.6	16.4	2.9	24.4	9.3	36.6	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	11	12	26	**41**	69	8	118	24	13	**25**	62	2	68	19	89	295
07:30 AM	**6**	**33**	**30**	**69**	29	**79**	**29**	**137**	**28**	12	23	**63**	3	73	**39**	115	**384**
07:45 AM	3	19	9	31	20	75	3	98	11	**15**	22	48	6	**100**	30	**136**	313
08:00 AM	5	5	13	23	18	66	6	90	13	10	13	36	**19**	86	30	135	284
Total Volume	17	68	64	149	108	289	46	443	76	50	83	209	30	327	118	475	1276
% App. Total	11.4	45.6	43		24.4	65.2	10.4		36.4	23.9	39.7		6.3	68.8	24.8		
PHF	.708	.515	.533	.540	.659	.915	.397	.808	.679	.833	.830	.829	.395	.818	.756	.873	.831

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	3	11	12	26	**41**	69	8	118	24	13	**25**	62	2	68	19	89
+15 mins.	**6**	**33**	**30**	**69**	29	**79**	**29**	**137**	**28**	12	23	**63**	3	73	**39**	115
+30 mins.	3	19	9	31	20	75	3	98	11	**15**	22	48	6	**100**	30	**136**
+45 mins.	5	5	13	23	18	66	6	90	13	10	13	36	**19**	86	30	135
Total Volume	17	68	64	149	108	289	46	443	76	50	83	209	30	327	118	475
% App. Total	11.4	45.6	43		24.4	65.2	10.4		36.4	23.9	39.7		6.3	68.8	24.8	
PHF	.708	.515	.533	.540	.659	.915	.397	.808	.679	.833	.830	.829	.395	.818	.756	.873

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

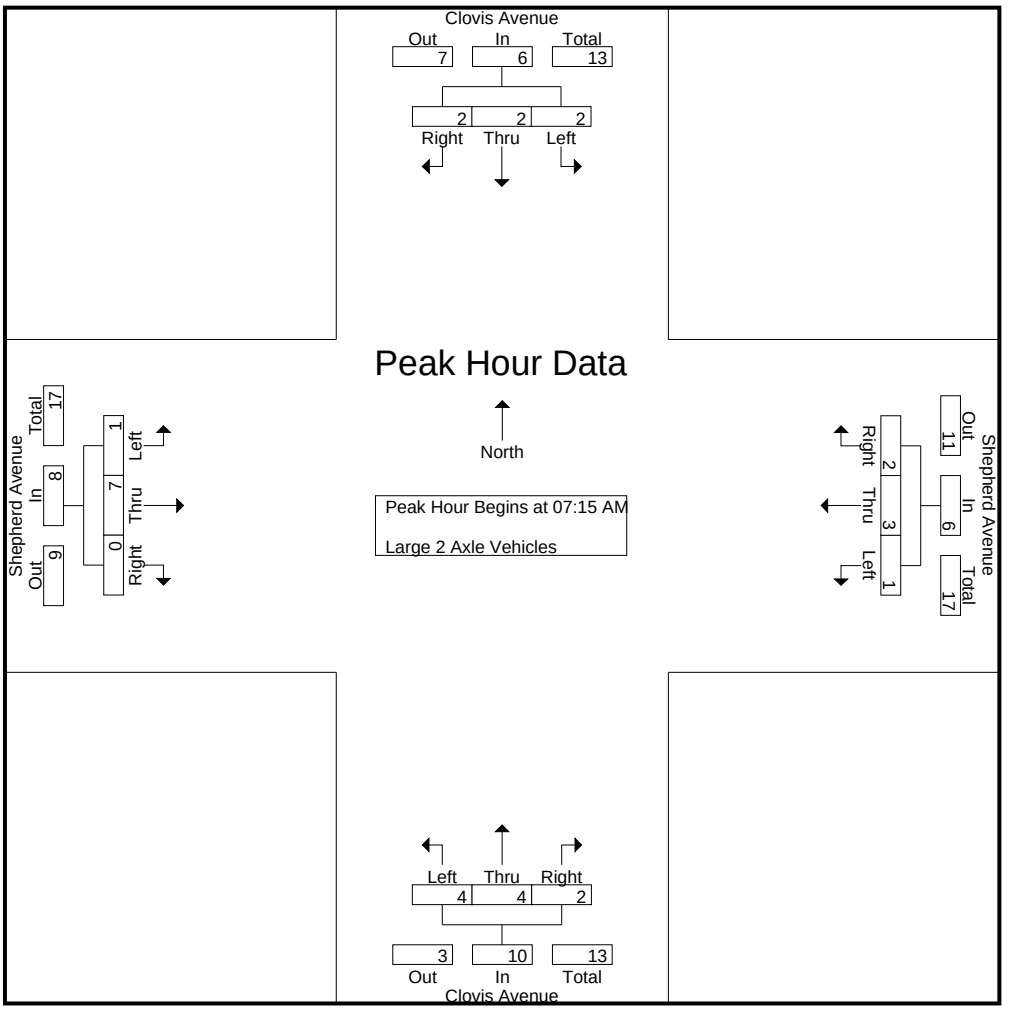
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	5	0	6	0	0	1	1	0	0	0	0	7
07:15 AM	0	0	0	0	0	0	0	0	1	0	1	2	0	1	0	1	3
07:30 AM	2	0	0	2	0	0	2	2	1	1	1	3	0	2	0	2	9
07:45 AM	0	1	0	1	1	1	0	2	2	3	0	5	1	4	0	5	13
Total	2	1	0	3	2	6	2	10	4	4	3	11	1	7	0	8	32
08:00 AM	0	1	2	3	0	2	0	2	0	0	0	0	0	0	0	0	5
08:15 AM	1	0	0	1	0	3	0	3	1	1	0	2	2	2	0	4	10
08:30 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	1	0	1	4
08:45 AM	2	0	0	2	0	0	1	1	0	2	0	2	0	1	0	1	6
Total	3	3	2	8	0	6	1	7	1	3	0	4	2	4	0	6	25
Grand Total	5	4	2	11	2	12	3	17	5	7	3	15	3	11	0	14	57
Apprch %	45.5	36.4	18.2		11.8	70.6	17.6		33.3	46.7	20		21.4	78.6	0		
Total %	8.8	7	3.5	19.3	3.5	21.1	5.3	29.8	8.8	12.3	5.3	26.3	5.3	19.3	0	24.6	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	1	0	**1**	2	0	1	0	1	3
07:30 AM	**2**	0	0	2	0	0	**2**	**2**	1	1	1	3	0	2	0	2	9
07:45 AM	0	**1**	0	1	**1**	1	0	2	**2**	**3**	0	**5**	**1**	**4**	0	**5**	**13**
08:00 AM	0	1	**2**	**3**	0	**2**	0	2	0	0	0	0	0	0	0	0	5
Total Volume	2	2	2	6	1	3	2	6	4	4	2	10	1	7	0	8	30
% App. Total	33.3	33.3	33.3		16.7	50	33.3		40	40	20		12.5	87.5	0		
PHF	.250	.500	.250	.500	.250	.375	.250	.750	.500	.333	.500	.500	.250	.438	.000	.400	.577

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	1	0	**1**	2	0	1	0	1
+15 mins.	**2**	0	0	2	0	0	**2**	**2**	1	1	1	3	0	2	0	2
+30 mins.	0	**1**	0	1	**1**	1	0	2	**2**	**3**	0	**5**	**1**	**4**	0	**5**
+45 mins.	0	1	**2**	**3**	0	**2**	0	2	0	0	0	0	0	0	0	0
Total Volume	2	2	2	6	1	3	2	6	4	4	2	10	1	7	0	8
% App. Total	33.3	33.3	33.3		16.7	50	33.3		40	40	20		12.5	87.5	0	
PHF	.250	.500	.250	.500	.250	.375	.250	.750	.500	.333	.500	.500	.250	.438	.000	.400

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

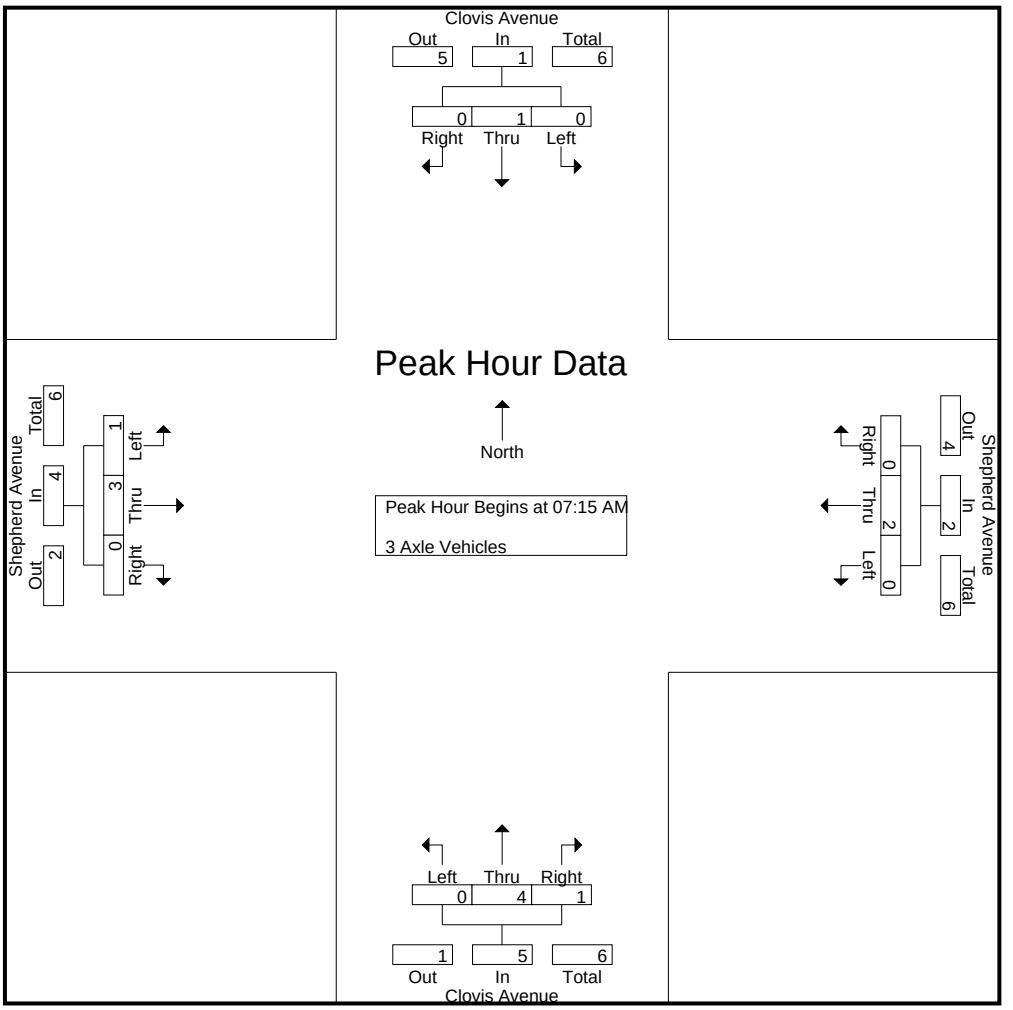
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1	3	0	4	5
Total	0	2	0	2	0	1	0	1	0	4	0	4	1	3	0	4	11
08:00 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	2	1	3	4
08:45 AM	0	0	1	1	0	2	0	2	0	0	0	0	1	2	0	3	6
Total	1	0	1	2	0	3	0	3	0	0	1	1	1	5	1	7	13
Grand Total	1	2	1	4	0	4	0	4	0	4	1	5	2	8	1	11	24
Apprch %	25	50	25		0	100	0		0	80	20		18.2	72.7	9.1		
Total %	4.2	8.3	4.2	16.7	0	16.7	0	16.7	0	16.7	4.2	20.8	8.3	33.3	4.2	45.8	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	**1**	0	**1**	0	**2**	0	**2**	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**	**3**	0	**4**	**5**
08:00 AM	0	0	0	0	0	1	0	1	0	0	**1**	1	0	0	0	0	2
Total Volume	0	1	0	1	0	2	0	2	0	4	1	5	1	3	0	4	12
% App. Total	0	100	0		0	100	0		0	80	20		25	75	0		
PHF	.000	.250	.000	.250	.000	.500	.000	.500	.000	.500	.250	.625	.250	.250	.000	.250	.600

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	**2**	0	**2**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**	**3**	0	**4**
+45 mins.	0	0	0	0	0	1	0	1	0	0	**1**	1	0	0	0	0
Total Volume	0	1	0	1	0	2	0	2	0	4	1	5	1	3	0	4
% App. Total	0	100	0		0	100	0		0	80	20		25	75	0	
PHF	.000	.250	.000	.250	.000	.500	.000	.500	.000	.500	.250	.625	.250	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

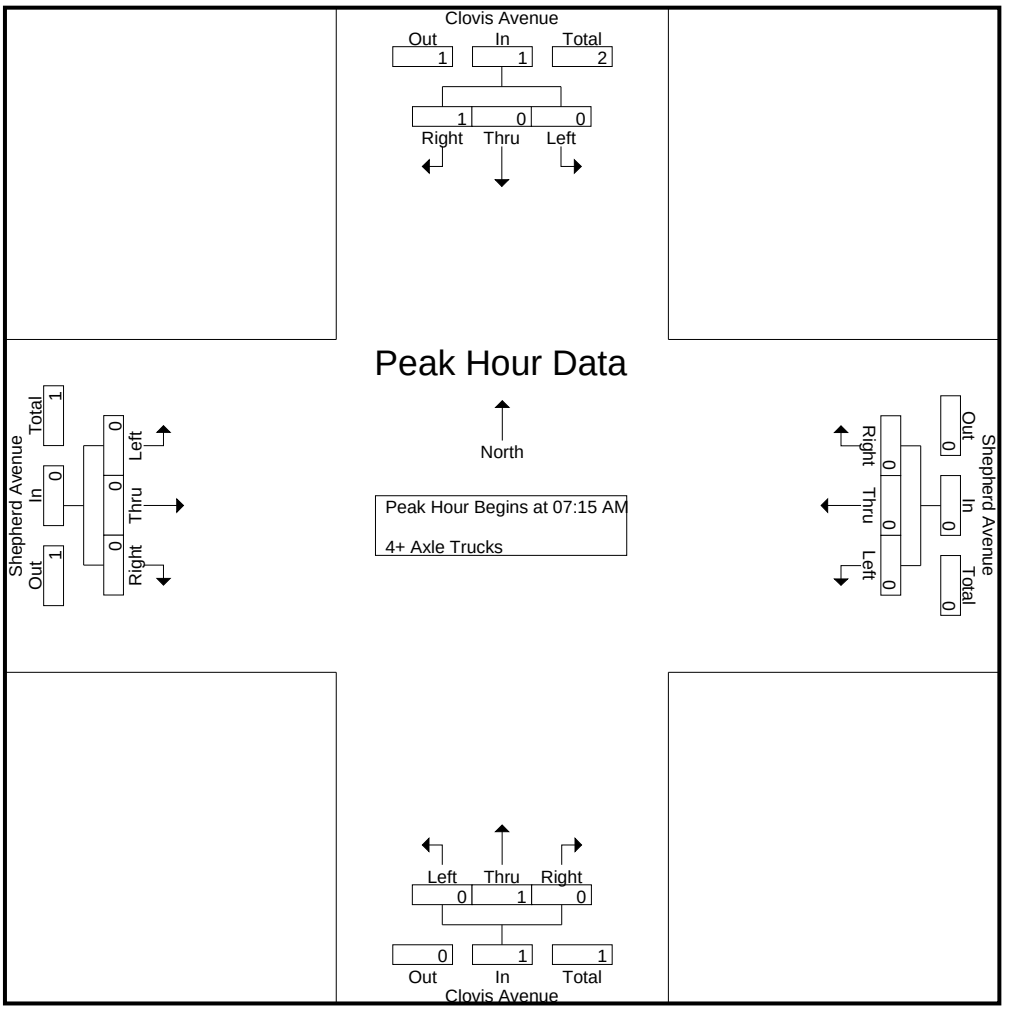
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	2	0	0	0	0	0	0	1	1	0	0	1	1	4
Grand Total	0	2	1	3	0	0	0	0	0	1	1	2	0	0	1	1	6
Apprch %	0	66.7	33.3		0	0	0		0	50	50		0	0	100		
Total %	0	33.3	16.7	50	0	0	0	0	0	16.7	16.7	33.3	0	0	16.7	16.7	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% App. Total	0	0	100		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	0	100		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

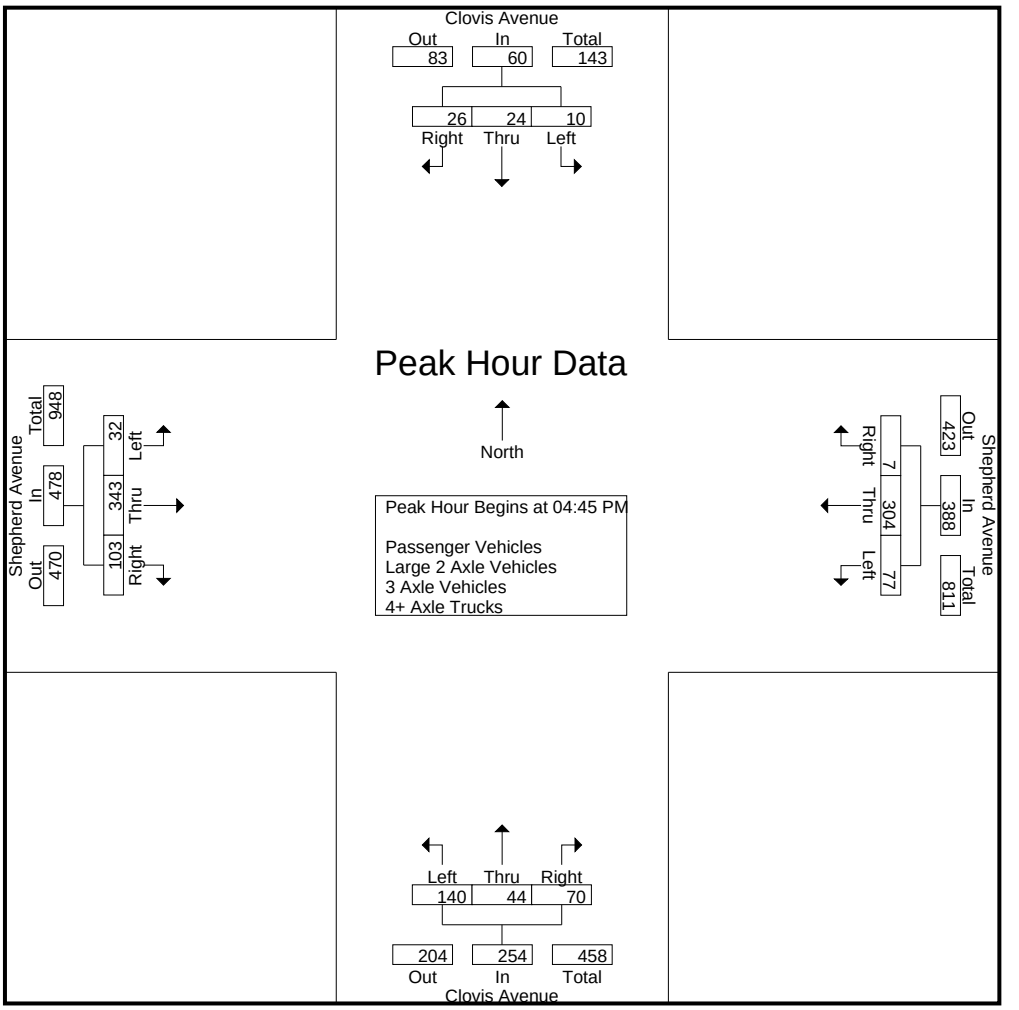
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	11	5	21	16	65	4	85	39	7	14	60	5	66	31	102	268
04:15 PM	2	5	7	14	8	83	9	100	33	10	12	55	3	73	26	102	271
04:30 PM	2	10	4	16	15	75	4	94	29	11	12	52	4	67	26	97	259
04:45 PM	4	7	5	16	17	70	0	87	35	8	21	64	11	79	27	117	284
Total	13	33	21	67	56	293	17	366	136	36	59	231	23	285	110	418	1082
05:00 PM	2	8	4	14	26	65	4	95	35	14	19	68	5	86	29	120	297
05:15 PM	0	6	10	16	17	92	1	110	40	7	14	61	8	92	23	123	310
05:30 PM	4	3	7	14	17	77	2	96	30	15	16	61	8	86	24	118	289
05:45 PM	1	3	4	8	9	76	1	86	25	8	15	48	10	86	18	114	256
Total	7	20	25	52	69	310	8	387	130	44	64	238	31	350	94	475	1152
Grand Total	20	53	46	119	125	603	25	753	266	80	123	469	54	635	204	893	2234
Apprch %	16.8	44.5	38.7		16.6	80.1	3.3		56.7	17.1	26.2		6	71.1	22.8		
Total %	0.9	2.4	2.1	5.3	5.6	27	1.1	33.7	11.9	3.6	5.5	21	2.4	28.4	9.1	40	
Passenger Vehicles	20	53	46	119	123	599	25	747	265	80	121	466	52	625	202	879	2211
% Passenger Vehicles	100	100	100	100	98.4	99.3	100	99.2	99.6	100	98.4	99.4	96.3	98.4	99	98.4	99
Large 2 Axle Vehicles	0	0	0	0	2	4	0	6	1	0	2	3	2	10	2	14	23
% Large 2 Axle Vehicles	0	0	0	0	1.6	0.7	0	0.8	0.4	0	1.6	0.6	3.7	1.6	1	1.6	1
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	7	5	**16**	17	70	0	87	35	8	**21**	64	**11**	79	27	117	284
05:00 PM	2	**8**	4	14	**26**	65	**4**	95	35	14	19	**68**	5	86	**29**	120	297
05:15 PM	0	6	**10**	16	17	**92**	1	**110**	**40**	7	14	61	8	**92**	23	**123**	**310**
05:30 PM	4	3	7	14	17	77	2	96	30	**15**	16	61	8	86	24	118	289
Total Volume	10	24	26	60	77	304	7	388	140	44	70	254	32	343	103	478	1180
% App. Total	16.7	40	43.3		19.8	78.4	1.8		55.1	17.3	27.6		6.7	71.8	21.5		
PHF	.625	.750	.650	.938	.740	.826	.438	.882	.875	.733	.833	.934	.727	.932	.888	.972	.952

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**5**	**11**	5	**21**	17	70	0	87	35	8	**21**	64	**11**	79	27	117
+15 mins.	2	5	**7**	14	**26**	65	**4**	95	35	14	19	**68**	5	86	**29**	120
+30 mins.	2	10	4	16	17	**92**	1	**110**	**40**	7	14	61	8	**92**	23	**123**
+45 mins.	4	7	5	16	17	77	2	96	30	**15**	16	61	8	86	24	118
Total Volume	13	33	21	67	77	304	7	388	140	44	70	254	32	343	103	478
% App. Total	19.4	49.3	31.3		19.8	78.4	1.8		55.1	17.3	27.6		6.7	71.8	21.5	
PHF	.650	.750	.750	.798	.740	.826	.438	.882	.875	.733	.833	.934	.727	.932	.888	.972

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

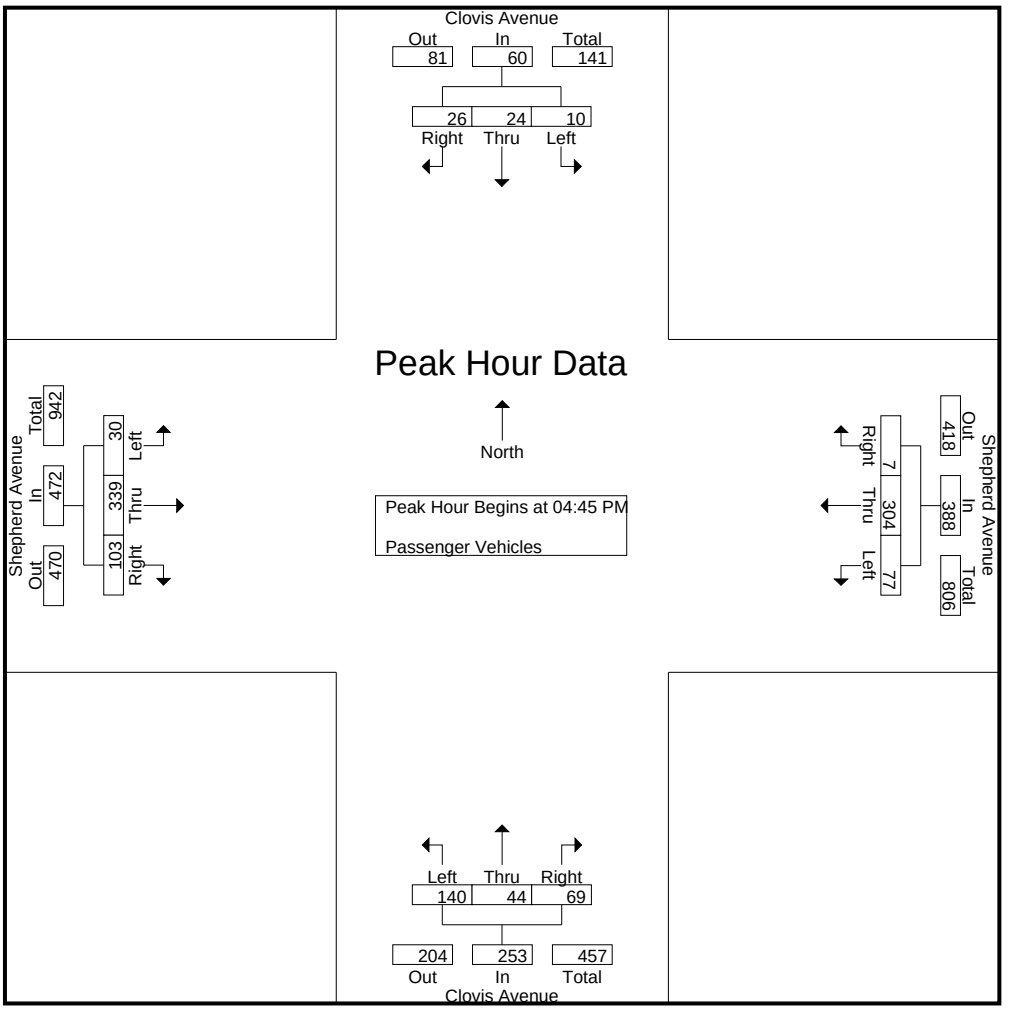
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	11	5	21	14	62	4	80	39	7	13	59	5	65	31	101	261
04:15 PM	2	5	7	14	8	82	9	99	32	10	12	54	3	68	25	96	263
04:30 PM	2	10	4	16	15	75	4	94	29	11	12	52	4	67	26	97	259
04:45 PM	4	7	5	16	17	70	0	87	35	8	21	64	9	76	27	112	279
Total	13	33	21	67	54	289	17	360	135	36	58	229	21	276	109	406	1062
05:00 PM	2	8	4	14	26	65	4	95	35	14	19	68	5	86	29	120	297
05:15 PM	0	6	10	16	17	92	1	110	40	7	13	60	8	92	23	123	309
05:30 PM	4	3	7	14	17	77	2	96	30	15	16	61	8	85	24	117	288
05:45 PM	1	3	4	8	9	76	1	86	25	8	15	48	10	86	17	113	255
Total	7	20	25	52	69	310	8	387	130	44	63	237	31	349	93	473	1149
Grand Total	20	53	46	119	123	599	25	747	265	80	121	466	52	625	202	879	2211
Apprch %	16.8	44.5	38.7		16.5	80.2	3.3		56.9	17.2	26		5.9	71.1	23		
Total %	0.9	2.4	2.1	5.4	5.6	27.1	1.1	33.8	12	3.6	5.5	21.1	2.4	28.3	9.1	39.8	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	7	5	**16**	17	70	0	87	35	8	**21**	64	**9**	76	27	112	279
05:00 PM	2	**8**	4	14	**26**	65	**4**	95	35	14	19	**68**	5	86	**29**	120	297
05:15 PM	0	6	**10**	16	17	**92**	1	**110**	**40**	7	13	60	8	**92**	23	**123**	**309**
05:30 PM	4	3	7	14	17	77	2	96	30	**15**	16	61	8	85	24	117	288
Total Volume	10	24	26	60	77	304	7	388	140	44	69	253	30	339	103	472	1173
% App. Total	16.7	40	43.3		19.8	78.4	1.8		55.3	17.4	27.3		6.4	71.8	21.8		
PHF	.625	.750	.650	.938	.740	.826	.438	.882	.875	.733	.821	.930	.833	.921	.888	.959	.949

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**4**	7	5	**16**	17	70	0	87	35	8	**21**	64	**9**	76	27	112
+15 mins.	2	**8**	4	14	**26**	65	**4**	95	35	14	19	**68**	5	86	**29**	120
+30 mins.	0	6	**10**	16	17	**92**	1	**110**	**40**	7	13	60	8	**92**	23	**123**
+45 mins.	4	3	7	14	17	77	2	96	30	**15**	16	61	8	85	24	117
Total Volume	10	24	26	60	77	304	7	388	140	44	69	253	30	339	103	472
% App. Total	16.7	40	43.3		19.8	78.4	1.8		55.3	17.4	27.3		6.4	71.8	21.8	
PHF	.625	.750	.650	.938	.740	.826	.438	.882	.875	.733	.821	.930	.833	.921	.888	.959

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

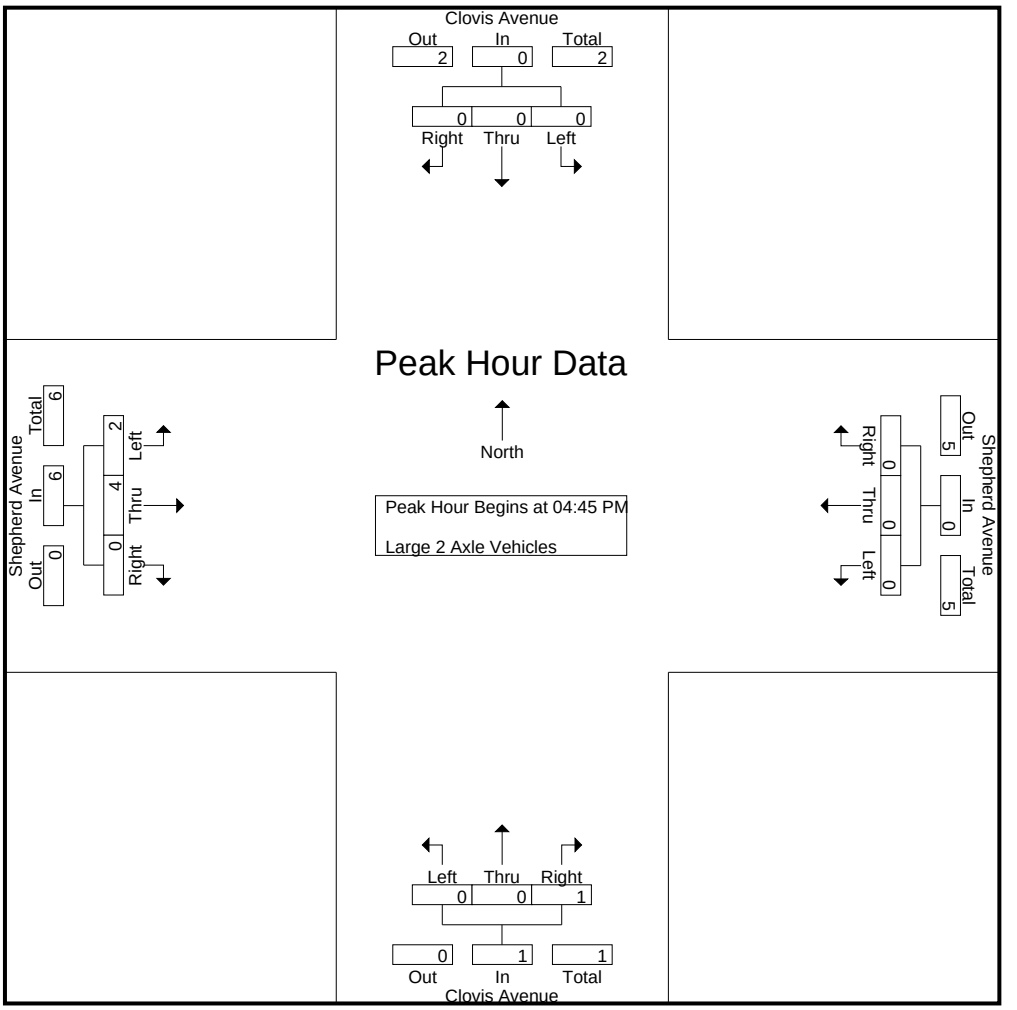
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	2	3	0	5	0	0	1	1	0	1	0	1	7
04:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	5	1	6	8
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5	5
Total	0	0	0	0	2	4	0	6	1	0	1	2	2	9	1	12	20
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	3
Grand Total	0	0	0	0	2	4	0	6	1	0	2	3	2	10	2	14	23
Apprch %	0	0	0		33.3	66.7	0		33.3	0	66.7		14.3	71.4	14.3		
Total %	0	0	0	0	8.7	17.4	0	26.1	4.3	0	8.7	13	8.7	43.5	8.7	60.9	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**3**	0	**5**	**5**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	2	4	0	6	7
% App. Total	0	0	0		0	0	0		0	0	100		33.3	66.7	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250	.333	.000	.300	.350

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**3**	0	**5**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	2	4	0	6
% App. Total	0	0	0		0	0	0		0	0	100		33.3	66.7	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250	.333	.000	.300

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

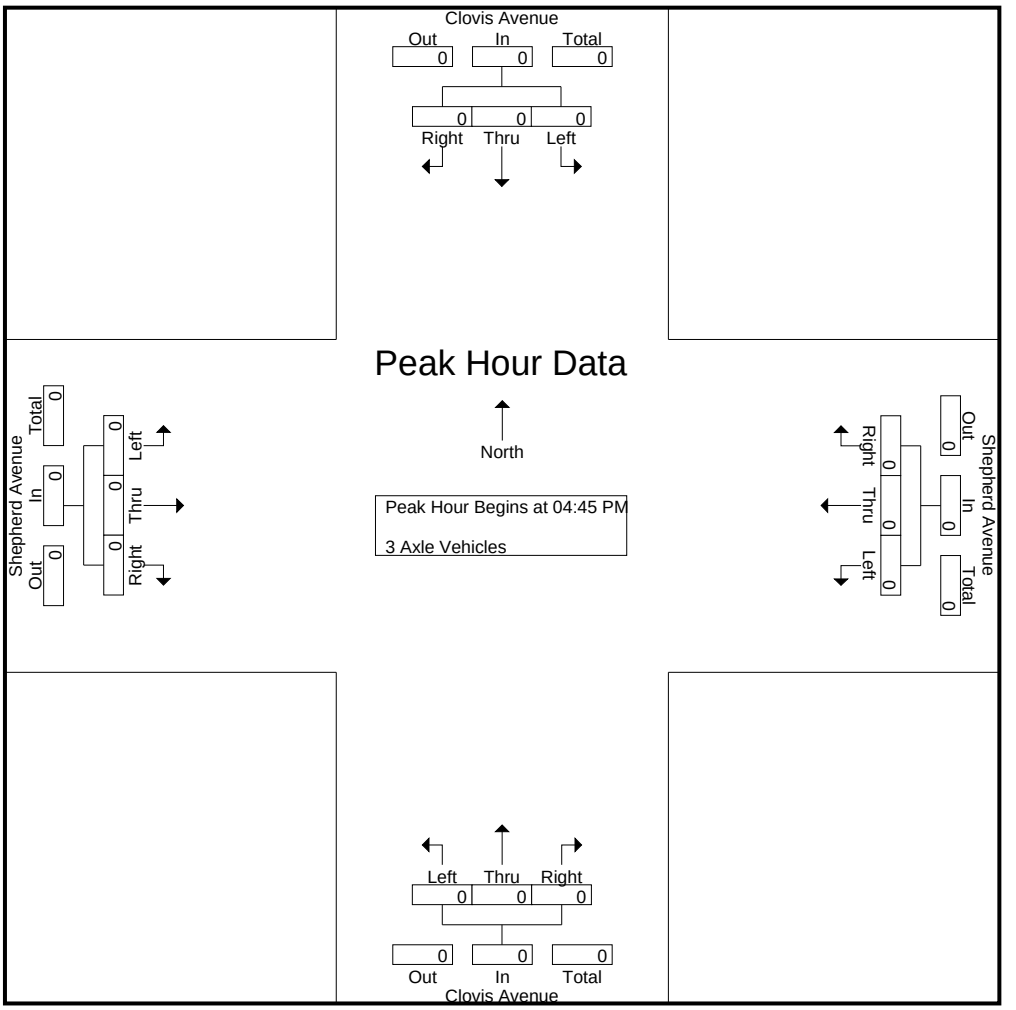
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

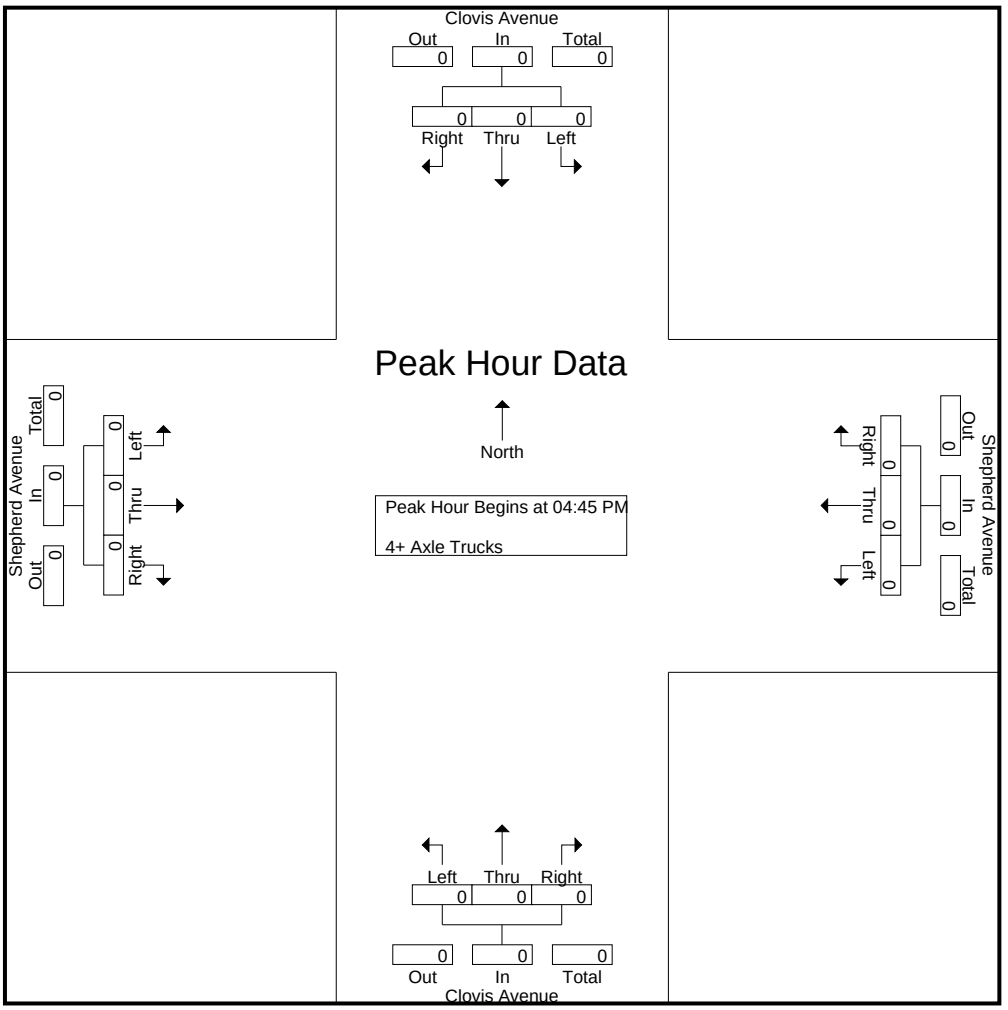
	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Clovis Avenue Southbound				Shepherd Avenue Westbound				Clovis Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 08_CVS_Clo_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Clovis Avenue	East Leg Shepherd Avenue	South Leg Clovis Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	1	0	0	0	1
7:45 AM	0	0	0	1	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	2	0	1	0	3
8:45 AM	3	0	0	0	3
TOTAL VOLUMES:	6	0	2	1	9

	North Leg Clovis Avenue	East Leg Shepherd Avenue	South Leg Clovis Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	3	0	3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Clovis Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Clovis Avenue			Westbound Shepherd Avenue			Northbound Clovis Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	3	0	0	0	0	0	4	0	7

	Southbound Clovis Avenue			Westbound Shepherd Avenue			Northbound Clovis Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

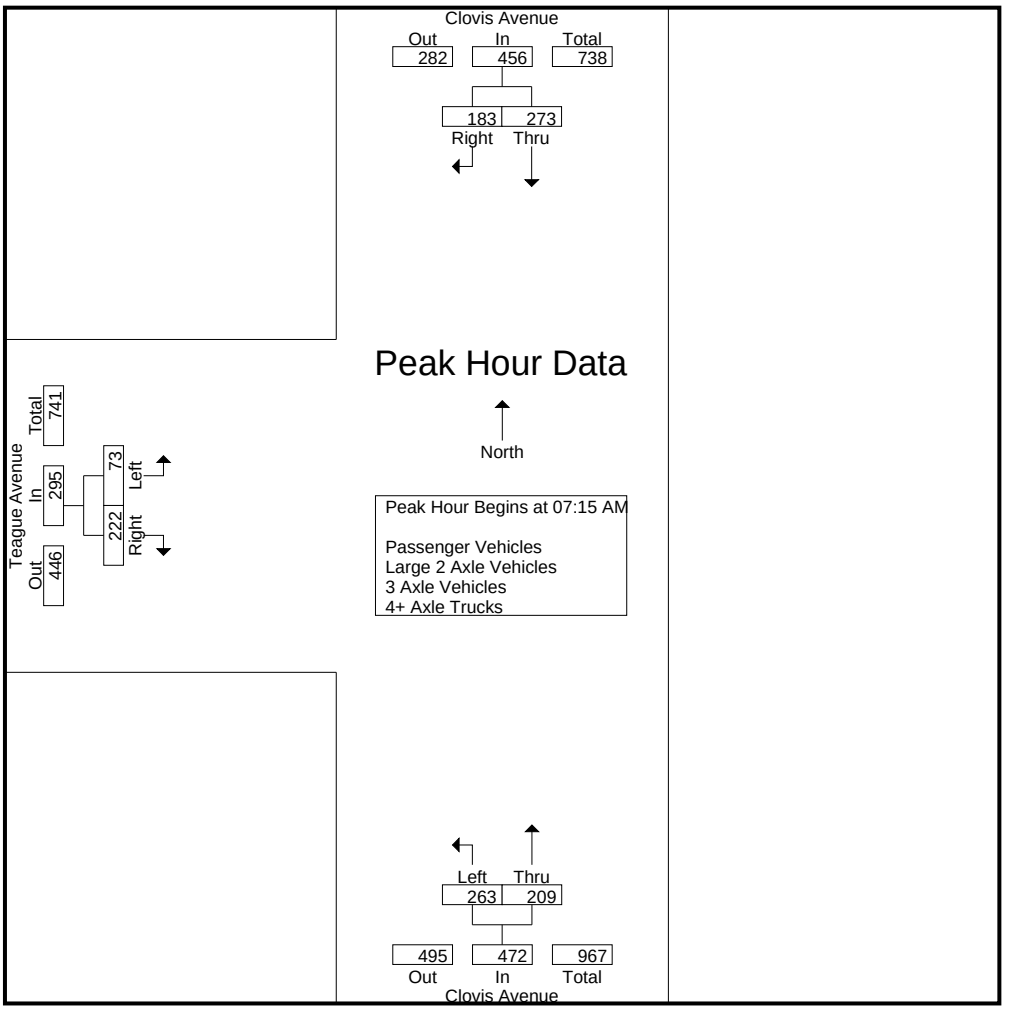
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	44	17	61	22	37	59	3	24	27	147
07:15 AM	51	53	104	79	55	134	15	33	48	286
07:30 AM	75	70	145	110	53	163	19	76	95	403
07:45 AM	78	29	107	43	54	97	22	70	92	296
Total	248	169	417	254	199	453	59	203	262	1132
08:00 AM	69	31	100	31	47	78	17	43	60	238
08:15 AM	75	20	95	19	52	71	24	53	77	243
08:30 AM	48	12	60	17	44	61	7	27	34	155
08:45 AM	57	10	67	12	34	46	5	16	21	134
Total	249	73	322	79	177	256	53	139	192	770
Grand Total	497	242	739	333	376	709	112	342	454	1902
Apprch %	67.3	32.7		47	53		24.7	75.3		
Total %	26.1	12.7	38.9	17.5	19.8	37.3	5.9	18	23.9	
Passenger Vehicles	486	237	723	333	360	693	110	339	449	1865
% Passenger Vehicles	97.8	97.9	97.8	100	95.7	97.7	98.2	99.1	98.9	98.1
Large 2 Axle Vehicles	4	1	5	0	11	11	2	1	3	19
% Large 2 Axle Vehicles	0.8	0.4	0.7	0	2.9	1.6	1.8	0.3	0.7	1
3 Axle Vehicles	4	2	6	0	2	2	0	2	2	10
% 3 Axle Vehicles	0.8	0.8	0.8	0	0.5	0.3	0	0.6	0.4	0.5
4+ Axle Trucks	3	2	5	0	3	3	0	0	0	8
% 4+ Axle Trucks	0.6	0.8	0.7	0	0.8	0.4	0	0	0	0.4

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	51	53	104	79	**55**	134	15	33	48	286
07:30 AM	75	**70**	**145**	**110**	53	**163**	19	**76**	**95**	**403**
07:45 AM	**78**	29	107	43	54	97	**22**	70	92	296
08:00 AM	69	31	100	31	47	78	17	43	60	238
Total Volume	273	183	456	263	209	472	73	222	295	1223
% App. Total	59.9	40.1		55.7	44.3		24.7	75.3		
PHF	.875	.654	.786	.598	.950	.724	.830	.730	.776	.759

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:30 AM		
+0 mins.	51	53	104	79	**55**	134	19	**76**	**95**
+15 mins.	75	**70**	**145**	**110**	53	**163**	22	70	92
+30 mins.	**78**	29	107	43	54	97	17	43	60
+45 mins.	69	31	100	31	47	78	**24**	53	77
Total Volume	273	183	456	263	209	472	82	242	324
% App. Total	59.9	40.1		55.7	44.3		25.3	74.7	
PHF	.875	.654	.786	.598	.950	.724	.854	.796	.853

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

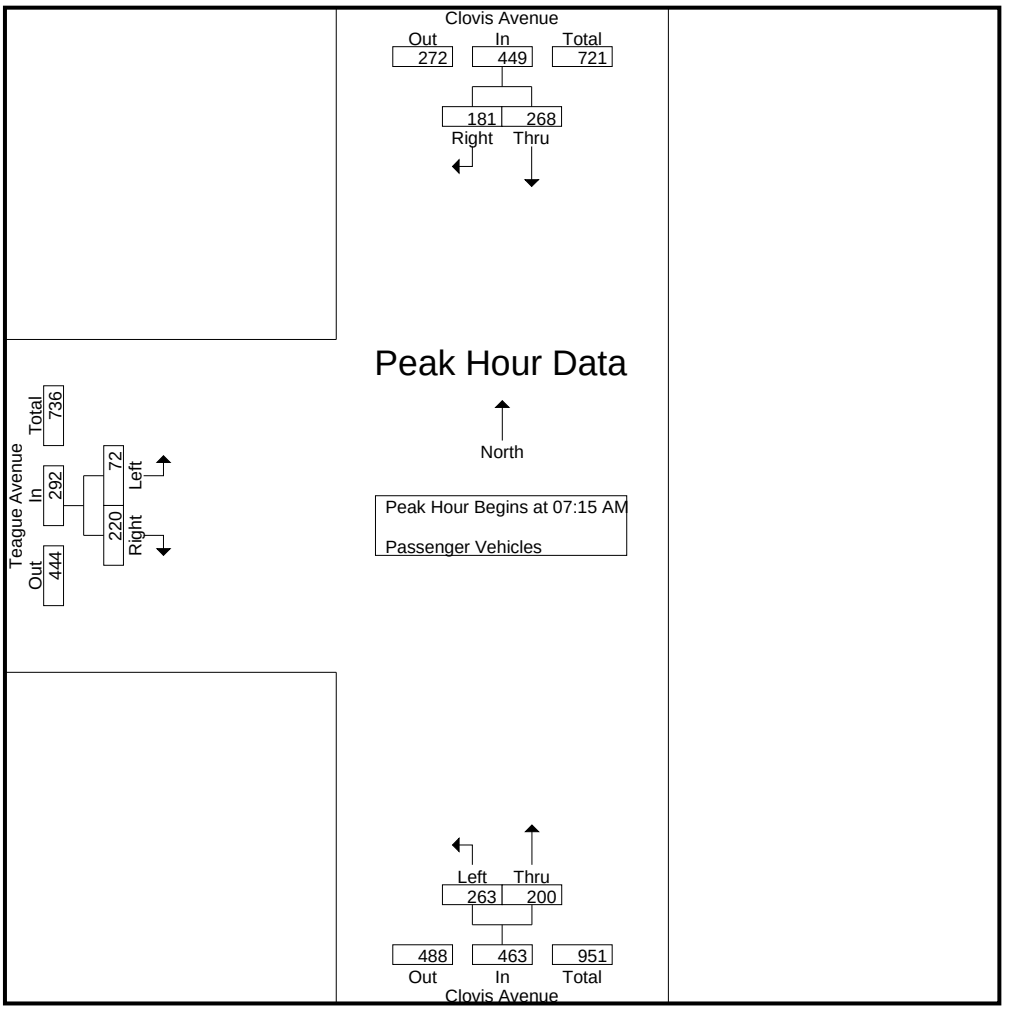
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	43	16	59	22	35	57	2	24	26	142
07:15 AM	50	53	103	79	54	133	14	32	46	282
07:30 AM	74	70	144	110	50	160	19	76	95	399
07:45 AM	76	29	105	43	50	93	22	69	91	289
Total	243	168	411	254	189	443	57	201	258	1112
08:00 AM	68	29	97	31	46	77	17	43	60	234
08:15 AM	74	19	93	19	49	68	24	52	76	237
08:30 AM	46	11	57	17	43	60	7	27	34	151
08:45 AM	55	10	65	12	33	45	5	16	21	131
Total	243	69	312	79	171	250	53	138	191	753
Grand Total	486	237	723	333	360	693	110	339	449	1865
Apprch %	67.2	32.8		48.1	51.9		24.5	75.5		
Total %	26.1	12.7	38.8	17.9	19.3	37.2	5.9	18.2	24.1	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	50	53	103	79	**54**	133	14	32	46	282
07:30 AM	74	**70**	**144**	**110**	50	**160**	19	**76**	**95**	**399**
07:45 AM	**76**	29	105	43	50	93	**22**	69	91	289
08:00 AM	68	29	97	31	46	77	17	43	60	234
Total Volume	268	181	449	263	200	463	72	220	292	1204
% App. Total	59.7	40.3		56.8	43.2		24.7	75.3		
PHF	.882	.646	.780	.598	.926	.723	.818	.724	.768	.754

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	50	53	103	79	**54**	133	14	32	46
+15 mins.	74	**70**	**144**	**110**	50	**160**	19	**76**	**95**
+30 mins.	**76**	29	105	43	50	93	**22**	69	91
+45 mins.	68	29	97	31	46	77	17	43	60
Total Volume	268	181	449	263	200	463	72	220	292
% App. Total	59.7	40.3		56.8	43.2		24.7	75.3	
PHF	.882	.646	.780	.598	.926	.723	.818	.724	.768

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

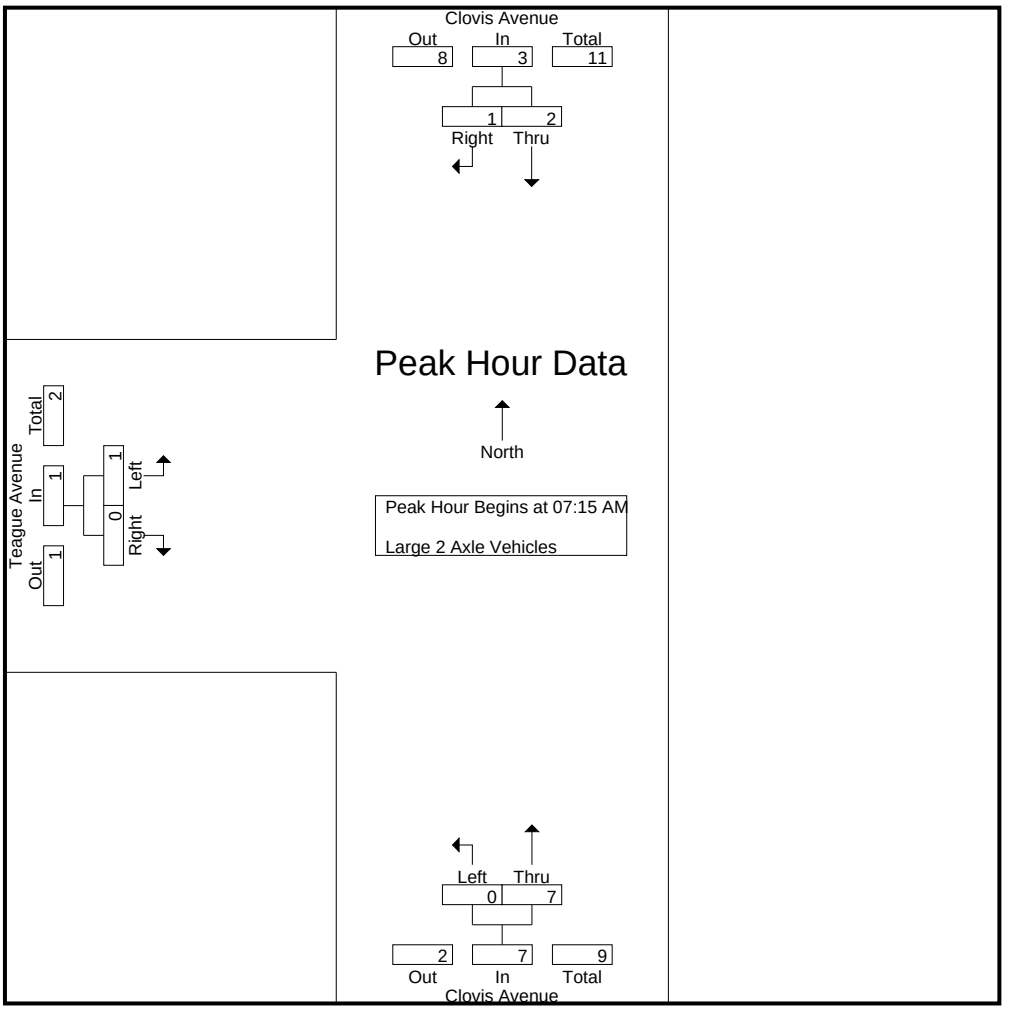
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	1	0	1	0	1	1	1	0	1	3
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	0	0	0	0	2	2	0	0	0	2
07:45 AM	1	0	1	0	4	4	0	0	0	5
Total	2	0	2	0	8	8	2	0	2	12
08:00 AM	1	1	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	1	1	0	1	1	2
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	1	0	1	0	1	1	0	0	0	2
Total	2	1	3	0	3	3	0	1	1	7
Grand Total	4	1	5	0	11	11	2	1	3	19
Apprch %	80	20		0	100		66.7	33.3		
Total %	21.1	5.3	26.3	0	57.9	57.9	10.5	5.3	15.8	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	1	1	**1**	0	**1**	2
07:30 AM	0	0	0	0	2	2	0	0	0	2
07:45 AM	**1**	0	1	0	**4**	**4**	0	0	0	**5**
08:00 AM	1	**1**	**2**	0	0	0	0	0	0	2
Total Volume	2	1	3	0	7	7	1	0	1	11
% App. Total	66.7	33.3		0	100		100	0		
PHF	.500	.250	.375	.000	.438	.438	.250	.000	.250	.550

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	0	1	1	**1**	0	**1**
+15 mins.	0	0	0	0	2	2	0	0	0
+30 mins.	**1**	0	1	0	**4**	**4**	0	0	0
+45 mins.	1	**1**	**2**	0	0	0	0	0	0
Total Volume	2	1	3	0	7	7	1	0	1
% App. Total	66.7	33.3		0	100		100	0	
PHF	.500	.250	.375	.000	.438	.438	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

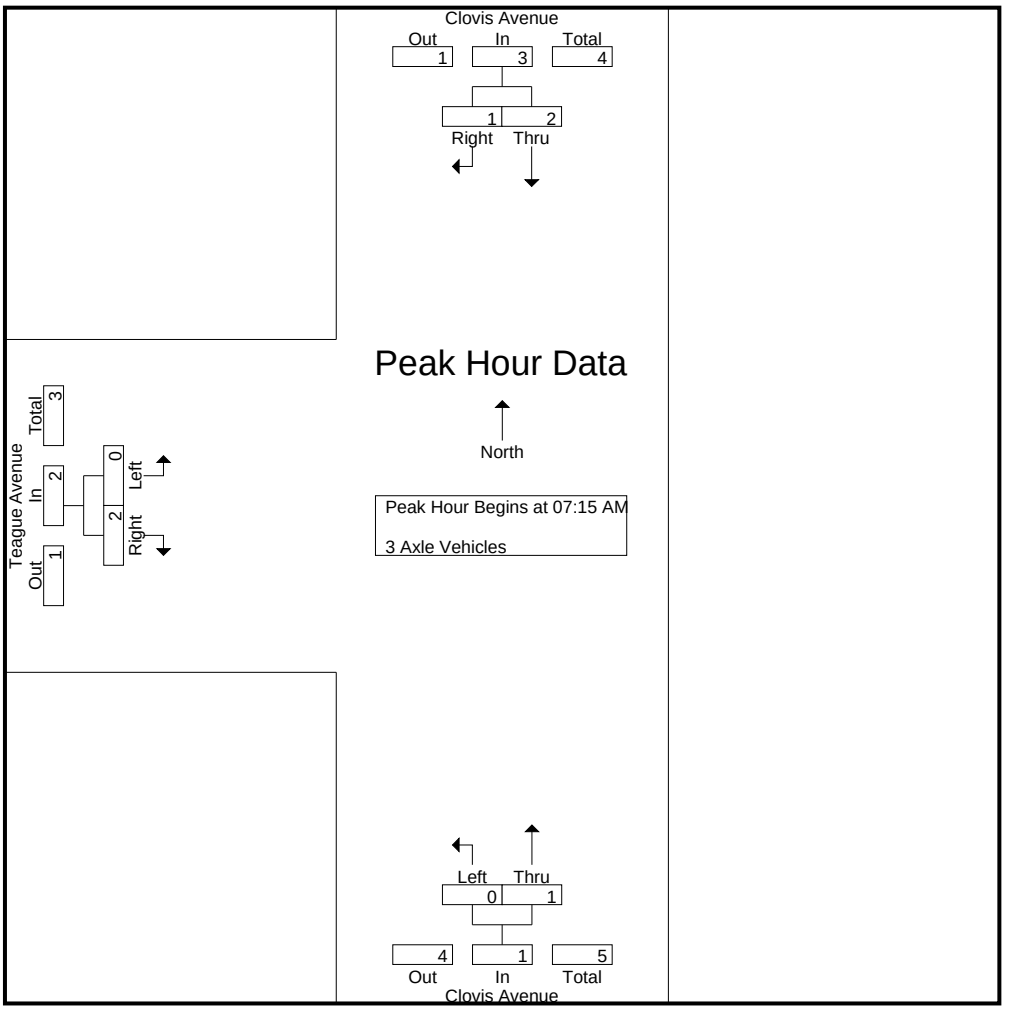
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	1	0	1	0	0	0	0	1	1	2
Total	2	0	2	0	0	0	0	2	2	4
08:00 AM	0	1	1	0	1	1	0	0	0	2
08:15 AM	0	0	0	0	1	1	0	0	0	1
08:30 AM	2	1	3	0	0	0	0	0	0	3
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	2	2	4	0	2	2	0	0	0	6
Grand Total	4	2	6	0	2	2	0	2	2	10
Apprch %	66.7	33.3		0	100		0	100		
Total %	40	20	60	0	20	20	0	20	20	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	**1**	**1**	1
07:30 AM	**1**	0	**1**	0	0	0	0	0	0	1
07:45 AM	1	0	1	0	0	0	0	1	1	**2**
08:00 AM	0	**1**	1	0	**1**	**1**	0	0	0	2
Total Volume	2	1	3	0	1	1	0	2	2	6
% App. Total	66.7	33.3		0	100		0	100		
PHF	.500	.250	.750	.000	.250	.250	.000	.500	.500	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	**1**	**1**
+15 mins.	**1**	0	**1**	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	1	1
+45 mins.	0	**1**	1	0	**1**	**1**	0	0	0
Total Volume	2	1	3	0	1	1	0	2	2
% App. Total	66.7	33.3		0	100		0	100	
PHF	.500	.250	.750	.000	.250	.250	.000	.500	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

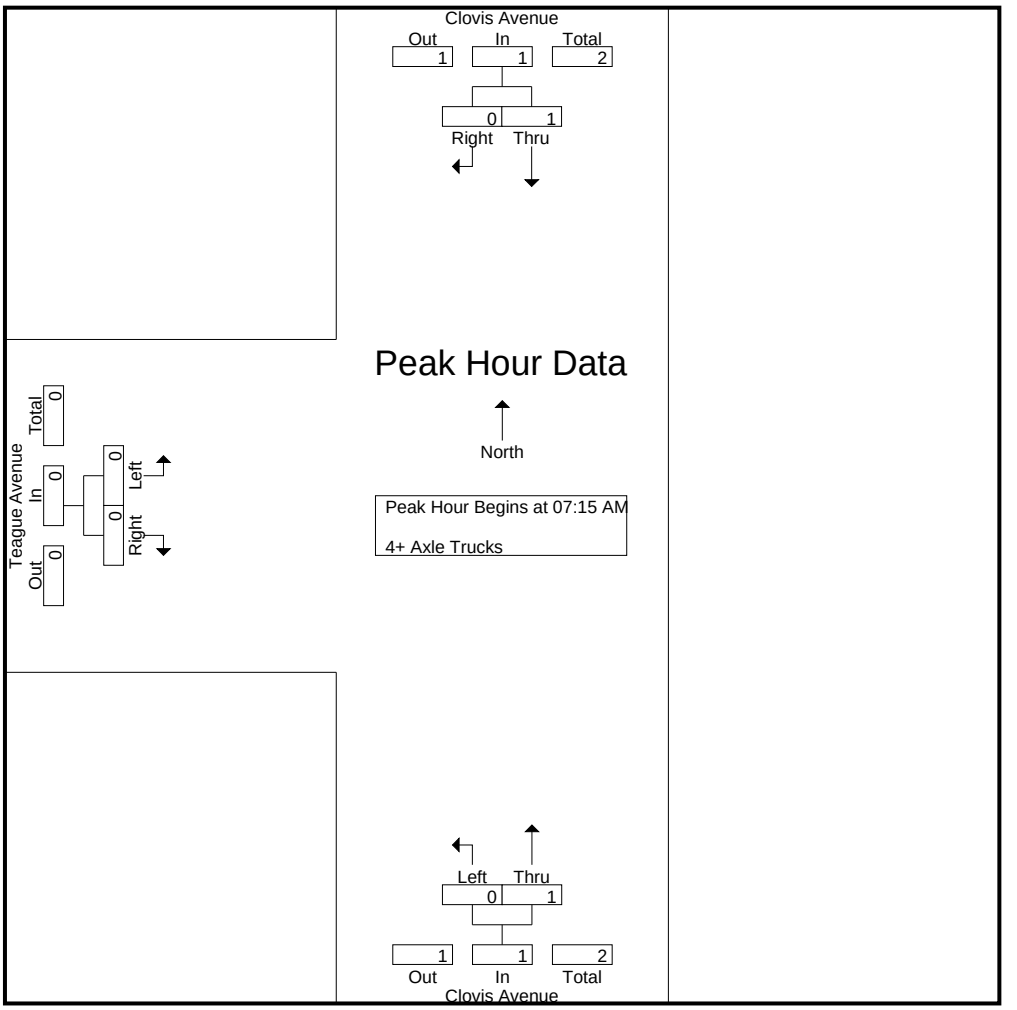
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	1	1	0	0	0	2
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	1	2	0	2	2	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	1	2	0	1	1	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	2	1	3	0	1	1	0	0	0	4
Grand Total	3	2	5	0	3	3	0	0	0	8
Apprch %	60	40		0	100		0	0		
Total %	37.5	25	62.5	0	37.5	37.5	0	0	0	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	**1**	0	**1**	0	0	0	0	0	0	**1**
07:30 AM	0	0	0	0	**1**	**1**	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0	2
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	**1**	0	**1**	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	**1**	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

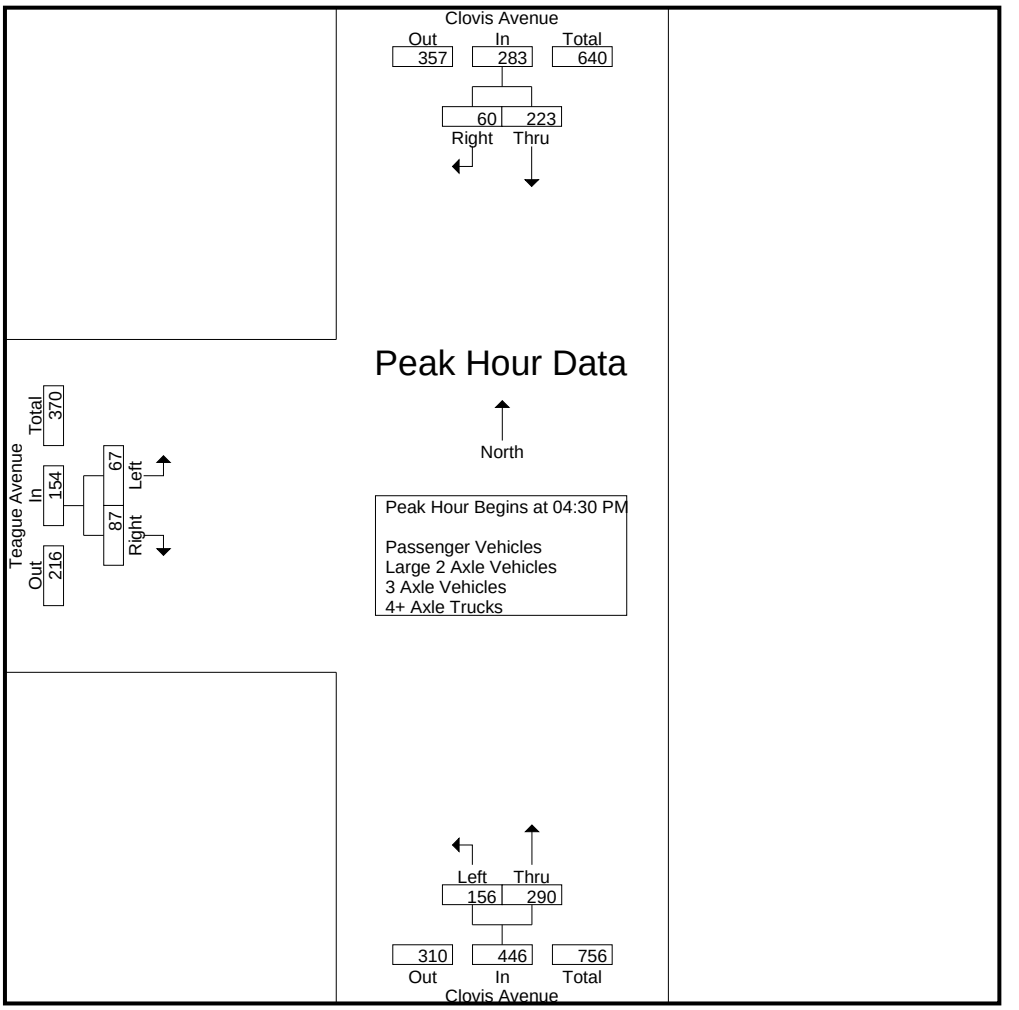
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	56	7	63	38	71	109	17	19	36	208
04:15 PM	52	7	59	19	68	87	13	21	34	180
04:30 PM	48	14	62	37	71	108	10	12	22	192
04:45 PM	54	16	70	29	73	102	14	22	36	208
Total	210	44	254	123	283	406	54	74	128	788
05:00 PM	78	15	93	54	72	126	23	31	54	273
05:15 PM	43	15	58	36	74	110	20	22	42	210
05:30 PM	45	7	52	28	67	95	14	25	39	186
05:45 PM	34	8	42	25	68	93	15	25	40	175
Total	200	45	245	143	281	424	72	103	175	844
Grand Total	410	89	499	266	564	830	126	177	303	1632
Apprch %	82.2	17.8		32	68		41.6	58.4		
Total %	25.1	5.5	30.6	16.3	34.6	50.9	7.7	10.8	18.6	
Passenger Vehicles	408	89	497	261	563	824	125	175	300	1621
% Passenger Vehicles	99.5	100	99.6	98.1	99.8	99.3	99.2	98.9	99	99.3
Large 2 Axle Vehicles	2	0	2	3	1	4	1	1	2	8
% Large 2 Axle Vehicles	0.5	0	0.4	1.1	0.2	0.5	0.8	0.6	0.7	0.5
3 Axle Vehicles	0	0	0	2	0	2	0	1	1	3
% 3 Axle Vehicles	0	0	0	0.8	0	0.2	0	0.6	0.3	0.2
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	48	14	62	37	71	108	10	12	22	192
04:45 PM	54	**16**	70	29	73	102	14	22	36	208
05:00 PM	**78**	15	**93**	**54**	72	**126**	**23**	**31**	**54**	**273**
05:15 PM	43	15	58	36	**74**	110	20	22	42	210
Total Volume	223	60	283	156	290	446	67	87	154	883
% App. Total	78.8	21.2		35	65		43.5	56.5		
PHF	.715	.938	.761	.722	.980	.885	.728	.702	.713	.809

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:30 PM			05:00 PM		
+0 mins.	52	7	59	37	71	108	**23**	**31**	**54**
+15 mins.	48	14	62	29	73	102	20	22	42
+30 mins.	54	**16**	70	**54**	72	**126**	14	25	39
+45 mins.	**78**	15	**93**	36	**74**	110	15	25	40
Total Volume	232	52	284	156	290	446	72	103	175
% App. Total	81.7	18.3		35	65		41.1	58.9	
PHF	.744	.813	.763	.722	.980	.885	.783	.831	.810

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

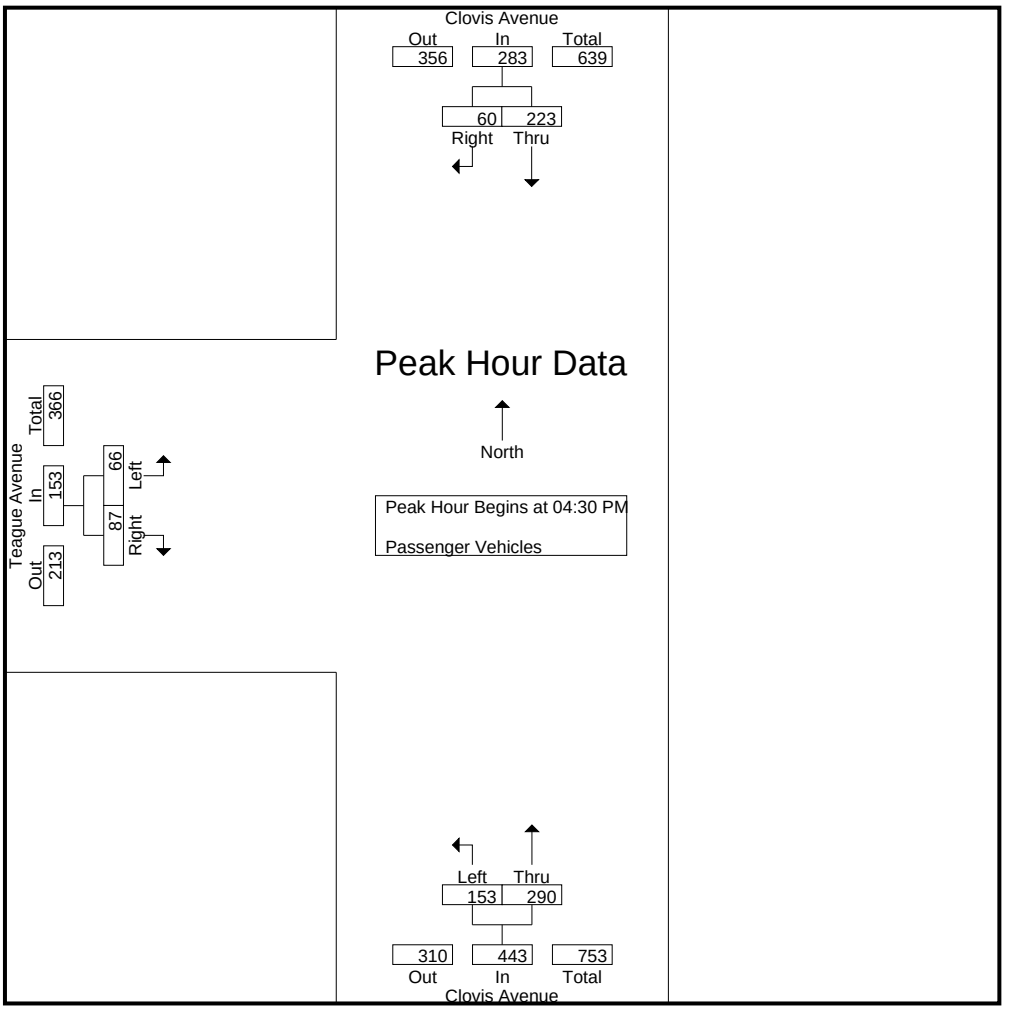
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	55	7	62	36	71	107	17	17	34	203
04:15 PM	51	7	58	19	67	86	13	21	34	178
04:30 PM	48	14	62	37	71	108	10	12	22	192
04:45 PM	54	16	70	28	73	101	14	22	36	207
Total	208	44	252	120	282	402	54	72	126	780
05:00 PM	78	15	93	53	72	125	23	31	54	272
05:15 PM	43	15	58	35	74	109	19	22	41	208
05:30 PM	45	7	52	28	67	95	14	25	39	186
05:45 PM	34	8	42	25	68	93	15	25	40	175
Total	200	45	245	141	281	422	71	103	174	841
Grand Total	408	89	497	261	563	824	125	175	300	1621
Apprch %	82.1	17.9		31.7	68.3		41.7	58.3		
Total %	25.2	5.5	30.7	16.1	34.7	50.8	7.7	10.8	18.5	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	48	14	62	37	71	108	10	12	22	192
04:45 PM	54	**16**	70	28	73	101	14	22	36	207
05:00 PM	**78**	15	**93**	**53**	72	**125**	**23**	**31**	**54**	**272**
05:15 PM	43	15	58	35	**74**	109	19	22	41	208
Total Volume	223	60	283	153	290	443	66	87	153	879
% App. Total	78.8	21.2		34.5	65.5		43.1	56.9		
PHF	.715	.938	.761	.722	.980	.886	.717	.702	.708	.808

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	48	14	62	37	71	108	10	12	22
+15 mins.	54	**16**	70	28	73	101	14	22	36
+30 mins.	**78**	15	**93**	**53**	72	**125**	**23**	**31**	**54**
+45 mins.	43	15	58	35	**74**	109	19	22	41
Total Volume	223	60	283	153	290	443	66	87	153
% App. Total	78.8	21.2		34.5	65.5		43.1	56.9	
PHF	.715	.938	.761	.722	.980	.886	.717	.702	.708

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

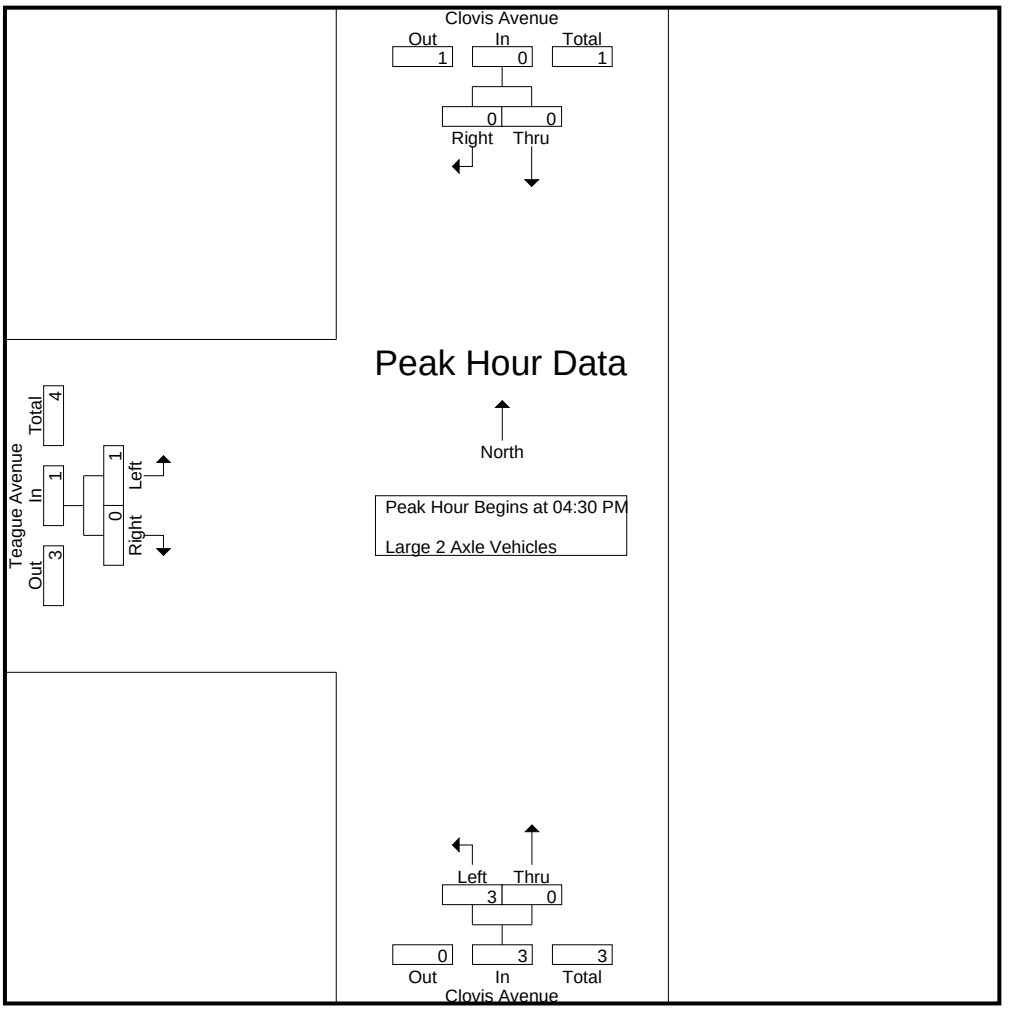
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	1	1	2
04:15 PM	1	0	1	0	1	1	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total	2	0	2	1	1	2	0	1	1	5
05:00 PM	0	0	0	1	0	1	0	0	0	1
05:15 PM	0	0	0	1	0	1	1	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	1	0	1	3
Grand Total	2	0	2	3	1	4	1	1	2	8
Apprch %	100	0		75	25		50	50		
Total %	25	0	25	37.5	12.5	50	12.5	12.5	25	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	**1**	0	**1**	0	0	0	1
05:00 PM	0	0	0	1	0	1	0	0	0	1
05:15 PM	0	0	0	1	0	1	**1**	0	**1**	**2**
Total Volume	0	0	0	3	0	3	1	0	1	4
% App. Total	0	0		100	0		100	0		
PHF	.000	.000	.000	.750	.000	.750	.250	.000	.250	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	**1**	0	**1**	0	0	0
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	1	0	1	**1**	0	**1**
Total Volume	0	0	0	3	0	3	1	0	1
% App. Total	0	0		100	0		100	0	
PHF	.000	.000	.000	.750	.000	.750	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

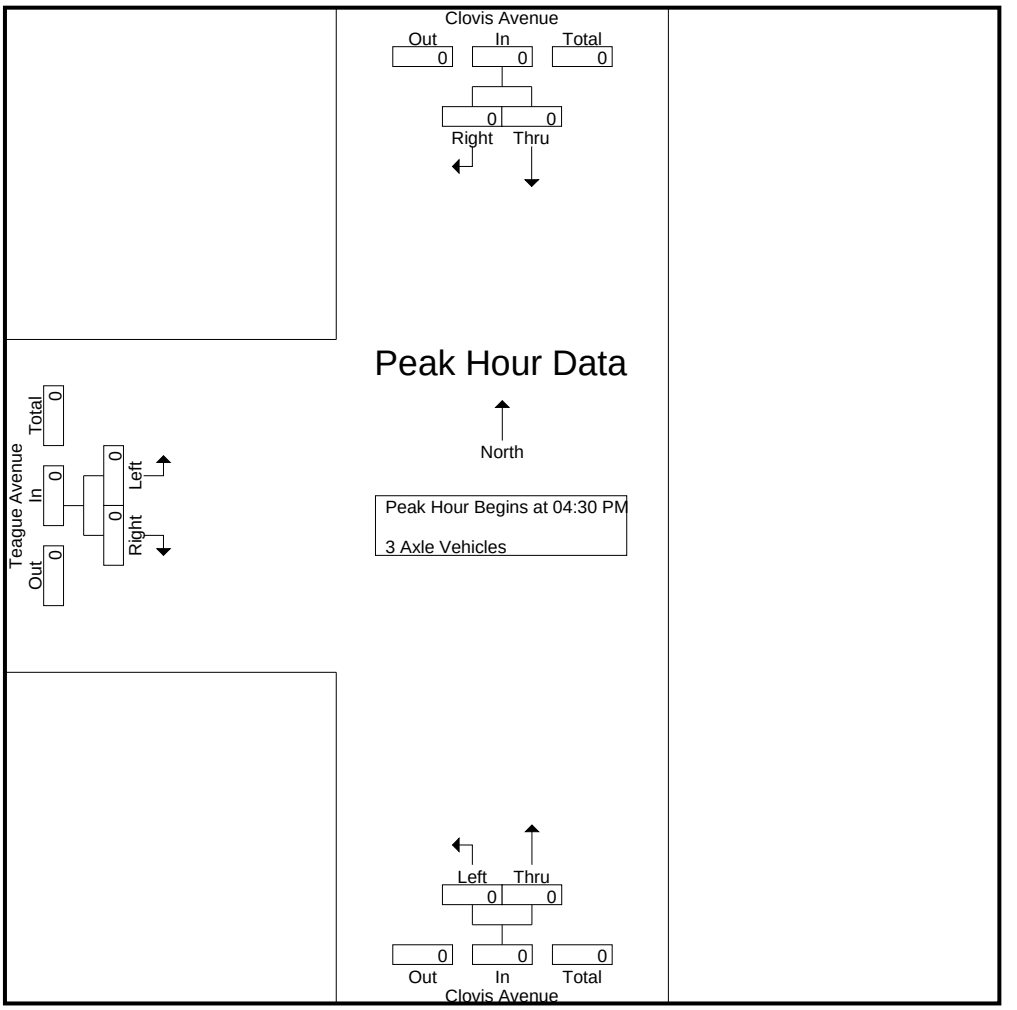
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	2	0	2	0	1	1	3
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	1	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	2	0	2	0	1	1	3
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	66.7	0	66.7	0	33.3	33.3	

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

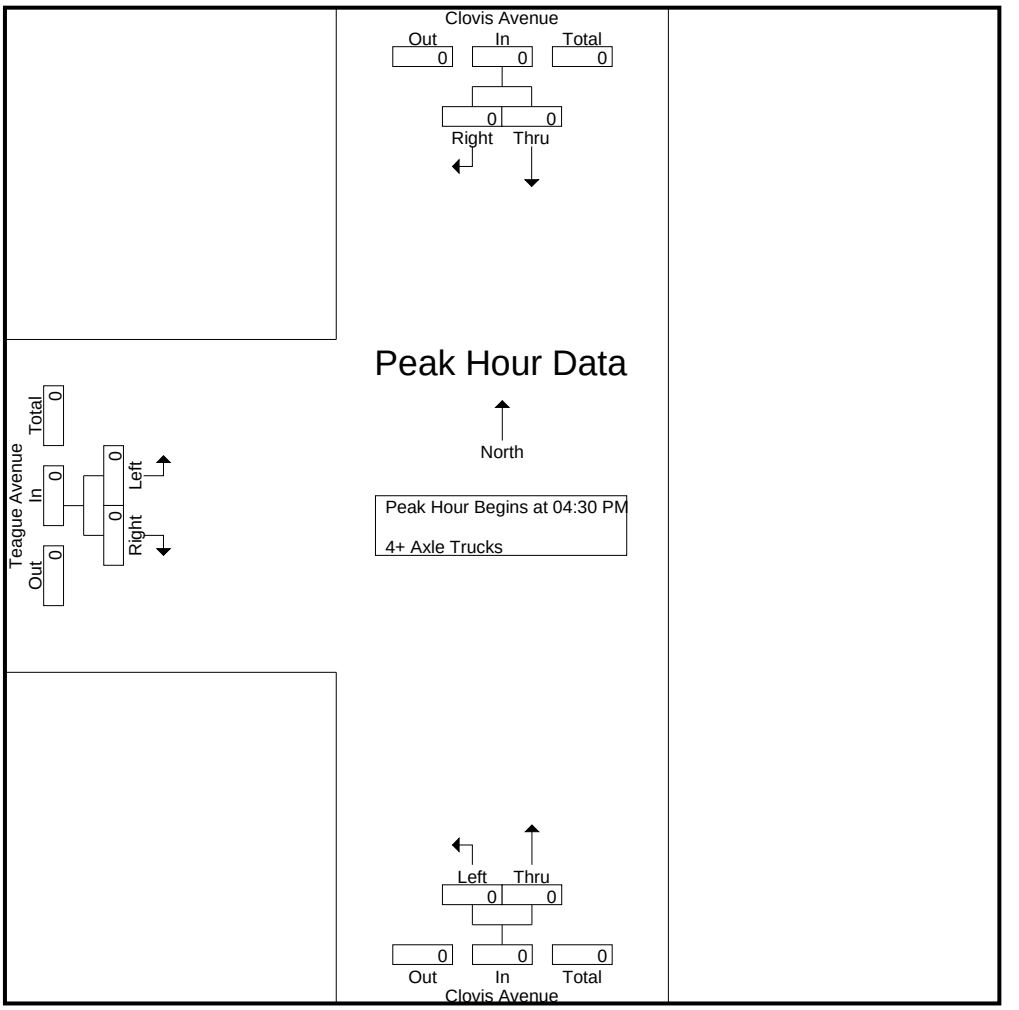
	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Clovis Avenue Southbound			Clovis Avenue Northbound			Teague Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Teague Avenue
Weather: Clear

File Name : 09_CVS_Clo_Teag PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Clovis Avenue
E/W: Teague Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Clovis Avenue	East Leg Teague Avenue	South Leg Clovis Avenue	West Leg Teague Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	1	0	2
7:15 AM	3	0	2	0	5
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	9	30	39
8:15 AM	1	0	14	7	22
8:30 AM	2	0	0	0	2
8:45 AM	2	0	0	0	2
TOTAL VOLUMES:	9	0	26	38	73

	North Leg Clovis Avenue	East Leg Teague Avenue	South Leg Clovis Avenue	West Leg Teague Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1
5:45 PM	2	0	0	0	2
TOTAL VOLUMES:	2	0	0	1	3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Clovis Avenue
E/W: Teague Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Clovis Avenue			Westbound Teague Avenue			Northbound Clovis Avenue			Eastbound Teague Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	2	0	0	0	0	0	0	1	0	0	4
8:00 AM	0	0	2	0	0	0	1	1	0	3	0	0	7
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	10	0	0	0	2	1	0	4	0	0	18

	Southbound Clovis Avenue			Westbound Teague Avenue			Northbound Clovis Avenue			Eastbound Teague Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	1	0	0	2	0	1	4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

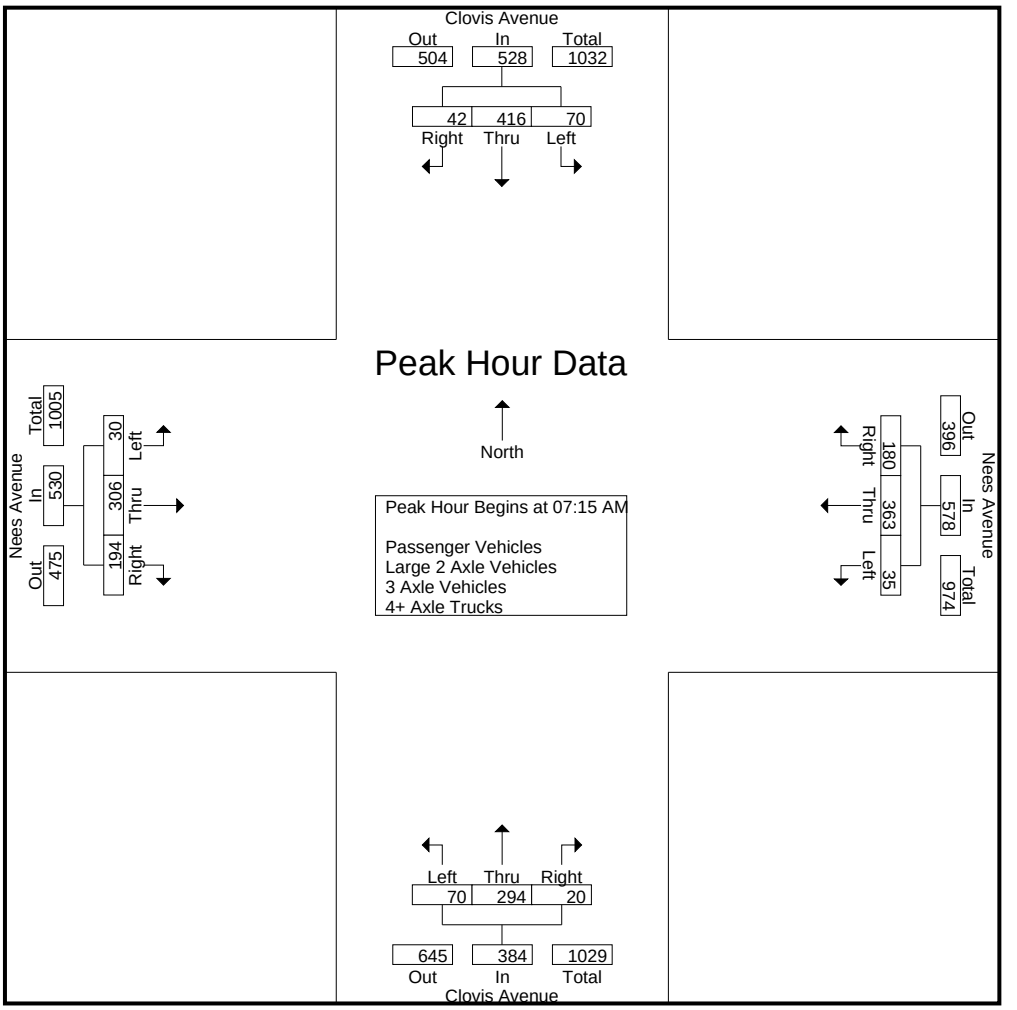
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	76	5	82	6	52	16	74	7	53	5	65	1	42	18	61	282
07:15 AM	8	83	6	97	6	130	47	183	16	80	7	103	4	53	29	86	469
07:30 AM	27	128	6	161	15	88	86	189	16	81	3	100	8	71	54	133	583
07:45 AM	27	115	7	149	7	62	27	96	20	71	3	94	11	111	68	190	529
Total	63	402	24	489	34	332	176	542	59	285	18	362	24	277	169	470	1863
08:00 AM	8	90	23	121	7	83	20	110	18	62	7	87	7	71	43	121	439
08:15 AM	14	98	19	131	10	92	12	114	14	49	2	65	4	34	33	71	381
08:30 AM	8	82	12	102	4	65	9	78	17	46	5	68	4	48	32	84	332
08:45 AM	3	70	2	75	6	71	6	83	11	39	3	53	6	41	35	82	293
Total	33	340	56	429	27	311	47	385	60	196	17	273	21	194	143	358	1445
Grand Total	96	742	80	918	61	643	223	927	119	481	35	635	45	471	312	828	3308
Apprch %	10.5	80.8	8.7		6.6	69.4	24.1		18.7	75.7	5.5		5.4	56.9	37.7		
Total %	2.9	22.4	2.4	27.8	1.8	19.4	6.7	28	3.6	14.5	1.1	19.2	1.4	14.2	9.4	25	
Passenger Vehicles	94	732	78	904	61	635	223	919	117	466	34	617	44	464	305	813	3253
% Passenger Vehicles	97.9	98.7	97.5	98.5	100	98.8	100	99.1	98.3	96.9	97.1	97.2	97.8	98.5	97.8	98.2	98.3
Large 2 Axle Vehicles	2	5	1	8	0	7	0	7	1	13	1	15	1	6	7	14	44
% Large 2 Axle Vehicles	2.1	0.7	1.2	0.9	0	1.1	0	0.8	0.8	2.7	2.9	2.4	2.2	1.3	2.2	1.7	1.3
3 Axle Vehicles	0	2	1	3	0	1	0	1	1	0	0	1	0	1	0	1	6
% 3 Axle Vehicles	0	0.3	1.2	0.3	0	0.2	0	0.1	0.8	0	0	0.2	0	0.2	0	0.1	0.2
4+ Axle Trucks	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
% 4+ Axle Trucks	0	0.4	0	0.3	0	0	0	0	0	0.4	0	0.3	0	0	0	0	0.2

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	8	83	6	97	6	**130**	47	183	16	80	**7**	**103**	4	53	29	86	469
07:30 AM	**27**	**128**	6	**161**	**15**	88	**86**	**189**	16	**81**	3	100	8	71	54	133	**583**
07:45 AM	27	115	7	149	7	62	27	96	**20**	71	3	94	**11**	**111**	**68**	**190**	529
08:00 AM	8	90	**23**	121	7	83	20	110	18	62	7	87	7	71	43	121	439
Total Volume	70	416	42	528	35	363	180	578	70	294	20	384	30	306	194	530	2020
% App. Total	13.3	78.8	8		6.1	62.8	31.1		18.2	76.6	5.2		5.7	57.7	36.6		
PHF	.648	.813	.457	.820	.583	.698	.523	.765	.875	.907	.714	.932	.682	.689	.713	.697	.866

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	**27**	**128**	6	**161**	6	**130**	47	183	16	80	**7**	**103**	4	53	29	86
+15 mins.	27	115	7	149	**15**	88	**86**	**189**	16	**81**	3	100	8	71	54	133
+30 mins.	8	90	**23**	121	7	62	27	96	**20**	71	3	94	**11**	**111**	**68**	**190**
+45 mins.	14	98	19	131	7	83	20	110	18	62	7	87	7	71	43	121
Total Volume	76	431	55	562	35	363	180	578	70	294	20	384	30	306	194	530
% App. Total	13.5	76.7	9.8		6.1	62.8	31.1		18.2	76.6	5.2		5.7	57.7	36.6	
PHF	.704	.842	.598	.873	.583	.698	.523	.765	.875	.907	.714	.932	.682	.689	.713	.697

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

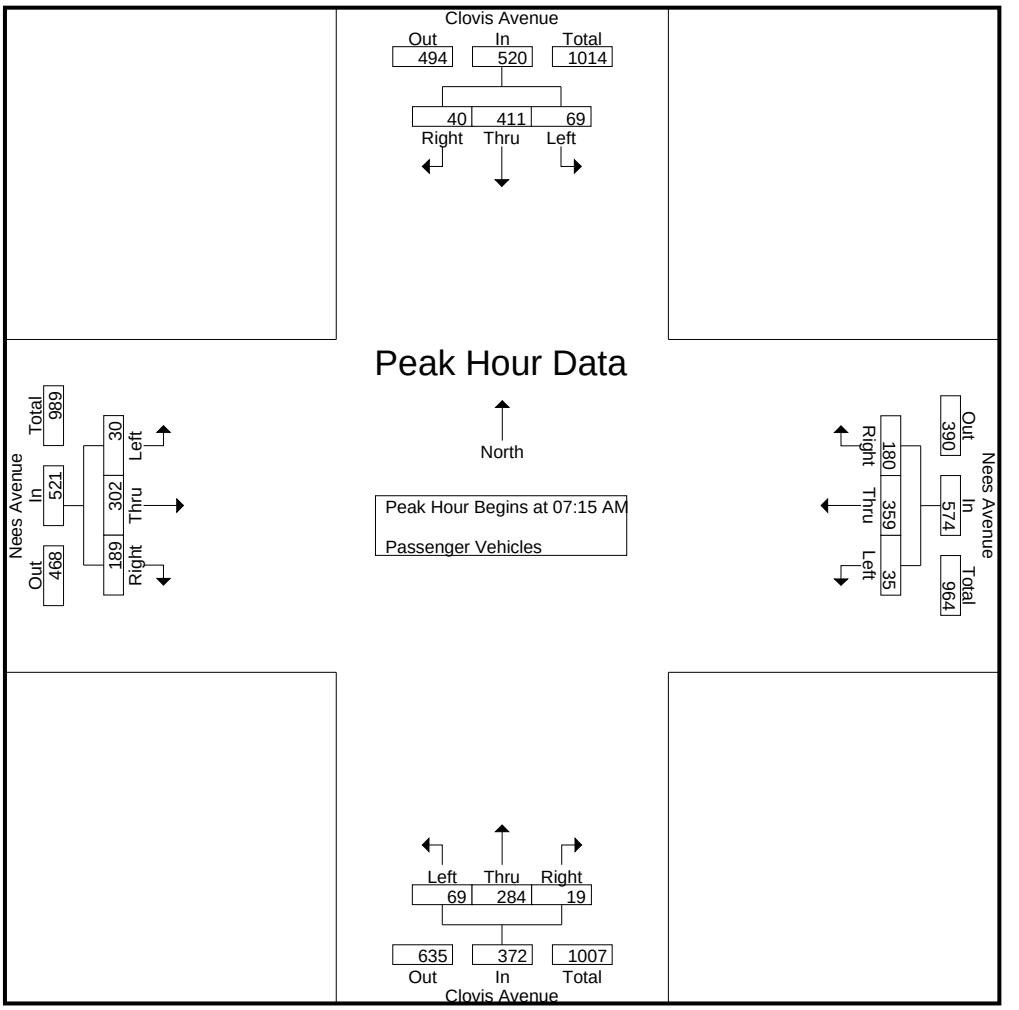
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	75	5	81	6	52	16	74	7	52	5	64	1	41	18	60	279
07:15 AM	8	82	5	95	6	127	47	180	16	77	7	100	4	51	27	82	457
07:30 AM	27	127	6	160	15	88	86	189	15	79	3	97	8	70	53	131	577
07:45 AM	27	114	7	148	7	61	27	95	20	67	3	90	11	111	67	189	522
Total	63	398	23	484	34	328	176	538	58	275	18	351	24	273	165	462	1835
08:00 AM	7	88	22	117	7	83	20	110	18	61	6	85	7	70	42	119	431
08:15 AM	14	98	19	131	10	92	12	114	13	46	2	61	4	33	32	69	375
08:30 AM	8	81	12	101	4	63	9	76	17	45	5	67	4	48	32	84	328
08:45 AM	2	67	2	71	6	69	6	81	11	39	3	53	5	40	34	79	284
Total	31	334	55	420	27	307	47	381	59	191	16	266	20	191	140	351	1418
Grand Total	94	732	78	904	61	635	223	919	117	466	34	617	44	464	305	813	3253
Apprch %	10.4	81	8.6		6.6	69.1	24.3		19	75.5	5.5		5.4	57.1	37.5		
Total %	2.9	22.5	2.4	27.8	1.9	19.5	6.9	28.3	3.6	14.3	1	19	1.4	14.3	9.4	25	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	8	82	5	95	6	**127**	47	180	16	77	**7**	**100**	4	51	27	82	457
07:30 AM	**27**	**127**	6	**160**	**15**	88	**86**	**189**	15	**79**	3	97	8	70	53	131	**577**
07:45 AM	27	114	7	148	7	61	27	95	**20**	67	3	90	**11**	**111**	**67**	**189**	522
08:00 AM	7	88	**22**	117	7	83	20	110	18	61	6	85	7	70	42	119	431
Total Volume	69	411	40	520	35	359	180	574	69	284	19	372	30	302	189	521	1987
% App. Total	13.3	79	7.7		6.1	62.5	31.4		18.5	76.3	5.1		5.8	58	36.3		
PHF	.639	.809	.455	.813	.583	.707	.523	.759	.863	.899	.679	.930	.682	.680	.705	.689	.861

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	8	82	5	95	6	**127**	47	180	16	77	**7**	**100**	4	51	27	82
+15 mins.	**27**	**127**	6	**160**	**15**	88	**86**	**189**	15	**79**	3	97	8	70	53	131
+30 mins.	27	114	7	148	7	61	27	95	**20**	67	3	90	**11**	**111**	**67**	**189**
+45 mins.	7	88	**22**	117	7	83	20	110	18	61	6	85	7	70	42	119
Total Volume	69	411	40	520	35	359	180	574	69	284	19	372	30	302	189	521
% App. Total	13.3	79	7.7		6.1	62.5	31.4		18.5	76.3	5.1		5.8	58	36.3	
PHF	.639	.809	.455	.813	.583	.707	.523	.759	.863	.899	.679	.930	.682	.680	.705	.689

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

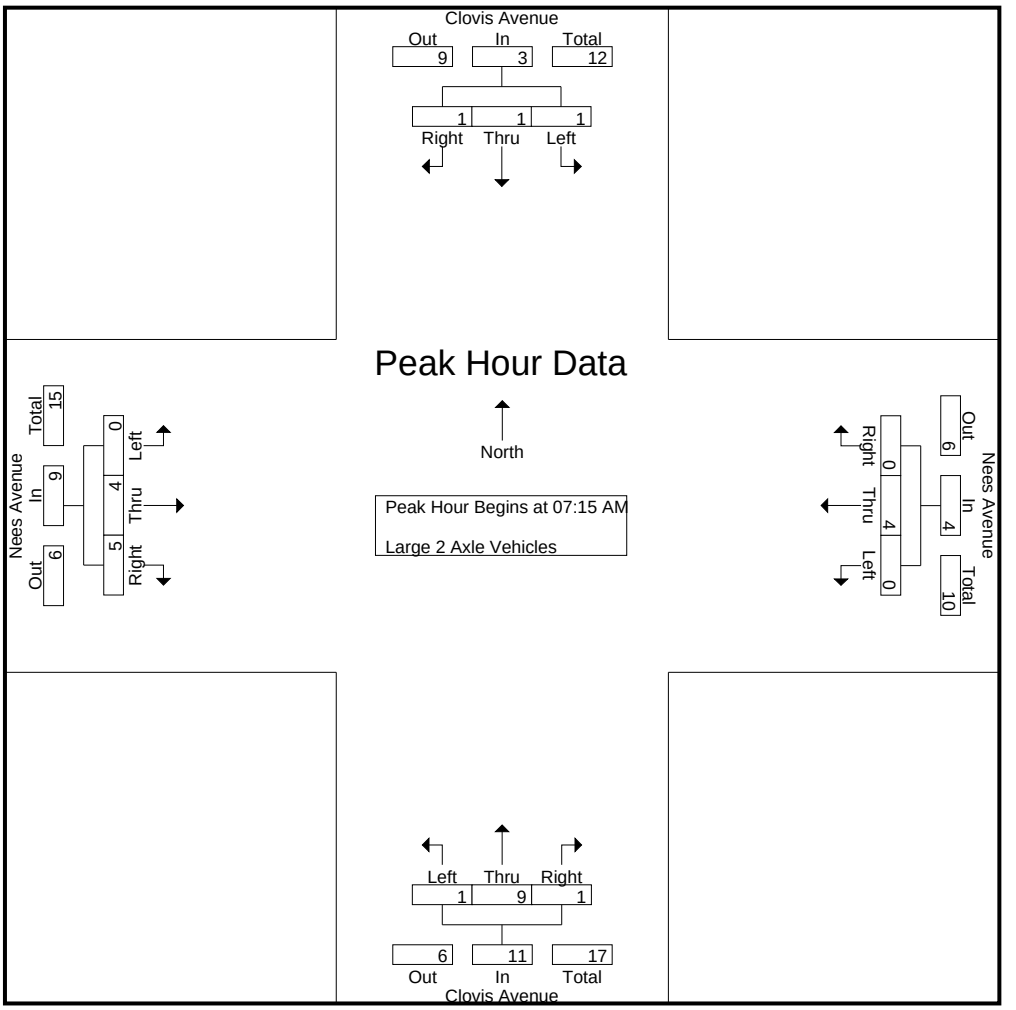
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:15 AM	0	0	0	0	0	3	0	3	0	3	0	3	0	2	2	4	10
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	1	1	2	4
07:45 AM	0	0	0	0	0	1	0	1	0	4	0	4	0	0	1	1	6
Total	0	1	0	1	0	4	0	4	1	9	0	10	0	3	4	7	22
08:00 AM	1	1	1	3	0	0	0	0	0	1	1	2	0	1	1	2	7
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	1	2	4
08:30 AM	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	3
08:45 AM	1	2	0	3	0	2	0	2	0	0	0	0	1	1	1	3	8
Total	2	4	1	7	0	3	0	3	0	4	1	5	1	3	3	7	22
Grand Total	2	5	1	8	0	7	0	7	1	13	1	15	1	6	7	14	44
Apprch %	25	62.5	12.5		0	100	0		6.7	86.7	6.7		7.1	42.9	50		
Total %	4.5	11.4	2.3	18.2	0	15.9	0	15.9	2.3	29.5	2.3	34.1	2.3	13.6	15.9	31.8	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	**3**	0	**3**	0	3	0	3	0	**2**	**2**	**4**	**10**
07:30 AM	0	0	0	0	0	0	0	0	**1**	1	0	2	0	1	1	2	4
07:45 AM	0	0	0	0	0	1	0	1	0	**4**	0	**4**	0	0	1	1	6
08:00 AM	**1**	**1**	**1**	**3**	0	0	0	0	0	1	**1**	2	0	1	1	2	7
Total Volume	1	1	1	3	0	4	0	4	1	9	1	11	0	4	5	9	27
% App. Total	33.3	33.3	33.3		0	100	0		9.1	81.8	9.1		0	44.4	55.6		
PHF	.250	.250	.250	.250	.000	.333	.000	.333	.250	.563	.250	.688	.000	.500	.625	.563	.675

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	**3**	0	**3**	0	3	0	3	0	**2**	**2**	**4**
+15 mins.	0	0	0	0	0	0	0	0	**1**	1	0	2	0	1	1	2
+30 mins.	0	0	0	0	0	1	0	1	0	**4**	0	**4**	0	0	1	1
+45 mins.	**1**	**1**	**1**	**3**	0	0	0	0	0	1	**1**	2	0	1	1	2
Total Volume	1	1	1	3	0	4	0	4	1	9	1	11	0	4	5	9
% App. Total	33.3	33.3	33.3		0	100	0		9.1	81.8	9.1		0	44.4	55.6	
PHF	.250	.250	.250	.250	.000	.333	.000	.333	.250	.563	.250	.688	.000	.500	.625	.563

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

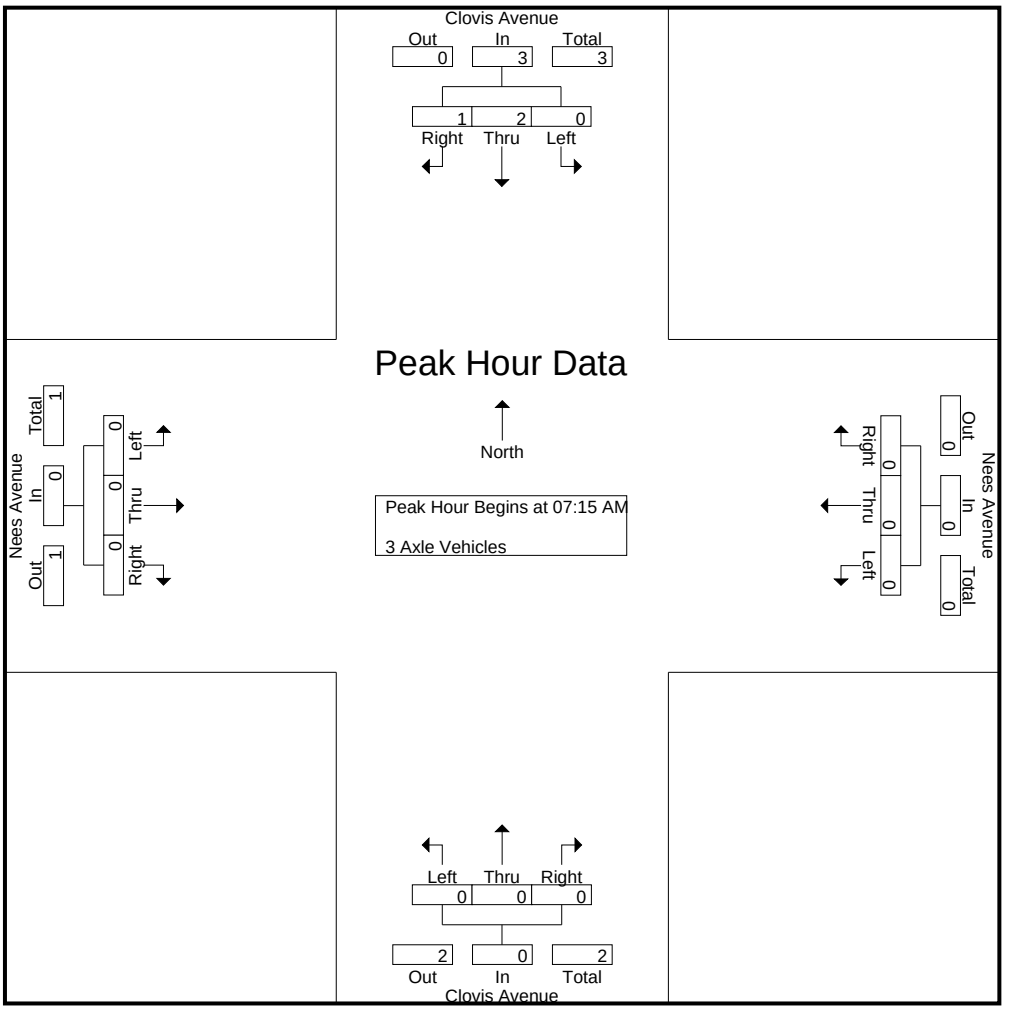
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	1	3	0	0	0	0	0	0	0	0	0	1	0	1	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	2
Grand Total	0	2	1	3	0	1	0	1	1	0	0	1	0	1	0	1	6
Apprch %	0	66.7	33.3		0	100	0		100	0	0		0	100	0		
Total %	0	33.3	16.7	50	0	16.7	0	16.7	16.7	0	0	16.7	0	16.7	0	16.7	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
07:30 AM	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	66.7	33.3		0	0	0		0	0	0		0	0	0		
PHF	.000	.500	.250	.750	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	66.7	33.3		0	0	0		0	0	0		0	0	0	
PHF	.000	.500	.250	.750	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

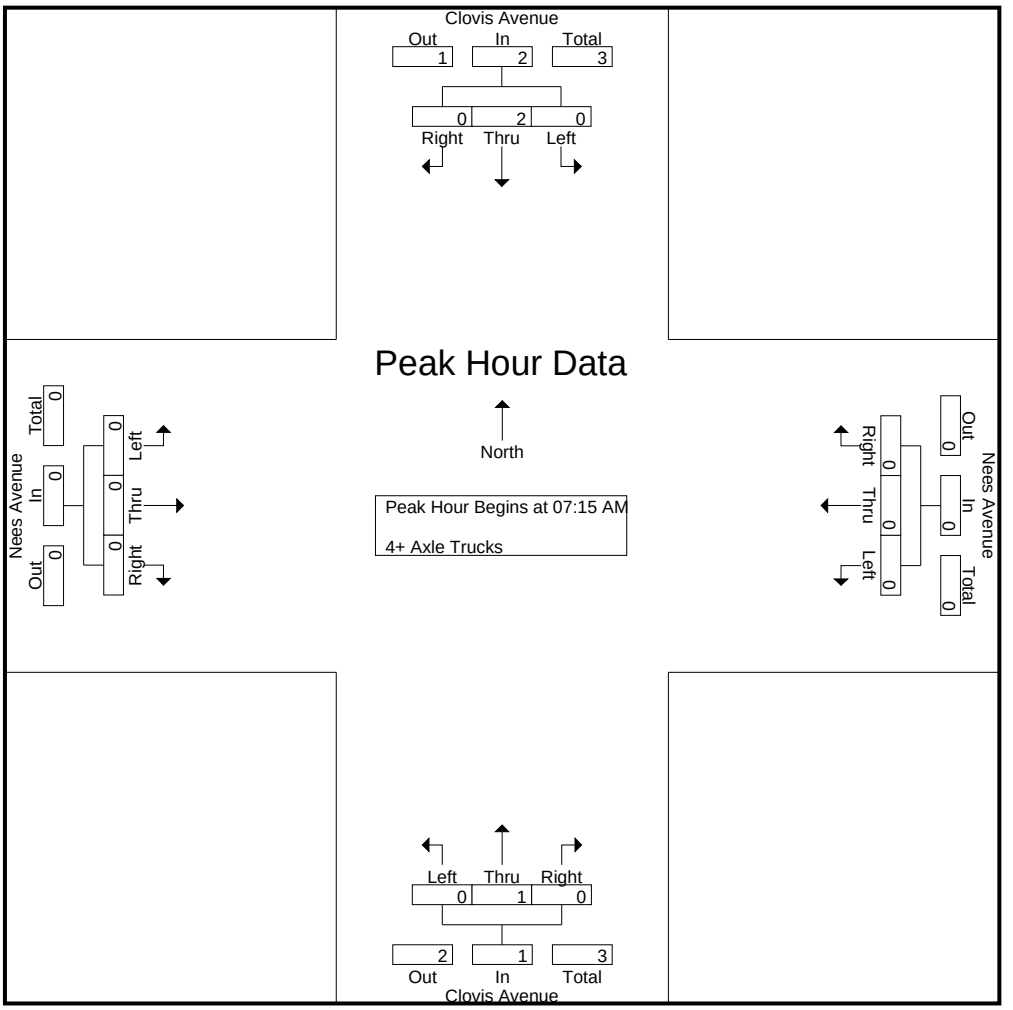
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
Grand Total	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	60	0	60	0	0	0	0	0	40	0	40	0	0	0	0	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

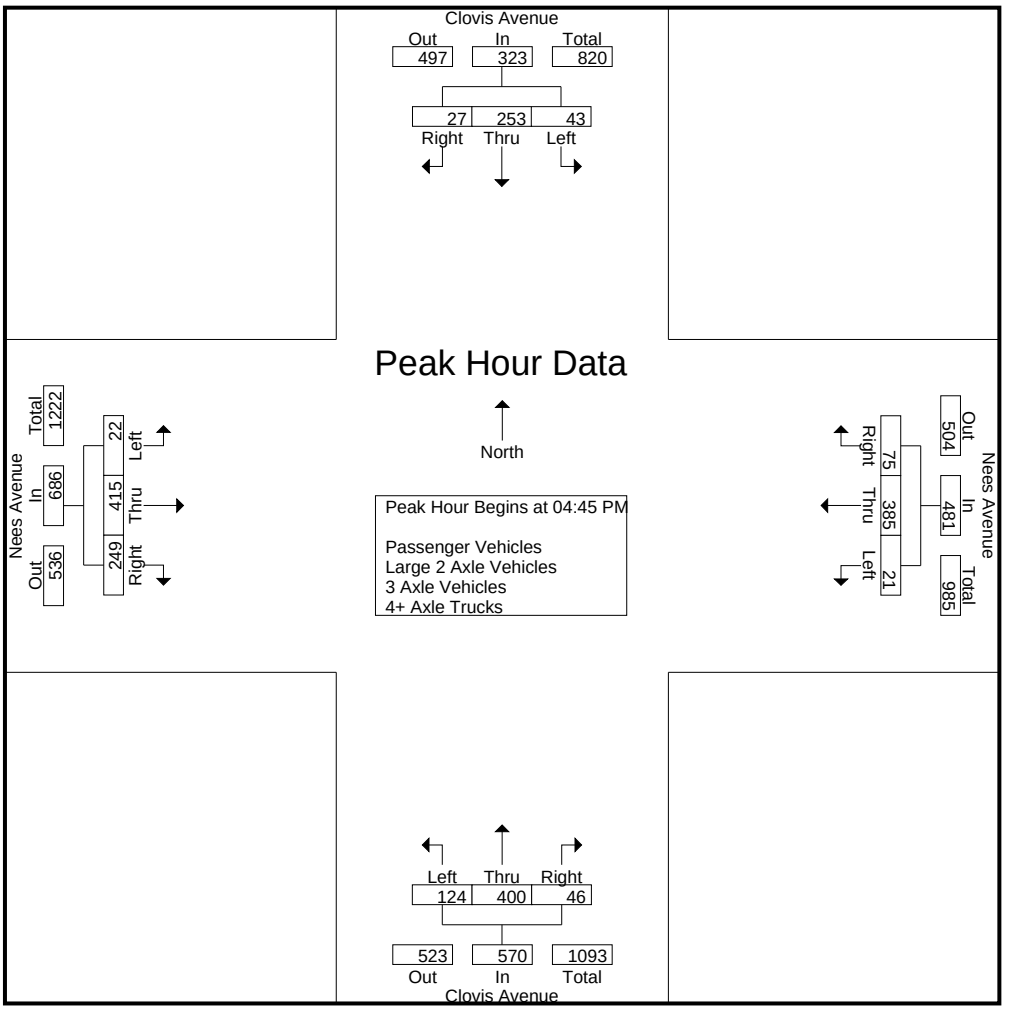
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	6	67	4	77	2	65	17	84	17	99	6	122	4	106	45	155	438
04:15 PM	7	75	8	90	4	56	9	69	41	84	6	131	4	88	41	133	423
04:30 PM	4	56	10	70	4	67	23	94	27	86	14	127	8	85	40	133	424
04:45 PM	8	55	10	73	3	79	19	101	32	86	10	128	6	103	77	186	488
Total	25	253	32	310	13	267	68	348	117	355	36	508	22	382	203	607	1773
05:00 PM	13	87	5	105	4	108	19	131	31	120	9	160	6	93	50	149	545
05:15 PM	11	55	3	69	9	111	16	136	26	116	16	158	3	110	61	174	537
05:30 PM	11	56	9	76	5	87	21	113	35	78	11	124	7	109	61	177	490
05:45 PM	12	44	5	61	5	74	13	92	18	73	11	102	9	88	44	141	396
Total	47	242	22	311	23	380	69	472	110	387	47	544	25	400	216	641	1968
Grand Total	72	495	54	621	36	647	137	820	227	742	83	1052	47	782	419	1248	3741
Apprch %	11.6	79.7	8.7		4.4	78.9	16.7		21.6	70.5	7.9		3.8	62.7	33.6		
Total %	1.9	13.2	1.4	16.6	1	17.3	3.7	21.9	6.1	19.8	2.2	28.1	1.3	20.9	11.2	33.4	
Passenger Vehicles	70	492	54	616	36	644	135	815	225	739	81	1045	47	774	417	1238	3714
% Passenger Vehicles	97.2	99.4	100	99.2	100	99.5	98.5	99.4	99.1	99.6	97.6	99.3	100	99	99.5	99.2	99.3
Large 2 Axle Vehicles	1	3	0	4	0	2	1	3	2	2	2	6	0	8	2	10	23
% Large 2 Axle Vehicles	1.4	0.6	0	0.6	0	0.3	0.7	0.4	0.9	0.3	2.4	0.6	0	1	0.5	0.8	0.6
3 Axle Vehicles	1	0	0	1	0	1	1	2	0	1	0	1	0	0	0	0	4
% 3 Axle Vehicles	1.4	0	0	0.2	0	0.2	0.7	0.2	0	0.1	0	0.1	0	0	0	0	0.1
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	8	55	**10**	73	3	79	19	101	32	86	10	128	6	103	**77**	**186**	488
05:00 PM	**13**	**87**	5	**105**	4	108	19	131	31	**120**	9	**160**	6	93	50	149	**545**
05:15 PM	11	55	3	69	**9**	**111**	16	**136**	26	116	**16**	158	3	**110**	61	174	537
05:30 PM	11	56	9	76	5	87	**21**	113	**35**	78	11	124	**7**	109	61	177	490
Total Volume	43	253	27	323	21	385	75	481	124	400	46	570	22	415	249	686	2060
% App. Total	13.3	78.3	8.4		4.4	80	15.6		21.8	70.2	8.1		3.2	60.5	36.3		
PHF	.827	.727	.675	.769	.583	.867	.893	.884	.886	.833	.719	.891	.786	.943	.808	.922	.945

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:45 PM				04:30 PM				04:45 PM			
+0 mins.	7	75	8	90	3	79	19	101	27	86	14	127	6	103	**77**	**186**
+15 mins.	4	56	**10**	70	4	108	19	131	**32**	86	10	128	6	93	50	149
+30 mins.	8	55	10	73	**9**	**111**	16	**136**	31	**120**	9	**160**	3	**110**	61	174
+45 mins.	**13**	**87**	5	**105**	5	87	**21**	113	26	116	**16**	158	**7**	109	61	177
Total Volume	32	273	33	338	21	385	75	481	116	408	49	573	22	415	249	686
% App. Total	9.5	80.8	9.8		4.4	80	15.6		20.2	71.2	8.6		3.2	60.5	36.3	
PHF	.615	.784	.825	.805	.583	.867	.893	.884	.906	.850	.766	.895	.786	.943	.808	.922

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

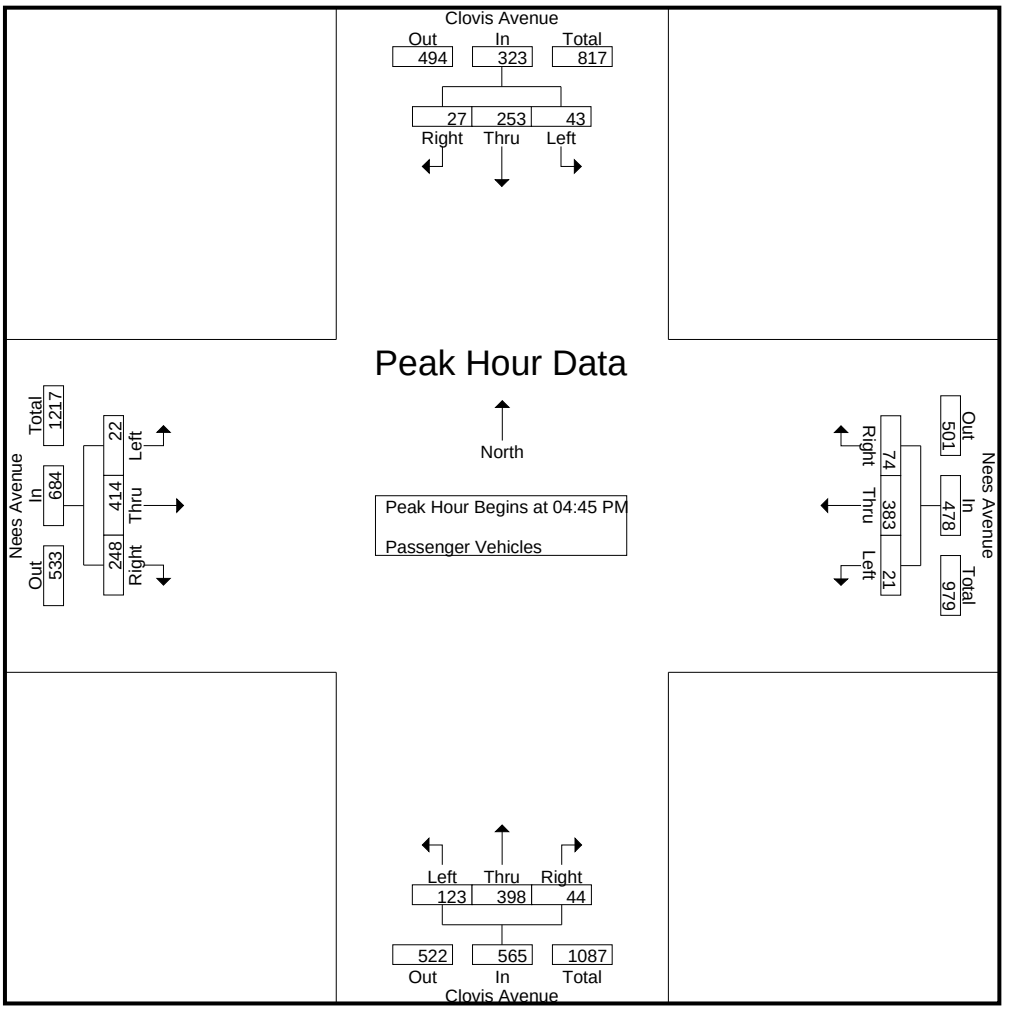
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	65	4	74	2	64	16	82	17	98	6	121	4	102	45	151	428
04:15 PM	6	74	8	88	4	56	9	69	41	84	6	131	4	88	40	132	420
04:30 PM	4	56	10	70	4	67	23	94	26	86	14	126	8	82	40	130	420
04:45 PM	8	55	10	73	3	78	18	99	32	86	10	128	6	103	76	185	485
Total	23	250	32	305	13	265	66	344	116	354	36	506	22	375	201	598	1753
05:00 PM	13	87	5	105	4	107	19	130	31	119	9	159	6	93	50	149	543
05:15 PM	11	55	3	69	9	111	16	136	26	115	14	155	3	109	61	173	533
05:30 PM	11	56	9	76	5	87	21	113	34	78	11	123	7	109	61	177	489
05:45 PM	12	44	5	61	5	74	13	92	18	73	11	102	9	88	44	141	396
Total	47	242	22	311	23	379	69	471	109	385	45	539	25	399	216	640	1961
Grand Total	70	492	54	616	36	644	135	815	225	739	81	1045	47	774	417	1238	3714
Apprch %	11.4	79.9	8.8		4.4	79	16.6		21.5	70.7	7.8		3.8	62.5	33.7		
Total %	1.9	13.2	1.5	16.6	1	17.3	3.6	21.9	6.1	19.9	2.2	28.1	1.3	20.8	11.2	33.3	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	8	55	**10**	73	3	78	18	99	32	86	10	128	6	103	**76**	**185**	485
05:00 PM	**13**	**87**	5	**105**	4	107	19	130	31	**119**	9	**159**	6	93	50	149	**543**
05:15 PM	11	55	3	69	**9**	**111**	16	**136**	26	115	**14**	155	3	**109**	61	173	533
05:30 PM	11	56	9	76	5	87	**21**	113	**34**	78	11	123	**7**	109	61	177	489
Total Volume	43	253	27	323	21	383	74	478	123	398	44	565	22	414	248	684	2050
% App. Total	13.3	78.3	8.4		4.4	80.1	15.5		21.8	70.4	7.8		3.2	60.5	36.3		
PHF	.827	.727	.675	.769	.583	.863	.881	.879	.904	.836	.786	.888	.786	.950	.816	.924	.944

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	8	55	**10**	73	3	78	18	99	32	86	10	128	6	103	**76**	**185**
+15 mins.	**13**	**87**	5	**105**	4	107	19	130	31	**119**	9	**159**	6	93	50	149
+30 mins.	11	55	3	69	**9**	**111**	16	**136**	26	115	**14**	155	3	**109**	61	173
+45 mins.	11	56	9	76	5	87	**21**	113	**34**	78	11	123	**7**	109	61	177
Total Volume	43	253	27	323	21	383	74	478	123	398	44	565	22	414	248	684
% App. Total	13.3	78.3	8.4		4.4	80.1	15.5		21.8	70.4	7.8		3.2	60.5	36.3	
PHF	.827	.727	.675	.769	.583	.863	.881	.879	.904	.836	.786	.888	.786	.950	.816	.924

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

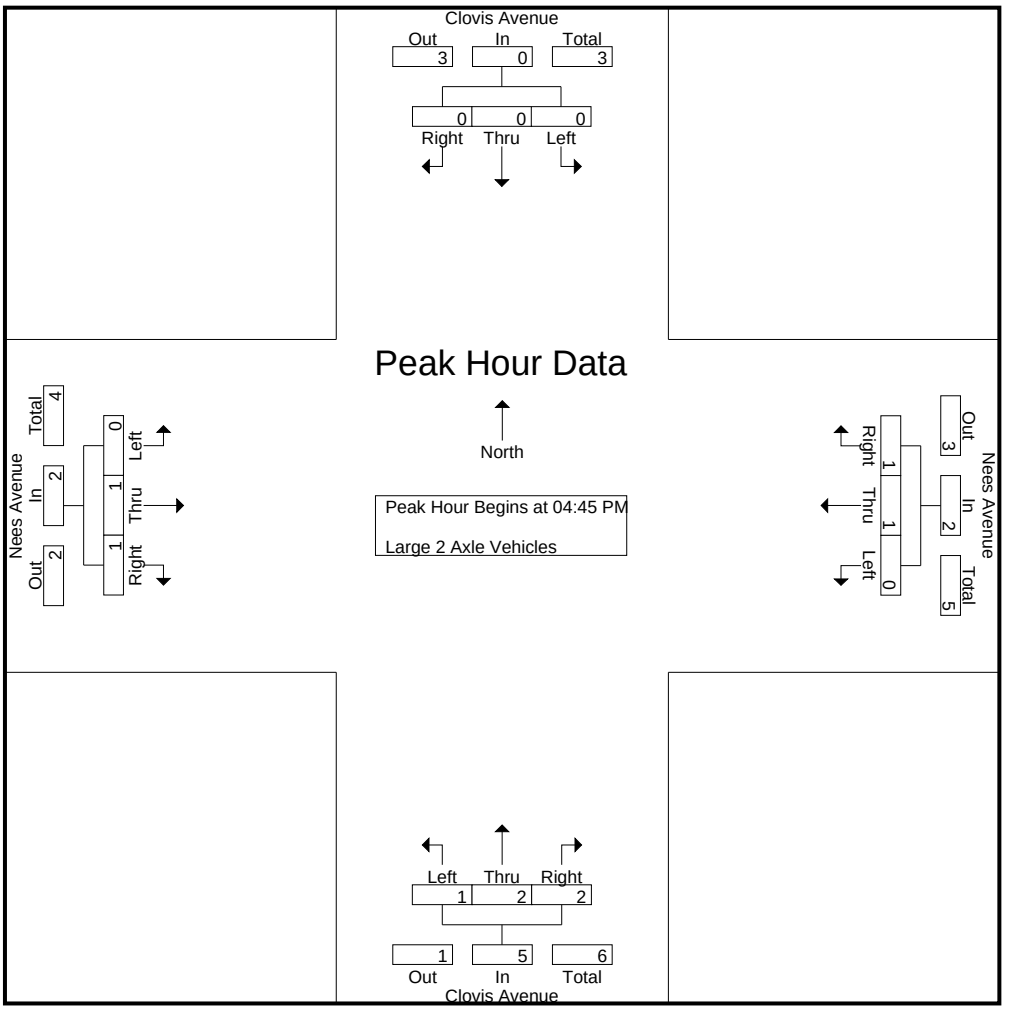
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	4	0	4	7
04:15 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	3	4
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2
Total	1	3	0	4	0	1	1	2	1	0	0	1	0	7	2	9	16
05:00 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	1	2	3	0	1	0	1	4
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	1	2	2	5	0	1	0	1	7
Grand Total	1	3	0	4	0	2	1	3	2	2	2	6	0	8	2	10	23
Apprch %	25	75	0		0	66.7	33.3		33.3	33.3	33.3		0	80	20		
Total %	4.3	13	0	17.4	0	8.7	4.3	13	8.7	8.7	8.7	26.1	0	34.8	8.7	43.5	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	**1**	**1**	2
05:00 PM	0	0	0	0	0	**1**	0	1	0	**1**	0	1	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	1	**2**	**3**	0	**1**	0	1	**4**
05:30 PM	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	1	2	1	2	2	5	0	1	1	2	9
% App. Total	0	0	0		0	50	50		20	40	40		0	50	50		
PHF	.000	.000	.000	.000	.000	.250	.250	.500	.250	.500	.250	.417	.000	.250	.250	.500	.563

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	**1**	**1**
+15 mins.	0	0	0	0	0	**1**	0	1	0	**1**	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	**2**	**3**	0	**1**	0	1
+45 mins.	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0
Total Volume	0	0	0	0	0	1	1	2	1	2	2	5	0	1	1	2
% App. Total	0	0	0		0	50	50		20	40	40		0	50	50	
PHF	.000	.000	.000	.000	.000	.250	.250	.500	.250	.500	.250	.417	.000	.250	.250	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

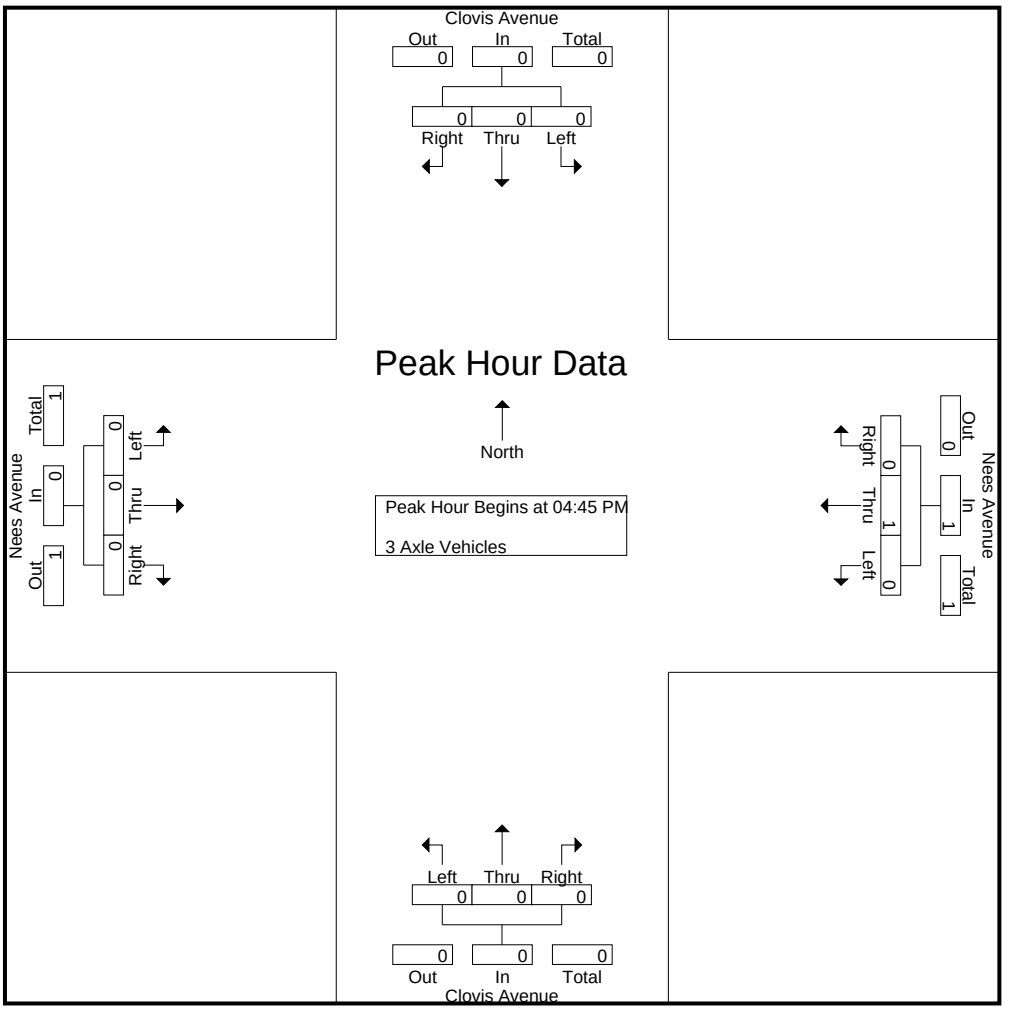
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	1	1	2	0	1	0	1	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	1	1	2	0	1	0	1	0	0	0	0	4
Apprch %	100	0	0		0	50	50		0	100	0		0	0	0		
Total %	25	0	0	25	0	25	25	50	0	25	0	25	0	0	0	0	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

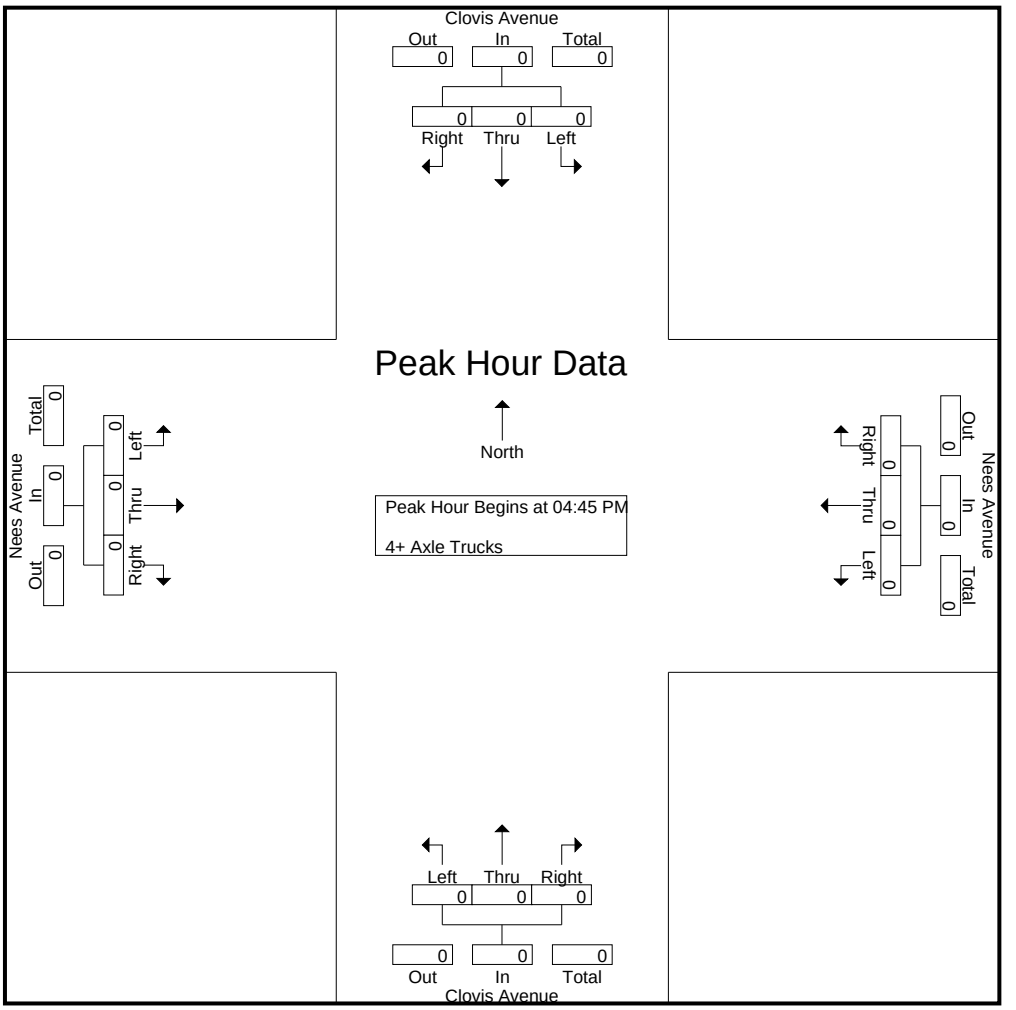
	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Clovis Avenue Southbound				Nees Avenue Westbound				Clovis Avenue Northbound				Nees Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Nees Avenue
Weather: Clear

File Name : 10_CVS_Clo_Nees PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Clovis Avenue
E/W: Nees Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Clovis Avenue	East Leg Nees Avenue	South Leg Clovis Avenue	West Leg Nees Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	2	1	0	3
7:15 AM	0	7	0	0	7
7:30 AM	0	5	1	0	6
7:45 AM	0	0	0	0	0
8:00 AM	0	7	2	0	9
8:15 AM	0	13	0	0	13
8:30 AM	4	9	4	4	21
8:45 AM	2	13	0	0	15
TOTAL VOLUMES:	6	56	8	4	74

	North Leg Clovis Avenue	East Leg Nees Avenue	South Leg Clovis Avenue	West Leg Nees Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	1	1	0	2
4:45 PM	0	2	0	0	2
5:00 PM	1	0	0	0	1
5:15 PM	0	0	0	2	2
5:30 PM	0	1	0	0	1
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	1	5	1	2	9

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Clovis Avenue
E/W: Nees Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Clovis Avenue			Westbound Nees Avenue			Northbound Clovis Avenue			Eastbound Nees Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
TOTAL VOLUMES:	0	3	0	0	1	0	1	3	0	0	0	0	8

	Southbound Clovis Avenue			Westbound Nees Avenue			Northbound Clovis Avenue			Eastbound Nees Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	3	0	0	1	0	0	3	0	0	1	0	8

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

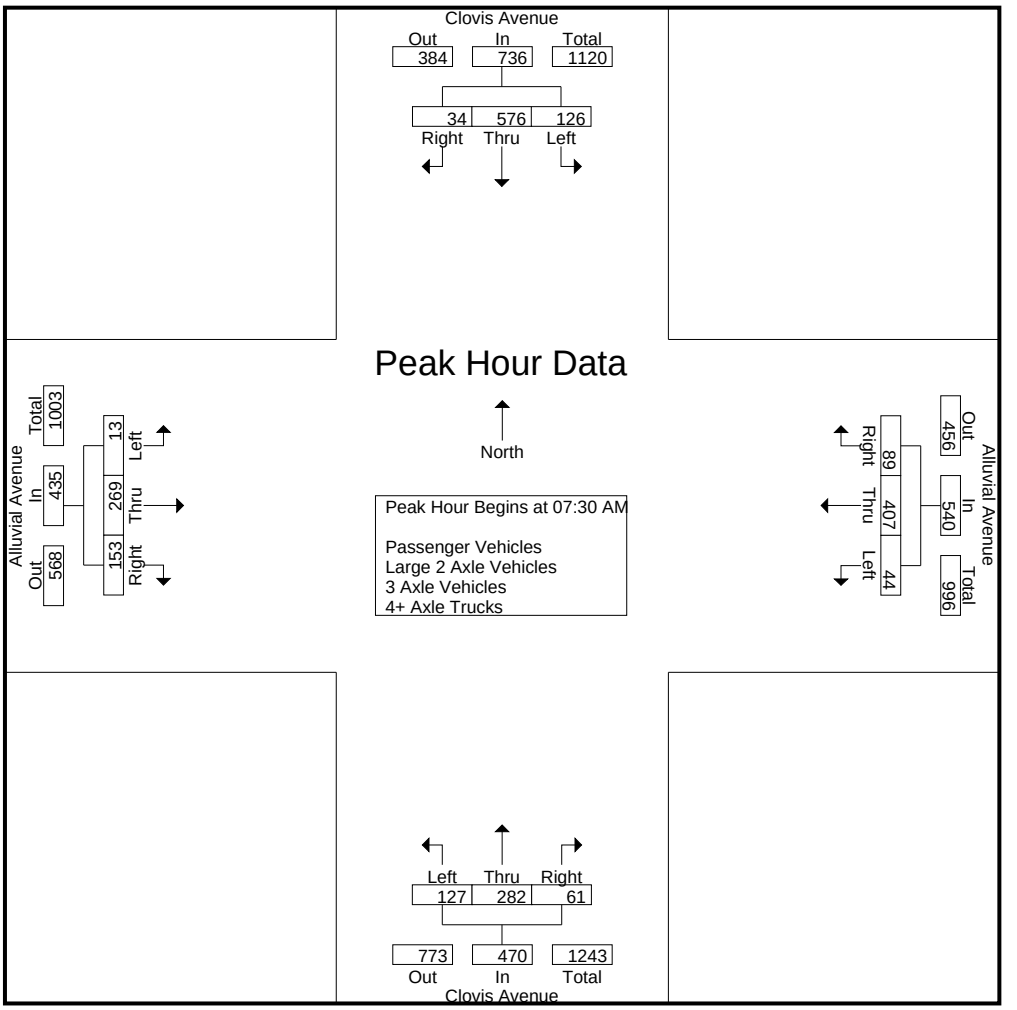
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	12	98	6	116	8	53	9	70	14	71	5	90	3	27	26	56	332
07:15 AM	15	106	8	129	5	117	21	143	27	86	5	118	1	36	21	58	448
07:30 AM	27	152	17	196	4	145	30	179	34	90	10	134	3	60	42	105	614
07:45 AM	38	163	8	209	11	105	18	134	33	61	16	110	2	88	38	128	581
Total	92	519	39	650	28	420	78	526	108	308	36	452	9	211	127	347	1975
08:00 AM	32	129	5	166	9	89	24	122	27	78	15	120	5	59	46	110	518
08:15 AM	29	132	4	165	20	68	17	105	33	53	20	106	3	62	27	92	468
08:30 AM	14	123	3	140	11	68	10	89	17	70	9	96	3	41	26	70	395
08:45 AM	17	109	7	133	8	57	3	68	23	58	9	90	1	37	32	70	361
Total	92	493	19	604	48	282	54	384	100	259	53	412	12	199	131	342	1742
Grand Total	184	1012	58	1254	76	702	132	910	208	567	89	864	21	410	258	689	3717
Apprch %	14.7	80.7	4.6		8.4	77.1	14.5		24.1	65.6	10.3		3	59.5	37.4		
Total %	5	27.2	1.6	33.7	2	18.9	3.6	24.5	5.6	15.3	2.4	23.2	0.6	11	6.9	18.5	
Passenger Vehicles	181	1000	55	1236	76	693	129	898	205	547	86	838	20	387	250	657	3629
% Passenger Vehicles	98.4	98.8	94.8	98.6	100	98.7	97.7	98.7	98.6	96.5	96.6	97	95.2	94.4	96.9	95.4	97.6
Large 2 Axle Vehicles	2	9	2	13	0	9	3	12	3	17	1	21	1	21	8	30	76
% Large 2 Axle Vehicles	1.1	0.9	3.4	1	0	1.3	2.3	1.3	1.4	3	1.1	2.4	4.8	5.1	3.1	4.4	2
3 Axle Vehicles	1	1	1	3	0	0	0	0	0	1	1	2	0	2	0	2	7
% 3 Axle Vehicles	0.5	0.1	1.7	0.2	0	0	0	0	0	0.2	1.1	0.2	0	0.5	0	0.3	0.2
4+ Axle Trucks	0	2	0	2	0	0	0	0	0	2	1	3	0	0	0	0	5
% 4+ Axle Trucks	0	0.2	0	0.2	0	0	0	0	0	0.4	1.1	0.3	0	0	0	0	0.1

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	27	152	**17**	196	4	**145**	**30**	**179**	**34**	**90**	10	**134**	3	60	42	105	**614**
07:45 AM	**38**	**163**	8	**209**	11	105	18	134	33	61	16	110	2	**88**	38	**128**	581
08:00 AM	32	129	5	166	9	89	24	122	27	78	15	120	**5**	59	**46**	110	518
08:15 AM	29	132	4	165	**20**	68	17	105	33	53	**20**	106	3	62	27	92	468
Total Volume	126	576	34	736	44	407	89	540	127	282	61	470	13	269	153	435	2181
% App. Total	17.1	78.3	4.6		8.1	75.4	16.5		27	60	13		3	61.8	35.2		
PHF	.829	.883	.500	.880	.550	.702	.742	.754	.934	.783	.763	.877	.650	.764	.832	.850	.888

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:30 AM			
+0 mins.	27	152	**17**	196	5	117	21	143	27	86	5	118	3	60	42	105
+15 mins.	**38**	**163**	8	**209**	4	**145**	**30**	**179**	**34**	**90**	10	**134**	2	**88**	38	**128**
+30 mins.	32	129	5	166	**11**	105	18	134	33	61	**16**	110	**5**	59	**46**	110
+45 mins.	29	132	4	165	9	89	24	122	27	78	15	120	3	62	27	92
Total Volume	126	576	34	736	29	456	93	578	121	315	46	482	13	269	153	435
% App. Total	17.1	78.3	4.6		5	78.9	16.1		25.1	65.4	9.5		3	61.8	35.2	
PHF	.829	.883	.500	.880	.659	.786	.775	.807	.890	.875	.719	.899	.650	.764	.832	.850

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

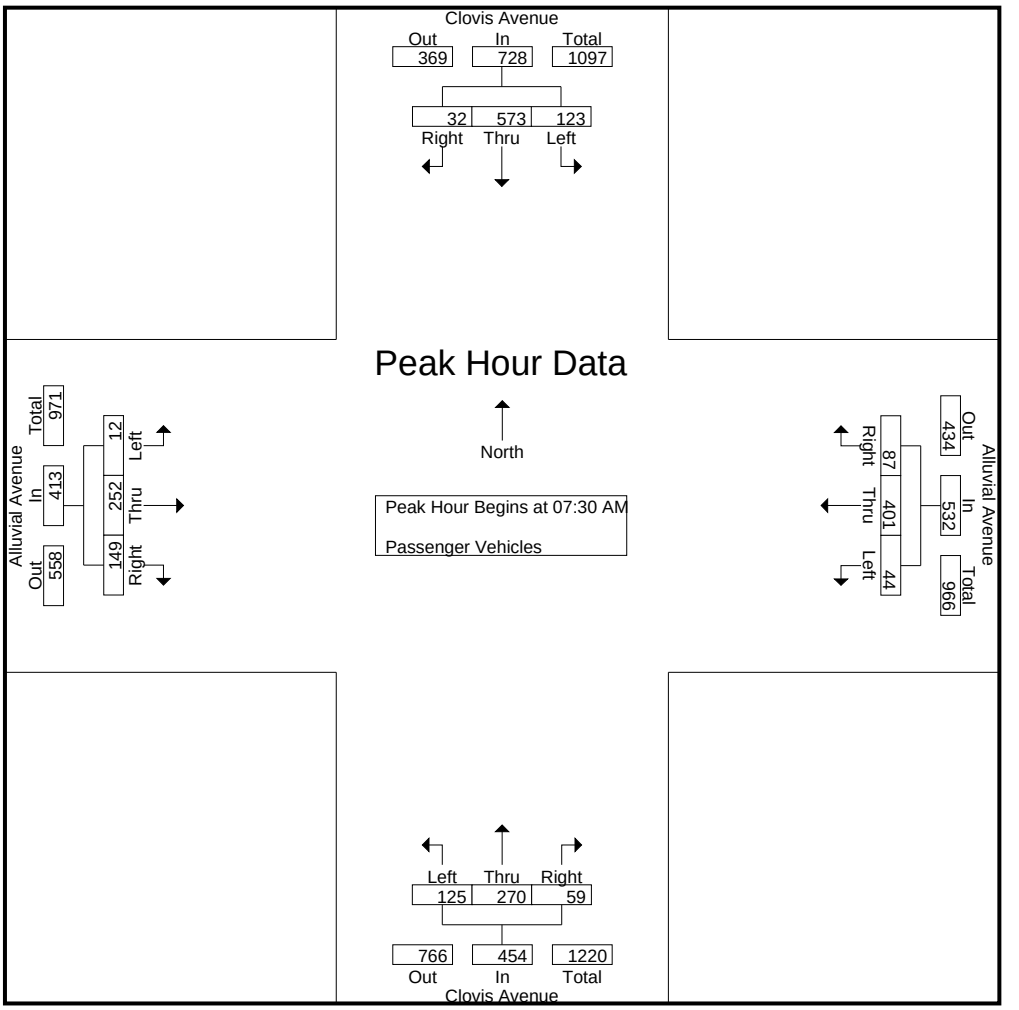
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	12	97	6	115	8	52	9	69	13	69	4	86	3	27	25	55	325
07:15 AM	15	103	8	126	5	115	21	141	27	83	5	115	1	35	21	57	439
07:30 AM	26	152	16	194	4	142	30	176	34	85	10	129	3	54	41	98	597
07:45 AM	38	162	7	207	11	104	17	132	33	59	14	106	2	85	38	125	570
Total	91	514	37	642	28	413	77	518	107	296	33	436	9	201	125	335	1931
08:00 AM	31	127	5	163	9	89	24	122	26	76	15	117	4	57	43	104	506
08:15 AM	28	132	4	164	20	66	16	102	32	50	20	102	3	56	27	86	454
08:30 AM	14	121	3	138	11	68	9	88	17	69	9	95	3	36	24	63	384
08:45 AM	17	106	6	129	8	57	3	68	23	56	9	88	1	37	31	69	354
Total	90	486	18	594	48	280	52	380	98	251	53	402	11	186	125	322	1698
Grand Total	181	1000	55	1236	76	693	129	898	205	547	86	838	20	387	250	657	3629
Apprch %	14.6	80.9	4.4		8.5	77.2	14.4		24.5	65.3	10.3		3	58.9	38.1		
Total %	5	27.6	1.5	34.1	2.1	19.1	3.6	24.7	5.6	15.1	2.4	23.1	0.6	10.7	6.9	18.1	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	26	152	**16**	194	4	**142**	**30**	**176**	**34**	**85**	10	**129**	3	54	41	98	**597**
07:45 AM	**38**	**162**	7	**207**	11	104	17	132	33	59	14	106	2	**85**	38	**125**	570
08:00 AM	31	127	5	163	9	89	24	122	26	76	15	117	**4**	57	**43**	104	506
08:15 AM	28	132	4	164	**20**	66	16	102	32	50	**20**	102	3	56	27	86	454
Total Volume	123	573	32	728	44	401	87	532	125	270	59	454	12	252	149	413	2127
% App. Total	16.9	78.7	4.4		8.3	75.4	16.4		27.5	59.5	13		2.9	61	36.1		
PHF	.809	.884	.500	.879	.550	.706	.725	.756	.919	.794	.738	.880	.750	.741	.866	.826	.891

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	26	152	**16**	194	4	**142**	**30**	**176**	**34**	**85**	10	**129**	3	54	41	98
+15 mins.	**38**	**162**	7	**207**	11	104	17	132	33	59	14	106	2	**85**	38	**125**
+30 mins.	31	127	5	163	9	89	24	122	26	76	15	117	**4**	57	**43**	104
+45 mins.	28	132	4	164	**20**	66	16	102	32	50	**20**	102	3	56	27	86
Total Volume	123	573	32	728	44	401	87	532	125	270	59	454	12	252	149	413
% App. Total	16.9	78.7	4.4		8.3	75.4	16.4		27.5	59.5	13		2.9	61	36.1	
PHF	.809	.884	.500	.879	.550	.706	.725	.756	.919	.794	.738	.880	.750	.741	.866	.826

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

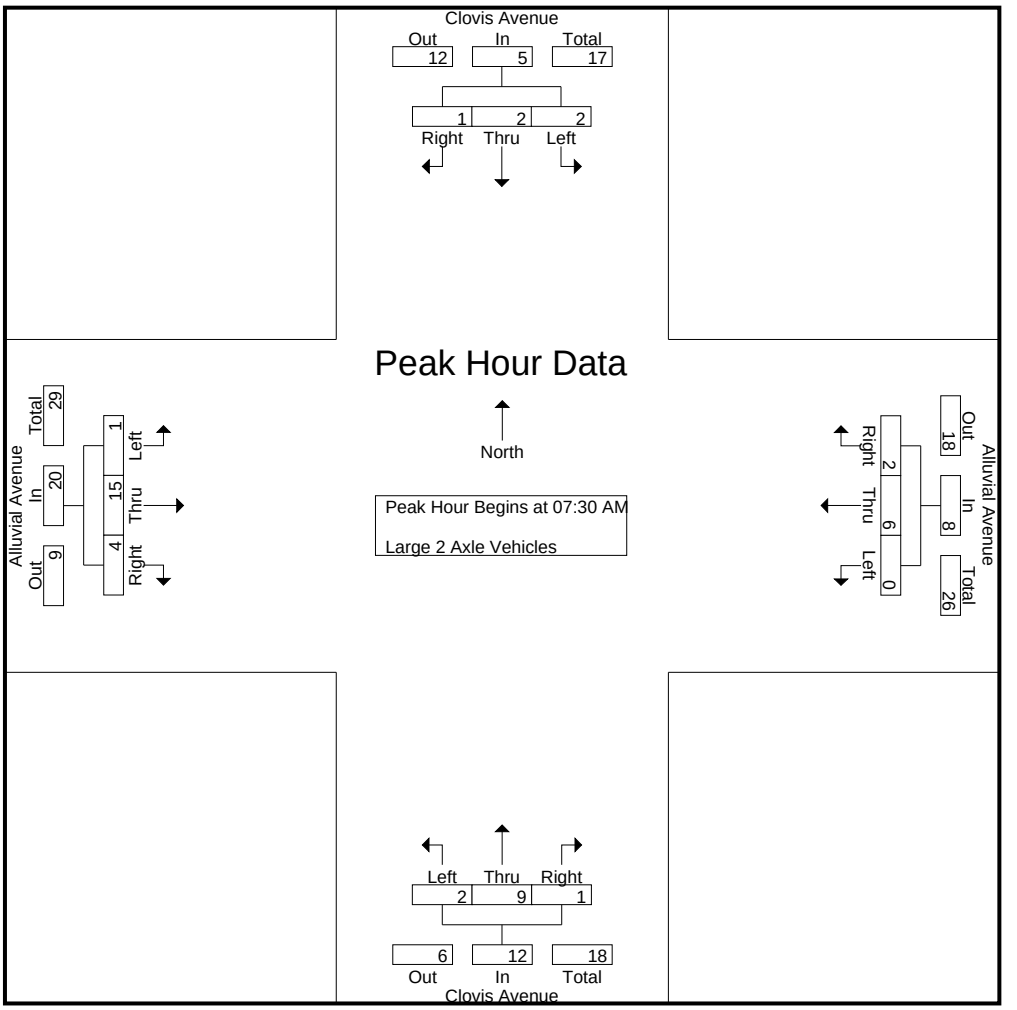
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	1	0	1	1	2	0	3	0	0	1	1	6
07:15 AM	0	2	0	2	0	2	0	2	0	3	0	3	0	1	0	1	8
07:30 AM	1	0	0	1	0	3	0	3	0	4	0	4	0	4	1	5	13
07:45 AM	0	0	1	1	0	1	1	2	0	2	1	3	0	3	0	3	9
Total	1	3	1	5	0	7	1	8	1	11	1	13	0	8	2	10	36
08:00 AM	1	2	0	3	0	0	0	0	1	2	0	3	1	2	3	6	12
08:15 AM	0	0	0	0	0	2	1	3	1	1	0	2	0	6	0	6	11
08:30 AM	0	2	0	2	0	0	1	1	0	1	0	1	0	5	2	7	11
08:45 AM	0	2	1	3	0	0	0	0	0	2	0	2	0	0	1	1	6
Total	1	6	1	8	0	2	2	4	2	6	0	8	1	13	6	20	40
Grand Total	2	9	2	13	0	9	3	12	3	17	1	21	1	21	8	30	76
Apprch %	15.4	69.2	15.4		0	75	25		14.3	81	4.8		3.3	70	26.7		
Total %	2.6	11.8	2.6	17.1	0	11.8	3.9	15.8	3.9	22.4	1.3	27.6	1.3	27.6	10.5	39.5	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	0	0	1	0	**3**	0	**3**	0	**4**	0	**4**	0	4	1	5	**13**
07:45 AM	0	0	**1**	1	0	1	**1**	2	0	2	**1**	3	0	3	0	3	9
08:00 AM	1	**2**	0	**3**	0	0	0	0	**1**	2	0	3	**1**	2	**3**	**6**	12
08:15 AM	0	0	0	0	0	2	1	3	1	1	0	2	0	**6**	0	6	11
Total Volume	2	2	1	5	0	6	2	8	2	9	1	12	1	15	4	20	45
% App. Total	40	40	20		0	75	25		16.7	75	8.3		5	75	20		
PHF	.500	.250	.250	.417	.000	.500	.500	.667	.500	.563	.250	.750	.250	.625	.333	.833	.865

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	**1**	0	0	1	0	**3**	0	**3**	0	**4**	0	**4**	0	4	1	5
+15 mins.	0	0	**1**	1	0	1	**1**	2	0	2	**1**	3	0	3	0	3
+30 mins.	1	**2**	0	**3**	0	0	0	0	**1**	2	0	3	**1**	2	**3**	**6**
+45 mins.	0	0	0	0	0	2	1	3	1	1	0	2	0	**6**	0	6
Total Volume	2	2	1	5	0	6	2	8	2	9	1	12	1	15	4	20
% App. Total	40	40	20		0	75	25		16.7	75	8.3		5	75	20	
PHF	.500	.250	.250	.417	.000	.500	.500	.667	.500	.563	.250	.750	.250	.625	.333	.833

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

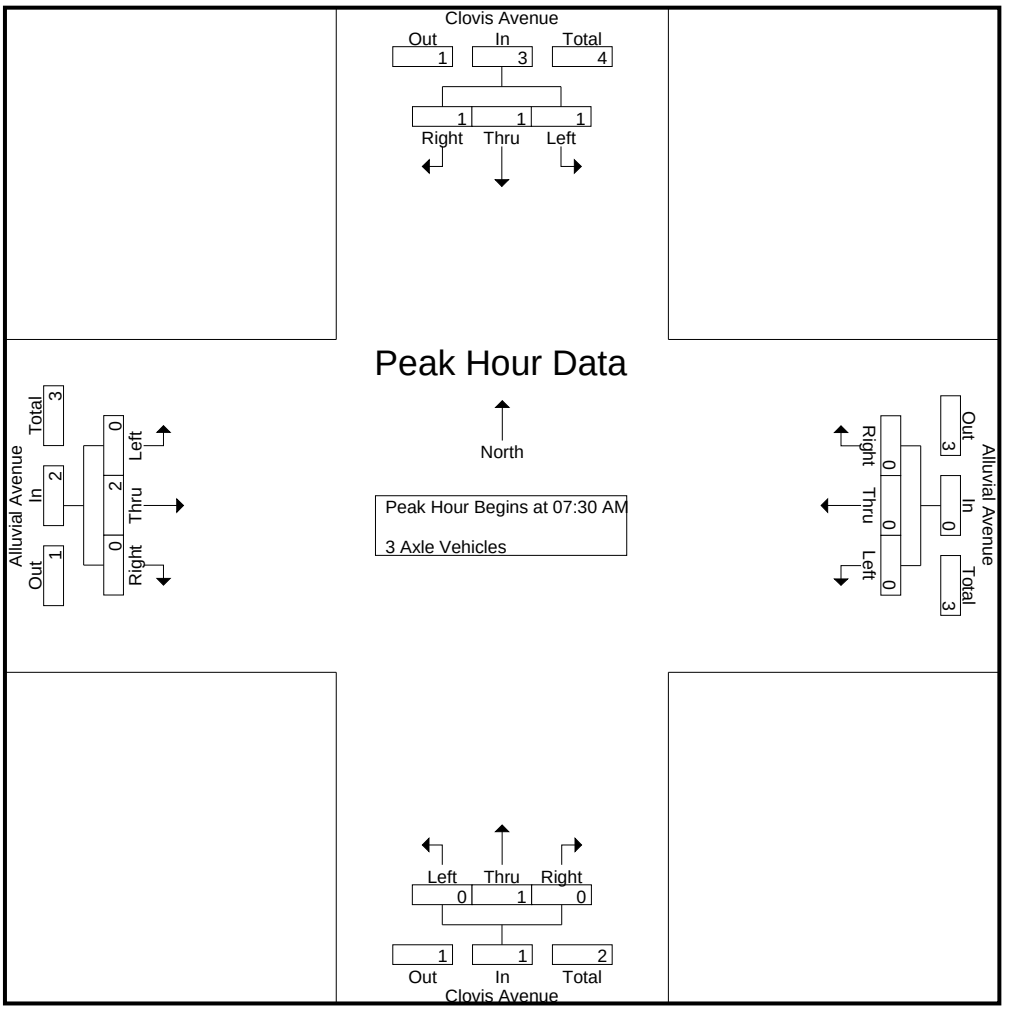
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2	3
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	1	2	0	0	0	0	0	0	1	1	0	2	0	2	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Grand Total	1	1	1	3	0	0	0	0	0	1	1	2	0	2	0	2	7
Apprch %	33.3	33.3	33.3		0	0	0		0	50	50		0	100	0		
Total %	14.3	14.3	14.3	42.9	0	0	0	0	0	14.3	14.3	28.6	0	28.6	0	28.6	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	**2**	0	**2**	**3**
07:45 AM	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	**1**	0	0	1	0	0	0	0	0	**1**	0	**1**	0	0	0	0	2
Total Volume	1	1	1	3	0	0	0	0	0	1	0	1	0	2	0	2	6
% App. Total	33.3	33.3	33.3		0	0	0		0	100	0		0	100	0		
PHF	.250	.250	.250	.750	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.000	.250	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	**2**	0	**2**
+15 mins.	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	**1**	0	0	1	0	0	0	0	0	**1**	0	**1**	0	0	0	0
Total Volume	1	1	1	3	0	0	0	0	0	1	0	1	0	2	0	2
% App. Total	33.3	33.3	33.3		0	0	0		0	100	0		0	100	0	
PHF	.250	.250	.250	.750	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

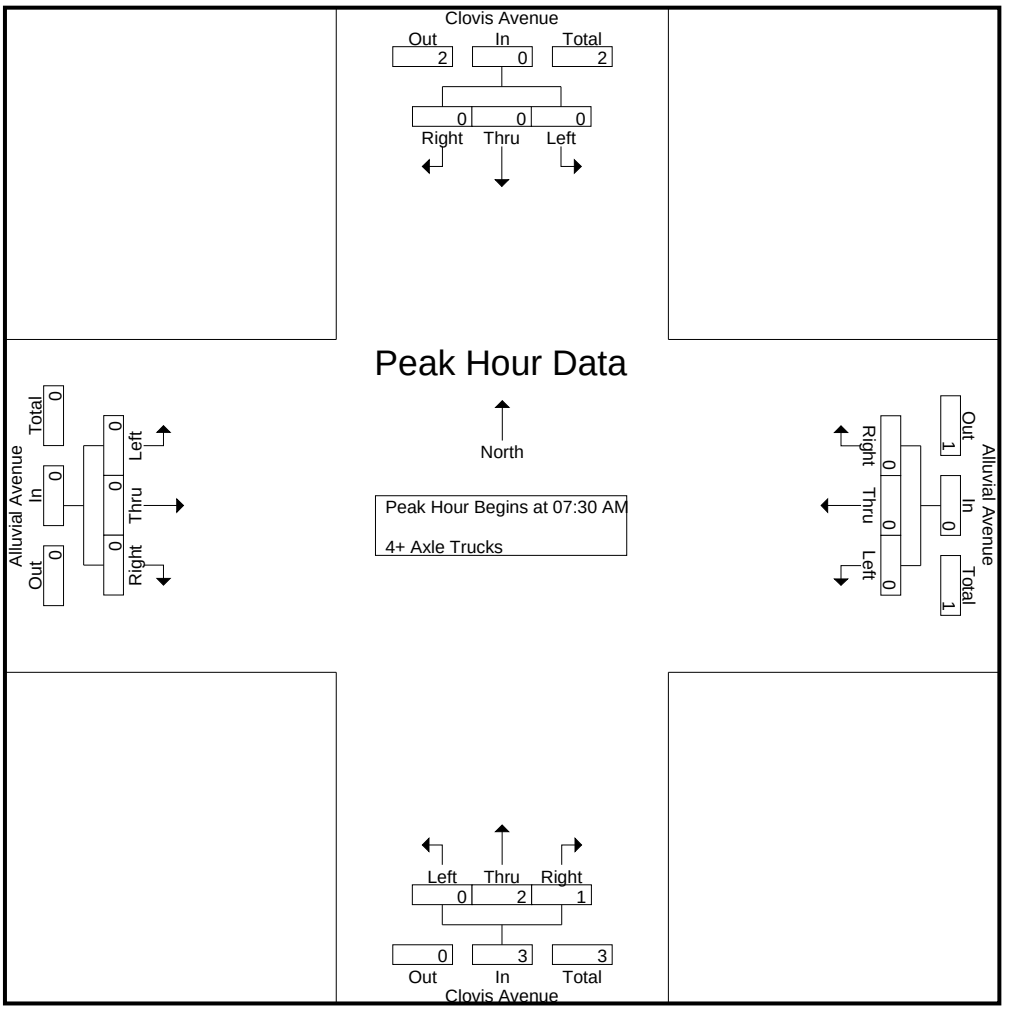
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	1	2	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Grand Total	0	2	0	2	0	0	0	0	0	2	1	3	0	0	0	0	5
Apprch %	0	100	0		0	0	0		0	66.7	33.3		0	0	0		
Total %	0	40	0	40	0	0	0	0	0	40	20	60	0	0	0	0	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
07:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	3
% App. Total	0	0	0		0	0	0		0	66.7	33.3		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.750	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0
% App. Total	0	0	0		0	0	0		0	66.7	33.3		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.750	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

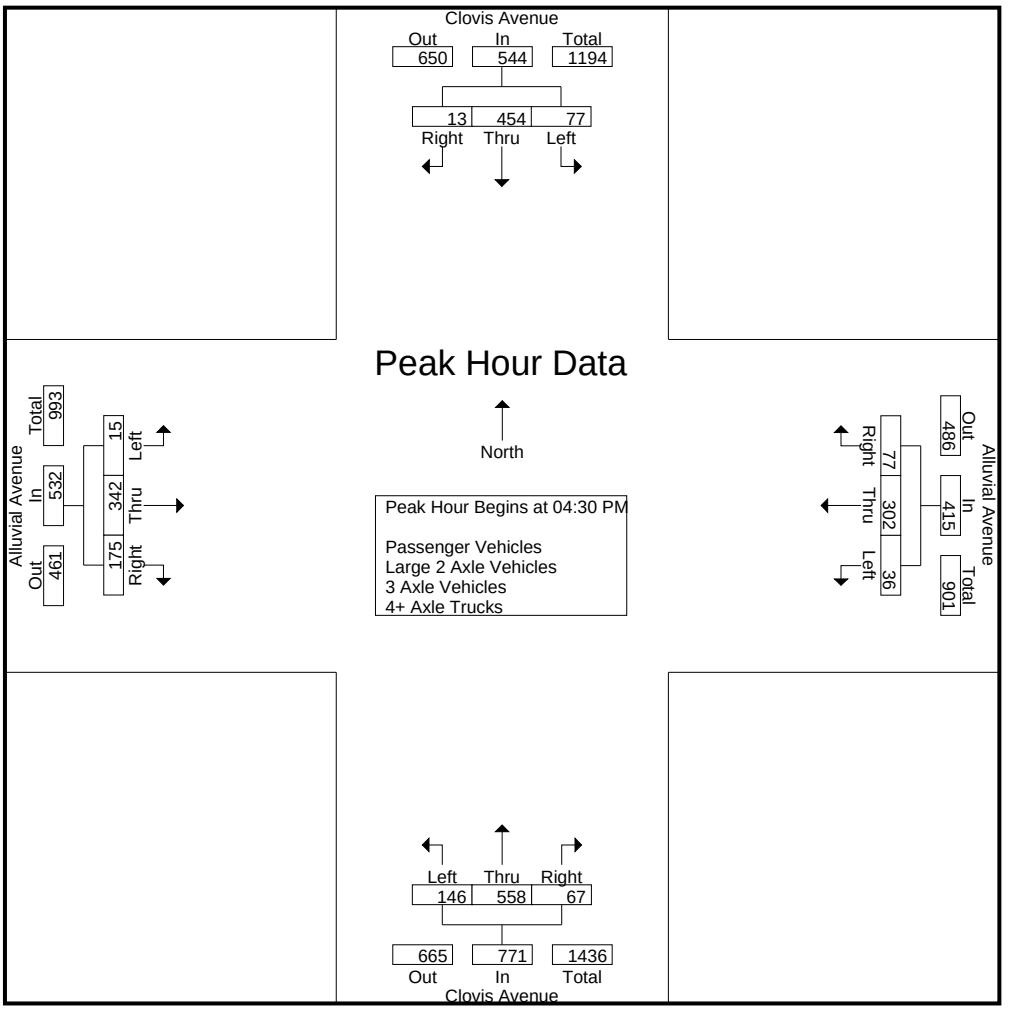
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	20	91	6	117	6	49	16	71	35	117	18	170	1	64	32	97	455
04:15 PM	21	111	3	135	14	49	16	79	43	134	23	200	1	79	33	113	527
04:30 PM	15	107	0	122	8	59	11	78	25	128	18	171	5	92	48	145	516
04:45 PM	24	116	3	143	10	71	22	103	35	125	10	170	3	67	40	110	526
Total	80	425	12	517	38	228	65	331	138	504	69	711	10	302	153	465	2024
05:00 PM	19	117	6	142	11	77	20	108	38	173	25	236	4	75	41	120	606
05:15 PM	19	114	4	137	7	95	24	126	48	132	14	194	3	108	46	157	614
05:30 PM	24	110	2	136	7	63	12	82	34	130	21	185	5	79	29	113	516
05:45 PM	18	83	3	104	9	54	8	71	31	120	25	176	3	75	43	121	472
Total	80	424	15	519	34	289	64	387	151	555	85	791	15	337	159	511	2208
Grand Total	160	849	27	1036	72	517	129	718	289	1059	154	1502	25	639	312	976	4232
Apprch %	15.4	81.9	2.6		10	72	18		19.2	70.5	10.3		2.6	65.5	32		
Total %	3.8	20.1	0.6	24.5	1.7	12.2	3	17	6.8	25	3.6	35.5	0.6	15.1	7.4	23.1	
Passenger Vehicles	159	845	27	1031	71	516	128	715	289	1054	154	1497	24	634	306	964	4207
% Passenger Vehicles	99.4	99.5	100	99.5	98.6	99.8	99.2	99.6	100	99.5	100	99.7	96	99.2	98.1	98.8	99.4
Large 2 Axle Vehicles	1	4	0	5	1	1	1	3	0	5	0	5	1	5	5	11	24
% Large 2 Axle Vehicles	0.6	0.5	0	0.5	1.4	0.2	0.8	0.4	0	0.5	0	0.3	4	0.8	1.6	1.1	0.6
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.1	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	107	0	122	8	59	11	78	25	128	18	171	**5**	92	**48**	145	516
04:45 PM	**24**	116	3	**143**	10	71	22	103	35	125	10	170	3	67	40	110	526
05:00 PM	19	**117**	**6**	142	**11**	77	20	108	38	**173**	**25**	**236**	4	75	41	120	606
05:15 PM	19	114	4	137	7	**95**	**24**	**126**	**48**	132	14	194	3	**108**	46	**157**	**614**
Total Volume	77	454	13	544	36	302	77	415	146	558	67	771	15	342	175	532	2262
% App. Total	14.2	83.5	2.4		8.7	72.8	18.6		18.9	72.4	8.7		2.8	64.3	32.9		
PHF	.802	.970	.542	.951	.818	.795	.802	.823	.760	.806	.670	.817	.750	.792	.911	.847	.921

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				05:00 PM				04:30 PM			
+0 mins.	**24**	116	3	**143**	10	71	22	103	38	**173**	**25**	**236**	**5**	92	**48**	145
+15 mins.	19	**117**	**6**	142	**11**	77	20	108	**48**	132	14	194	3	67	40	110
+30 mins.	19	114	4	137	7	**95**	**24**	**126**	34	130	21	185	4	75	41	120
+45 mins.	24	110	2	136	7	63	12	82	31	120	25	176	3	**108**	46	**157**
Total Volume	86	457	15	558	35	306	78	419	151	555	85	791	15	342	175	532
% App. Total	15.4	81.9	2.7		8.4	73	18.6		19.1	70.2	10.7		2.8	64.3	32.9	
PHF	.896	.976	.625	.976	.795	.805	.813	.831	.786	.802	.850	.838	.750	.792	.911	.847

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

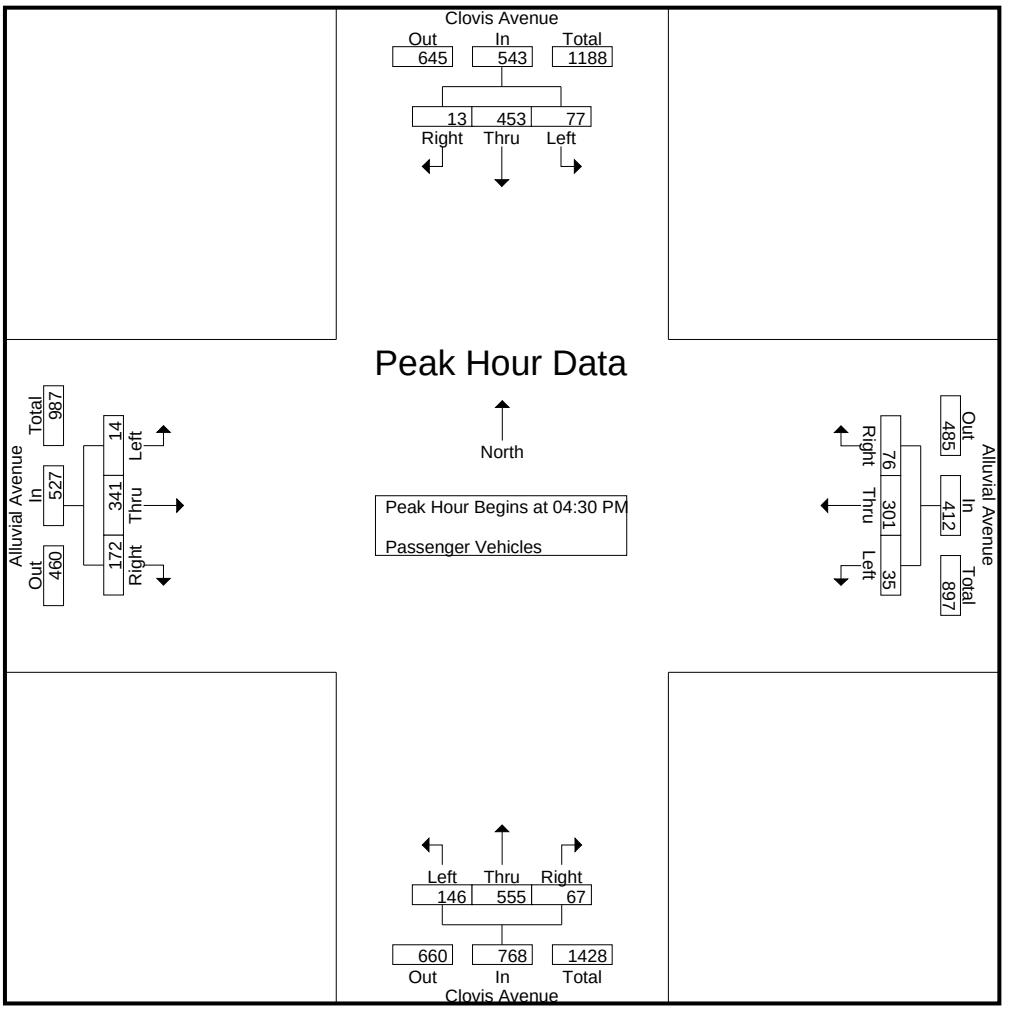
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	19	90	6	115	6	49	16	71	35	117	18	170	1	61	31	93	449
04:15 PM	21	109	3	133	14	49	16	79	43	133	23	199	1	79	32	112	523
04:30 PM	15	107	0	122	8	59	11	78	25	128	18	171	4	91	47	142	513
04:45 PM	24	115	3	142	9	70	22	101	35	125	10	170	3	67	40	110	523
Total	79	421	12	512	37	227	65	329	138	503	69	710	9	298	150	457	2008
05:00 PM	19	117	6	142	11	77	19	107	38	173	25	236	4	75	40	119	604
05:15 PM	19	114	4	137	7	95	24	126	48	129	14	191	3	108	45	156	610
05:30 PM	24	110	2	136	7	63	12	82	34	129	21	184	5	79	28	112	514
05:45 PM	18	83	3	104	9	54	8	71	31	120	25	176	3	74	43	120	471
Total	80	424	15	519	34	289	63	386	151	551	85	787	15	336	156	507	2199
Grand Total	159	845	27	1031	71	516	128	715	289	1054	154	1497	24	634	306	964	4207
Apprch %	15.4	82	2.6		9.9	72.2	17.9		19.3	70.4	10.3		2.5	65.8	31.7		
Total %	3.8	20.1	0.6	24.5	1.7	12.3	3	17	6.9	25.1	3.7	35.6	0.6	15.1	7.3	22.9	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	107	0	122	8	59	11	78	25	128	18	171	**4**	91	**47**	142	513
04:45 PM	**24**	115	3	**142**	9	70	22	101	35	125	10	170	3	67	40	110	523
05:00 PM	19	**117**	**6**	142	**11**	77	19	107	38	**173**	**25**	**236**	4	75	40	119	604
05:15 PM	19	114	4	137	7	**95**	**24**	**126**	**48**	129	14	191	3	**108**	45	**156**	**610**
Total Volume	77	453	13	543	35	301	76	412	146	555	67	768	14	341	172	527	2250
% App. Total	14.2	83.4	2.4		8.5	73.1	18.4		19	72.3	8.7		2.7	64.7	32.6		
PHF	.802	.968	.542	.956	.795	.792	.792	.817	.760	.802	.670	.814	.875	.789	.915	.845	.922

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	15	107	0	122	8	59	11	78	25	128	18	171	**4**	91	**47**	142
+15 mins.	**24**	115	3	**142**	9	70	22	101	35	125	10	170	3	67	40	110
+30 mins.	19	**117**	**6**	142	**11**	77	19	107	38	**173**	**25**	**236**	4	75	40	119
+45 mins.	19	114	4	137	7	**95**	**24**	**126**	**48**	129	14	191	3	**108**	45	**156**
Total Volume	77	453	13	543	35	301	76	412	146	555	67	768	14	341	172	527
% App. Total	14.2	83.4	2.4		8.5	73.1	18.4		19	72.3	8.7		2.7	64.7	32.6	
PHF	.802	.968	.542	.956	.795	.792	.792	.817	.760	.802	.670	.814	.875	.789	.915	.845

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

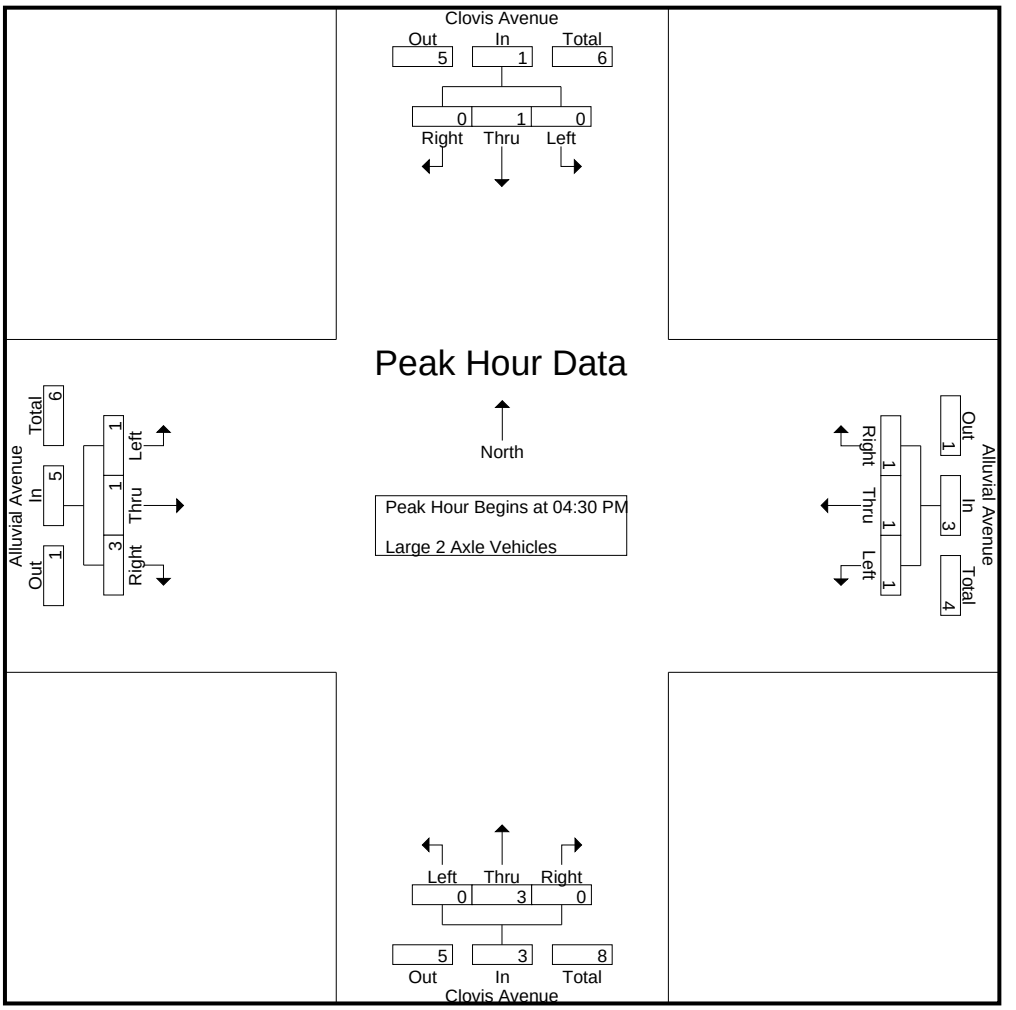
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	3	1	4	6
04:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	3
04:45 PM	0	1	0	1	1	1	0	2	0	0	0	0	0	0	0	0	3
Total	1	4	0	5	1	1	0	2	0	1	0	1	1	4	2	7	15
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	1	1	4
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	1	1	0	4	0	4	0	1	3	4	9
Grand Total	1	4	0	5	1	1	1	3	0	5	0	5	1	5	5	11	24
Apprch %	20	80	0		33.3	33.3	33.3		0	100	0		9.1	45.5	45.5		
Total %	4.2	16.7	0	20.8	4.2	4.2	4.2	12.5	0	20.8	0	20.8	4.2	20.8	20.8	45.8	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**	**3**	3
04:45 PM	0	**1**	0	**1**	**1**	**1**	0	**2**	0	0	0	0	0	0	0	0	3
05:00 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	**3**	0	**3**	0	0	1	1	**4**
Total Volume	0	1	0	1	1	1	1	3	0	3	0	3	1	1	3	5	12
% App. Total	0	100	0		33.3	33.3	33.3		0	100	0		20	20	60		
PHF	.000	.250	.000	.250	.250	.250	.250	.375	.000	.250	.000	.250	.250	.250	.750	.417	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**	**3**
+15 mins.	0	**1**	0	**1**	**1**	**1**	0	**2**	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0	**3**	0	**3**	0	0	1	1
Total Volume	0	1	0	1	1	1	1	3	0	3	0	3	1	1	3	5
% App. Total	0	100	0		33.3	33.3	33.3		0	100	0		20	20	60	
PHF	.000	.250	.000	.250	.250	.250	.250	.375	.000	.250	.000	.250	.250	.250	.750	.417

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

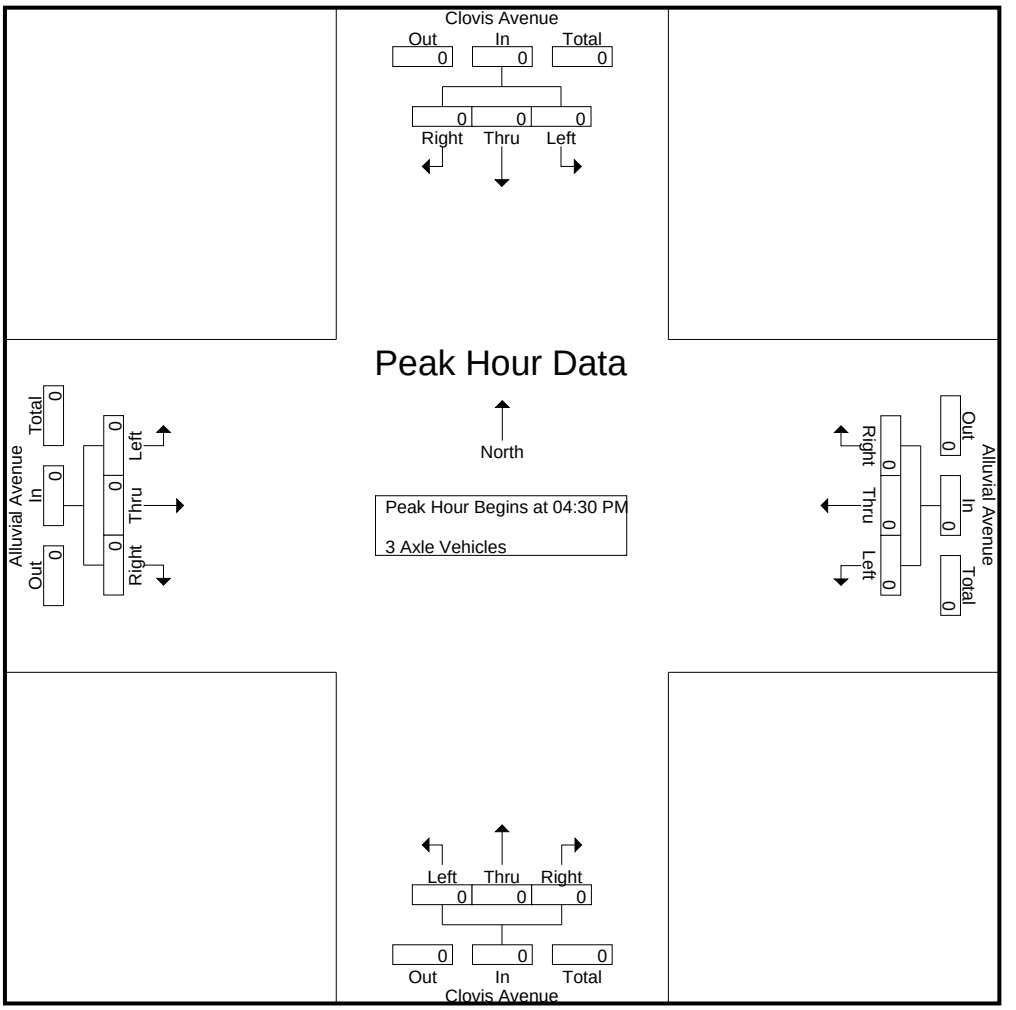
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	0	100		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

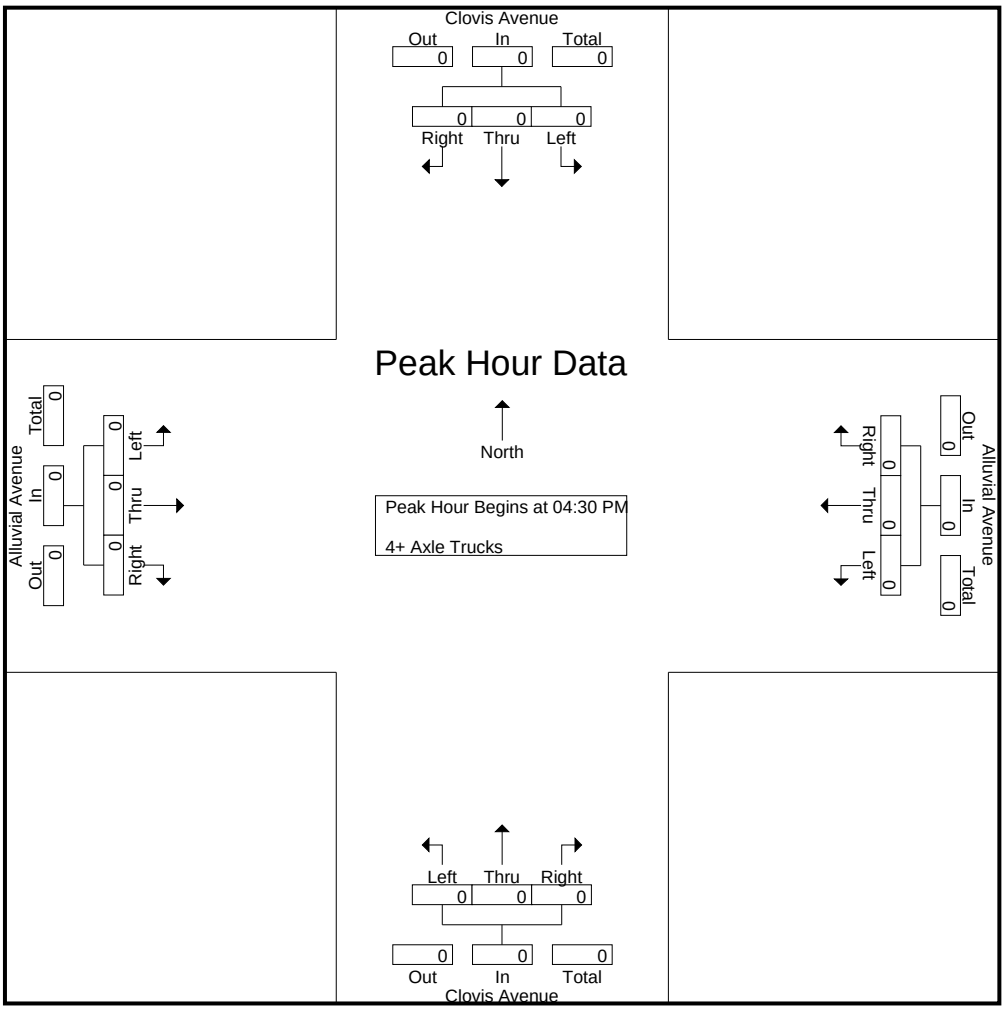
	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Clovis Avenue Southbound				Alluvial Avenue Westbound				Clovis Avenue Northbound				Alluvial Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue
Weather: Clear

File Name : 11_CVS_Clo_All PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Clovis Avenue	East Leg Alluvial Avenue	South Leg Clovis Avenue	West Leg Alluvial Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	2	0	0	0	2
7:15 AM	0	1	1	0	2
7:30 AM	2	0	2	3	7
7:45 AM	7	1	0	6	14
8:00 AM	2	1	4	3	10
8:15 AM	2	1	0	1	4
8:30 AM	1	0	2	2	5
8:45 AM	3	4	3	5	15
TOTAL VOLUMES:	19	8	12	20	59

	North Leg Clovis Avenue	East Leg Alluvial Avenue	South Leg Clovis Avenue	West Leg Alluvial Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	2	0	0	2	4
4:15 PM	1	0	0	0	1
4:30 PM	0	0	1	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	1	2	0	0	3
5:45 PM	1	1	0	0	2
TOTAL VOLUMES:	5	3	1	2	11

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Clovis Avenue
E/W: Alluvial Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Clovis Avenue			Westbound Alluvial Avenue			Northbound Clovis Avenue			Eastbound Alluvial Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	3	0	0	0	0	0	0	1	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	1	0	1	0	0	1	0	4
7:45 AM	0	0	0	0	1	0	0	1	2	0	0	0	4
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	1	1	0	0	1	0	0	2	0	5
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	2	0	0	1	0	1	0	0	1	0	5
TOTAL VOLUMES:	0	0	2	1	7	2	0	5	2	0	4	1	24

	Southbound Clovis Avenue			Westbound Alluvial Avenue			Northbound Clovis Avenue			Eastbound Alluvial Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	0	1	0	1	0	0	4
5:30 PM	0	0	0	0	0	0	0	1	0	0	1	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	1	3	0	1	2	0	0	4	0	1	2	1	15

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

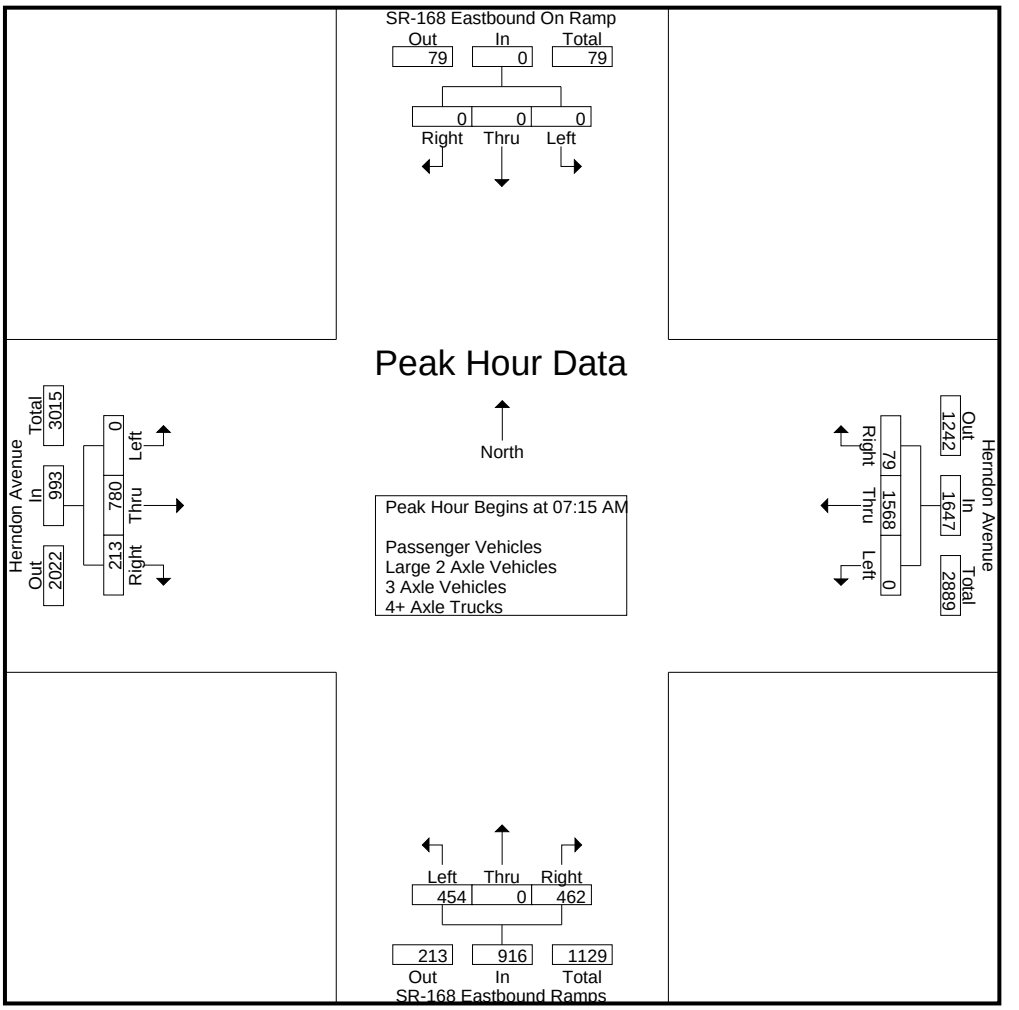
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	318	10	328	81	0	83	164	0	97	24	121	613
07:15 AM	0	0	0	0	0	389	19	408	116	0	99	215	0	147	53	200	823
07:30 AM	0	0	0	0	0	409	27	436	113	0	105	218	0	180	44	224	878
07:45 AM	0	0	0	0	0	421	15	436	137	0	136	273	0	212	65	277	986
Total	0	0	0	0	0	1537	71	1608	447	0	423	870	0	636	186	822	3300
08:00 AM	0	0	0	0	0	349	18	367	88	0	122	210	0	241	51	292	869
08:15 AM	0	0	0	0	0	363	23	386	78	0	107	185	0	189	50	239	810
08:30 AM	0	0	0	0	0	366	17	383	88	0	102	190	0	207	45	252	825
08:45 AM	0	0	0	0	0	302	12	314	79	0	116	195	0	201	47	248	757
Total	0	0	0	0	0	1380	70	1450	333	0	447	780	0	838	193	1031	3261
Grand Total	0	0	0	0	0	2917	141	3058	780	0	870	1650	0	1474	379	1853	6561
Apprch %	0	0	0		0	95.4	4.6		47.3	0	52.7		0	79.5	20.5		
Total %	0	0	0	0	0	44.5	2.1	46.6	11.9	0	13.3	25.1	0	22.5	5.8	28.2	
Passenger Vehicles	0	0	0	0	0	2878	141	3019	749	0	832	1581	0	1441	372	1813	6413
% Passenger Vehicles	0	0	0	0	0	98.7	100	98.7	96	0	95.6	95.8	0	97.8	98.2	97.8	97.7
Large 2 Axle Vehicles	0	0	0	0	0	27	0	27	16	0	27	43	0	29	7	36	106
% Large 2 Axle Vehicles	0	0	0	0	0	0.9	0	0.9	2.1	0	3.1	2.6	0	2	1.8	1.9	1.6
3 Axle Vehicles	0	0	0	0	0	4	0	4	5	0	2	7	0	1	0	1	12
% 3 Axle Vehicles	0	0	0	0	0	0.1	0	0.1	0.6	0	0.2	0.4	0	0.1	0	0.1	0.2
4+ Axle Trucks	0	0	0	0	0	8	0	8	10	0	9	19	0	3	0	3	30
% 4+ Axle Trucks	0	0	0	0	0	0.3	0	0.3	1.3	0	1	1.2	0	0.2	0	0.2	0.5

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	389	19	408	116	0	99	215	0	147	53	200	823
07:30 AM	0	0	0	0	0	409	**27**	**436**	113	0	105	218	0	180	44	224	878
07:45 AM	0	0	0	0	0	**421**	15	436	**137**	0	**136**	**273**	0	212	**65**	277	**986**
08:00 AM	0	0	0	0	0	349	18	367	88	0	122	210	0	**241**	51	**292**	869
Total Volume	0	0	0	0	0	1568	79	1647	454	0	462	916	0	780	213	993	3556
% App. Total	0	0	0		0	95.2	4.8		49.6	0	50.4		0	78.5	21.5		
PHF	.000	.000	.000	.000	.000	.931	.731	.944	.828	.000	.849	.839	.000	.809	.819	.850	.902

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:15 AM				07:45 AM			
+0 mins.	0	0	0	0	0	389	19	408	116	0	99	215	0	212	**65**	277
+15 mins.	0	0	0	0	0	409	**27**	**436**	113	0	105	218	0	**241**	51	**292**
+30 mins.	0	0	0	0	0	**421**	15	436	**137**	0	**136**	**273**	0	189	50	239
+45 mins.	0	0	0	0	0	349	18	367	88	0	122	210	0	207	45	252
Total Volume	0	0	0	0	0	1568	79	1647	454	0	462	916	0	849	211	1060
% App. Total	0	0	0		0	95.2	4.8		49.6	0	50.4		0	80.1	19.9	
PHF	.000	.000	.000	.000	.000	.931	.731	.944	.828	.000	.849	.839	.000	.881	.812	.908

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

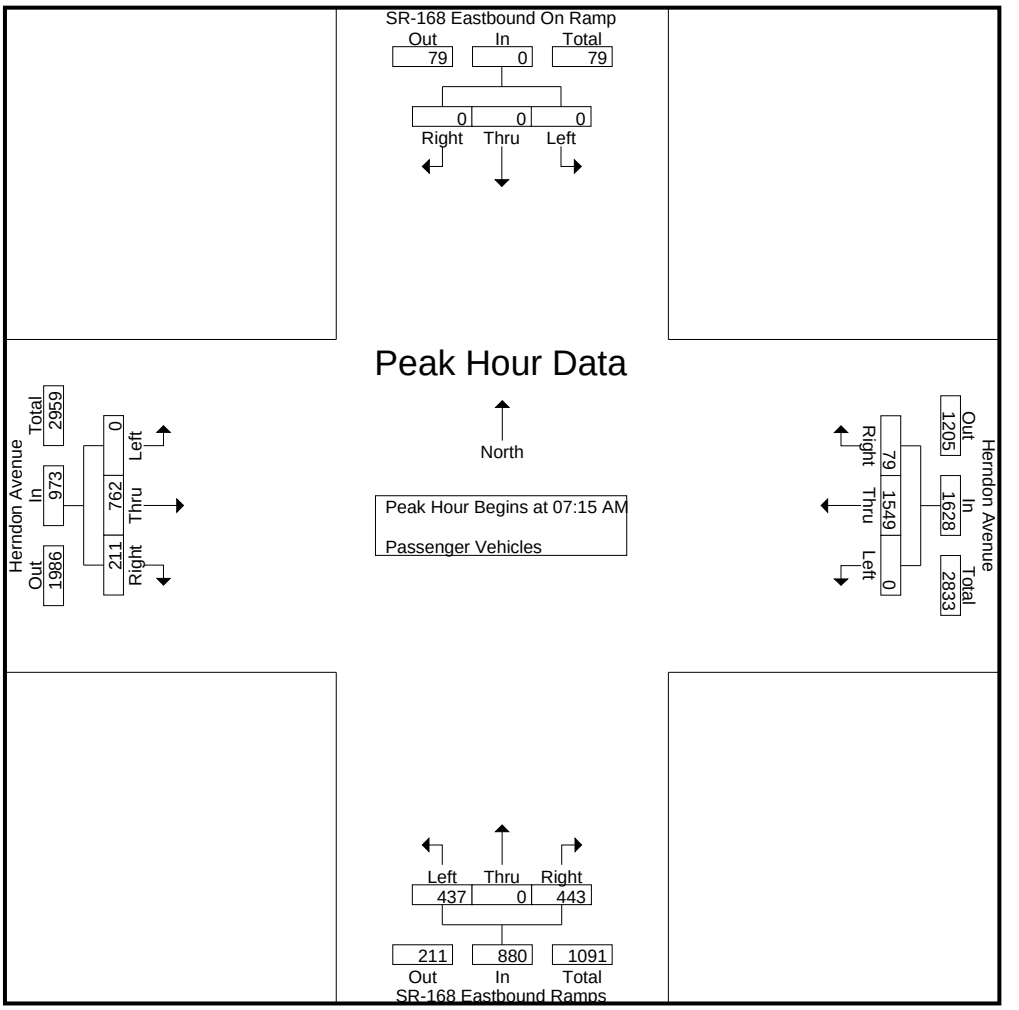
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	314	10	324	80	0	78	158	0	94	24	118	600
07:15 AM	0	0	0	0	0	387	19	406	109	0	93	202	0	145	52	197	805
07:30 AM	0	0	0	0	0	404	27	431	108	0	101	209	0	175	44	219	859
07:45 AM	0	0	0	0	0	416	15	431	135	0	132	267	0	208	64	272	970
Total	0	0	0	0	0	1521	71	1592	432	0	404	836	0	622	184	806	3234
08:00 AM	0	0	0	0	0	342	18	360	85	0	117	202	0	234	51	285	847
08:15 AM	0	0	0	0	0	359	23	382	75	0	105	180	0	184	47	231	793
08:30 AM	0	0	0	0	0	359	17	376	81	0	96	177	0	205	44	249	802
08:45 AM	0	0	0	0	0	297	12	309	76	0	110	186	0	196	46	242	737
Total	0	0	0	0	0	1357	70	1427	317	0	428	745	0	819	188	1007	3179
Grand Total	0	0	0	0	0	2878	141	3019	749	0	832	1581	0	1441	372	1813	6413
Apprch %	0	0	0		0	95.3	4.7		47.4	0	52.6		0	79.5	20.5		
Total %	0	0	0	0	0	44.9	2.2	47.1	11.7	0	13	24.7	0	22.5	5.8	28.3	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	387	19	406	109	0	93	202	0	145	52	197	805
07:30 AM	0	0	0	0	0	404	**27**	**431**	108	0	101	209	0	175	44	219	859
07:45 AM	0	0	0	0	0	**416**	15	431	**135**	0	**132**	**267**	0	208	**64**	272	**970**
08:00 AM	0	0	0	0	0	342	18	360	85	0	117	202	0	**234**	51	**285**	847
Total Volume	0	0	0	0	0	1549	79	1628	437	0	443	880	0	762	211	973	3481
% App. Total	0	0	0		0	95.1	4.9		49.7	0	50.3		0	78.3	21.7		
PHF	.000	.000	.000	.000	.000	.931	.731	.944	.809	.000	.839	.824	.000	.814	.824	.854	.897

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	387	19	406	109	0	93	202	0	145	52	197
+15 mins.	0	0	0	0	0	404	**27**	**431**	108	0	101	209	0	175	44	219
+30 mins.	0	0	0	0	0	**416**	15	431	**135**	0	**132**	**267**	0	208	**64**	272
+45 mins.	0	0	0	0	0	342	18	360	85	0	117	202	0	**234**	51	**285**
Total Volume	0	0	0	0	0	1549	79	1628	437	0	443	880	0	762	211	973
% App. Total	0	0	0		0	95.1	4.9		49.7	0	50.3		0	78.3	21.7	
PHF	.000	.000	.000	.000	.000	.931	.731	.944	.809	.000	.839	.824	.000	.814	.824	.854

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

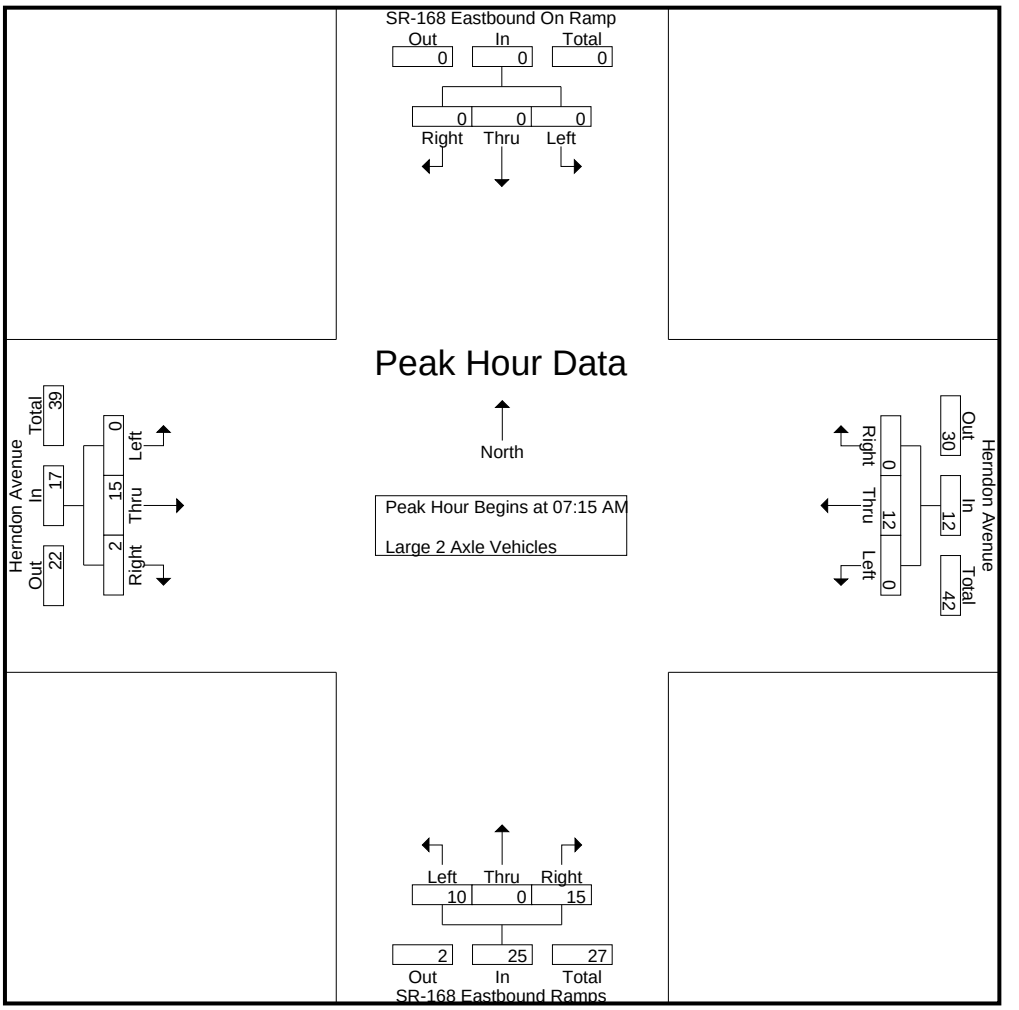
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	3	0	3	0	0	2	2	0	2	0	2	7
07:15 AM	0	0	0	0	0	2	0	2	3	0	3	6	0	2	1	3	11
07:30 AM	0	0	0	0	0	3	0	3	2	0	4	6	0	4	0	4	13
07:45 AM	0	0	0	0	0	1	0	1	2	0	3	5	0	3	1	4	10
Total	0	0	0	0	0	9	0	9	7	0	12	19	0	11	2	13	41
08:00 AM	0	0	0	0	0	6	0	6	3	0	5	8	0	6	0	6	20
08:15 AM	0	0	0	0	0	4	0	4	3	0	0	3	0	5	3	8	15
08:30 AM	0	0	0	0	0	3	0	3	2	0	5	7	0	2	1	3	13
08:45 AM	0	0	0	0	0	5	0	5	1	0	5	6	0	5	1	6	17
Total	0	0	0	0	0	18	0	18	9	0	15	24	0	18	5	23	65
Grand Total	0	0	0	0	0	27	0	27	16	0	27	43	0	29	7	36	106
Apprch %	0	0	0		0	100	0		37.2	0	62.8		0	80.6	19.4		
Total %	0	0	0	0	0	25.5	0	25.5	15.1	0	25.5	40.6	0	27.4	6.6	34	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	2	0	2	**3**	0	3	6	0	2	**1**	3	11
07:30 AM	0	0	0	0	0	3	0	3	2	0	4	6	0	4	0	4	13
07:45 AM	0	0	0	0	0	1	0	1	2	0	3	5	0	3	1	4	10
08:00 AM	0	0	0	0	0	**6**	0	**6**	3	0	**5**	**8**	0	**6**	0	**6**	**20**
Total Volume	0	0	0	0	0	12	0	12	10	0	15	25	0	15	2	17	54
% App. Total	0	0	0		0	100	0		40	0	60		0	88.2	11.8		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.833	.000	.750	.781	.000	.625	.500	.708	.675

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	2	0	2	**3**	0	3	6	0	2	**1**	3
+15 mins.	0	0	0	0	0	3	0	3	2	0	4	6	0	4	0	4
+30 mins.	0	0	0	0	0	1	0	1	2	0	3	5	0	3	1	4
+45 mins.	0	0	0	0	0	**6**	0	**6**	3	0	**5**	**8**	0	**6**	0	**6**
Total Volume	0	0	0	0	0	12	0	12	10	0	15	25	0	15	2	17
% App. Total	0	0	0		0	100	0		40	0	60		0	88.2	11.8	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.833	.000	.750	.781	.000	.625	.500	.708

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

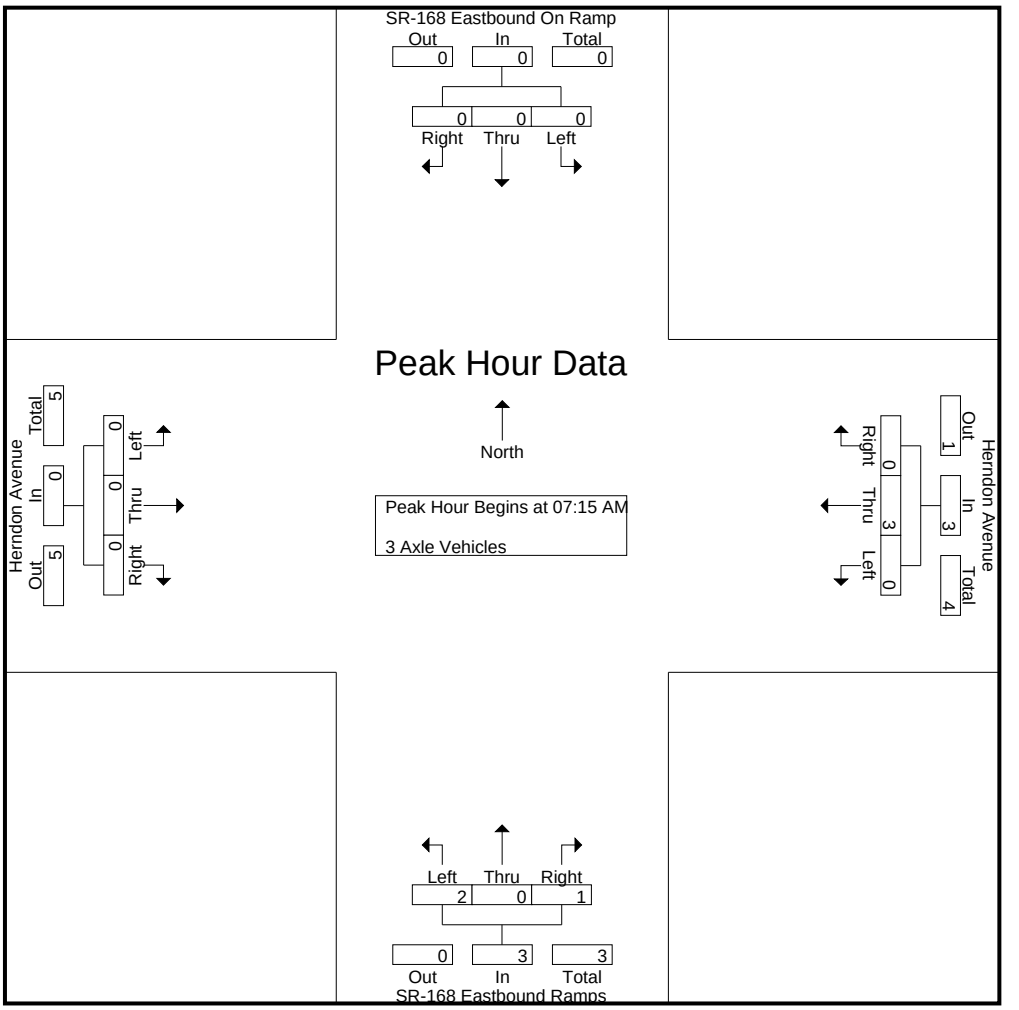
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3
Total	0	0	0	0	0	3	0	3	2	0	1	3	0	1	0	1	7
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2
Total	0	0	0	0	0	1	0	1	3	0	1	4	0	0	0	0	5
Grand Total	0	0	0	0	0	4	0	4	5	0	2	7	0	1	0	1	12
Apprch %	0	0	0		0	100	0		71.4	0	28.6		0	100	0		
Total %	0	0	0	0	0	33.3	0	33.3	41.7	0	16.7	58.3	0	8.3	0	8.3	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	**2**	0	**2**	0	0	**1**	1	0	0	0	0	**3**
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	3	0	3	2	0	1	3	0	0	0	0	6
% App. Total	0	0	0		0	100	0		66.7	0	33.3		0	0	0		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.500	.000	.250	.750	.000	.000	.000	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	**2**	0	**2**	0	0	**1**	1	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	3	2	0	1	3	0	0	0	0
% App. Total	0	0	0		0	100	0		66.7	0	33.3		0	0	0	
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.500	.000	.250	.750	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

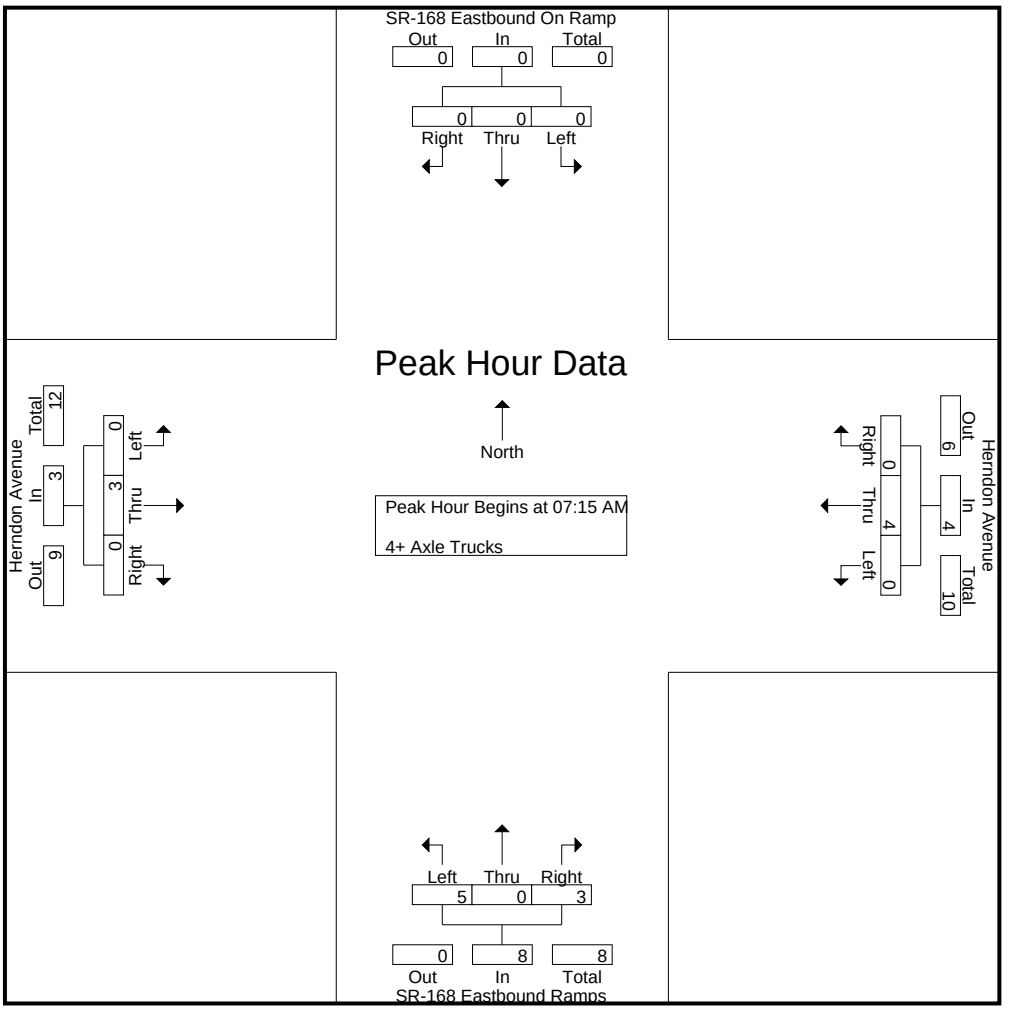
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	0	3	4	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	3	0	3	6	0	0	0	0	6
07:30 AM	0	0	0	0	0	2	0	2	2	0	0	2	0	1	0	1	5
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	4	0	4	6	0	6	12	0	2	0	2	18
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2
08:30 AM	0	0	0	0	0	4	0	4	3	0	1	4	0	0	0	0	8
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	4	0	4	4	0	3	7	0	1	0	1	12
Grand Total	0	0	0	0	0	8	0	8	10	0	9	19	0	3	0	3	30
Apprch %	0	0	0		0	100	0		52.6	0	47.4		0	100	0		
Total %	0	0	0	0	0	26.7	0	26.7	33.3	0	30	63.3	0	10	0	10	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	**3**	0	**3**	**6**	0	0	0	0	**6**
07:30 AM	0	0	0	0	0	**2**	0	**2**	2	0	0	2	0	**1**	0	**1**	5
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	4	0	4	5	0	3	8	0	3	0	3	15
% App. Total	0	0	0		0	100	0		62.5	0	37.5		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.417	.000	.250	.333	.000	.750	.000	.750	.625

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	**3**	0	**3**	**6**	0	0	0	0
+15 mins.	0	0	0	0	0	**2**	0	**2**	2	0	0	2	0	**1**	0	**1**
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	4	0	4	5	0	3	8	0	3	0	3
% App. Total	0	0	0		0	100	0		62.5	0	37.5		0	100	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.417	.000	.250	.333	.000	.750	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

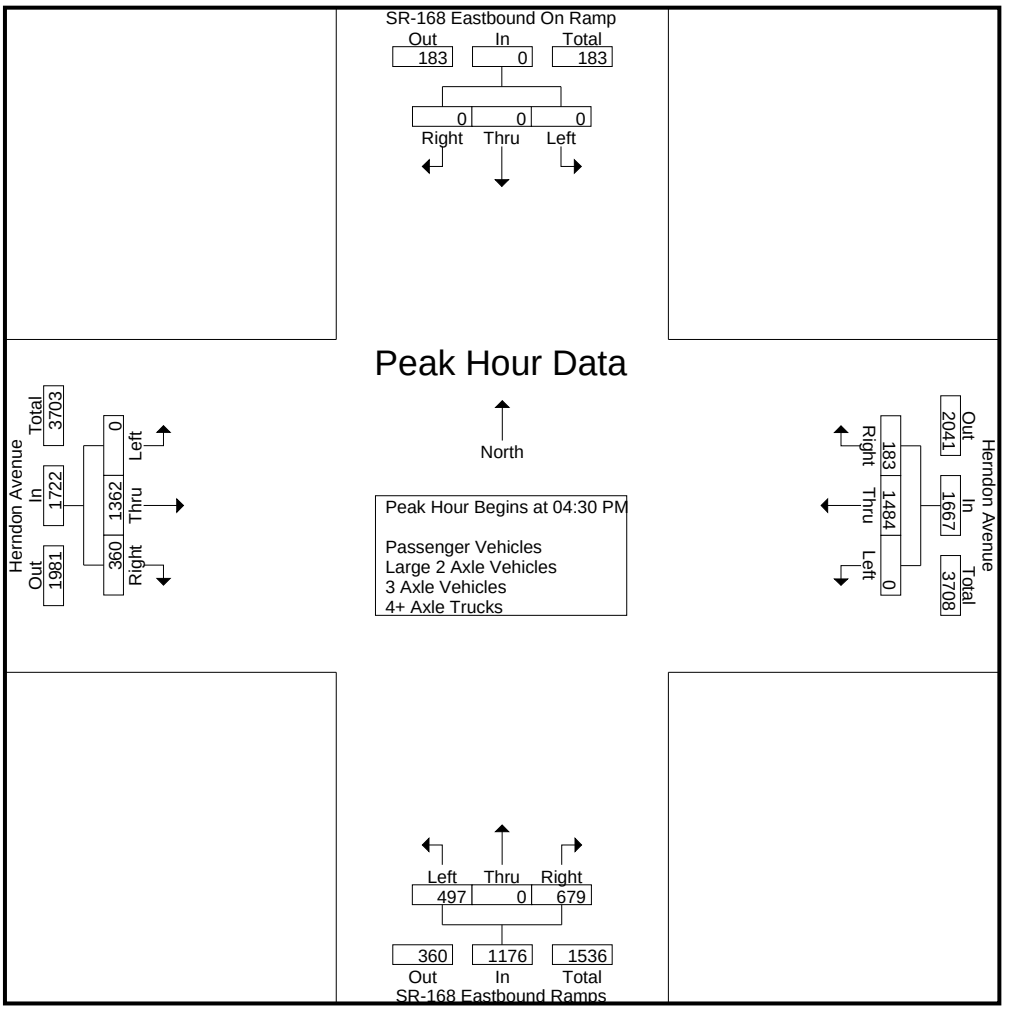
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	337	30	367	104	0	132	236	0	255	72	327	930
04:15 PM	0	0	0	0	0	358	45	403	114	0	185	299	0	358	87	445	1147
04:30 PM	0	0	0	0	0	385	40	425	114	0	142	256	0	355	81	436	1117
04:45 PM	0	0	0	0	0	344	44	388	127	0	195	322	0	340	104	444	1154
Total	0	0	0	0	0	1424	159	1583	459	0	654	1113	0	1308	344	1652	4348
05:00 PM	0	0	0	0	0	390	48	438	102	0	174	276	0	334	74	408	1122
05:15 PM	0	0	0	0	0	365	51	416	154	0	168	322	0	333	101	434	1172
05:30 PM	0	0	0	0	0	325	47	372	120	1	176	297	0	325	114	439	1108
05:45 PM	0	0	0	0	0	321	41	362	96	0	162	258	0	278	90	368	988
Total	0	0	0	0	0	1401	187	1588	472	1	680	1153	0	1270	379	1649	4390
Grand Total	0	0	0	0	0	2825	346	3171	931	1	1334	2266	0	2578	723	3301	8738
Apprch %	0	0	0		0	89.1	10.9		41.1	0	58.9		0	78.1	21.9		
Total %	0	0	0	0	0	32.3	4	36.3	10.7	0	15.3	25.9	0	29.5	8.3	37.8	
Passenger Vehicles	0	0	0	0	0	2802	343	3145	918	1	1314	2233	0	2567	718	3285	8663
% Passenger Vehicles	0	0	0	0	0	99.2	99.1	99.2	98.6	100	98.5	98.5	0	99.6	99.3	99.5	99.1
Large 2 Axle Vehicles	0	0	0	0	0	18	3	21	10	0	17	27	0	11	2	13	61
% Large 2 Axle Vehicles	0	0	0	0	0	0.6	0.9	0.7	1.1	0	1.3	1.2	0	0.4	0.3	0.4	0.7
3 Axle Vehicles	0	0	0	0	0	2	0	2	0	0	1	1	0	0	3	3	6
% 3 Axle Vehicles	0	0	0	0	0	0.1	0	0.1	0	0	0.1	0	0	0	0.4	0.1	0.1
4+ Axle Trucks	0	0	0	0	0	3	0	3	3	0	2	5	0	0	0	0	8
% 4+ Axle Trucks	0	0	0	0	0	0.1	0	0.1	0.3	0	0.1	0.2	0	0	0	0	0.1

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	385	40	425	114	0	142	256	0	**355**	81	436	1117
04:45 PM	0	0	0	0	0	344	44	388	127	0	**195**	**322**	0	340	**104**	**444**	1154
05:00 PM	0	0	0	0	0	**390**	48	**438**	102	0	174	276	0	334	74	408	1122
05:15 PM	0	0	0	0	0	365	**51**	416	**154**	0	168	322	0	333	101	434	**1172**
Total Volume	0	0	0	0	0	1484	183	1667	497	0	679	1176	0	1362	360	1722	4565
% App. Total	0	0	0		0	89	11		42.3	0	57.7		0	79.1	20.9		
PHF	.000	.000	.000	.000	.000	.951	.897	.951	.807	.000	.871	.913	.000	.959	.865	.970	.974

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:45 PM				04:15 PM			
+0 mins.	0	0	0	0	0	385	40	425	127	0	**195**	**322**	0	**358**	87	**445**
+15 mins.	0	0	0	0	0	344	44	388	102	0	174	276	0	355	81	436
+30 mins.	0	0	0	0	0	**390**	48	**438**	**154**	0	168	322	0	340	**104**	444
+45 mins.	0	0	0	0	0	365	**51**	416	120	**1**	176	297	0	334	74	408
Total Volume	0	0	0	0	0	1484	183	1667	503	1	713	1217	0	1387	346	1733
% App. Total	0	0	0		0	89	11		41.3	0.1	58.6		0	80	20	
PHF	.000	.000	.000	.000	.000	.951	.897	.951	.817	.250	.914	.945	.000	.969	.832	.974

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

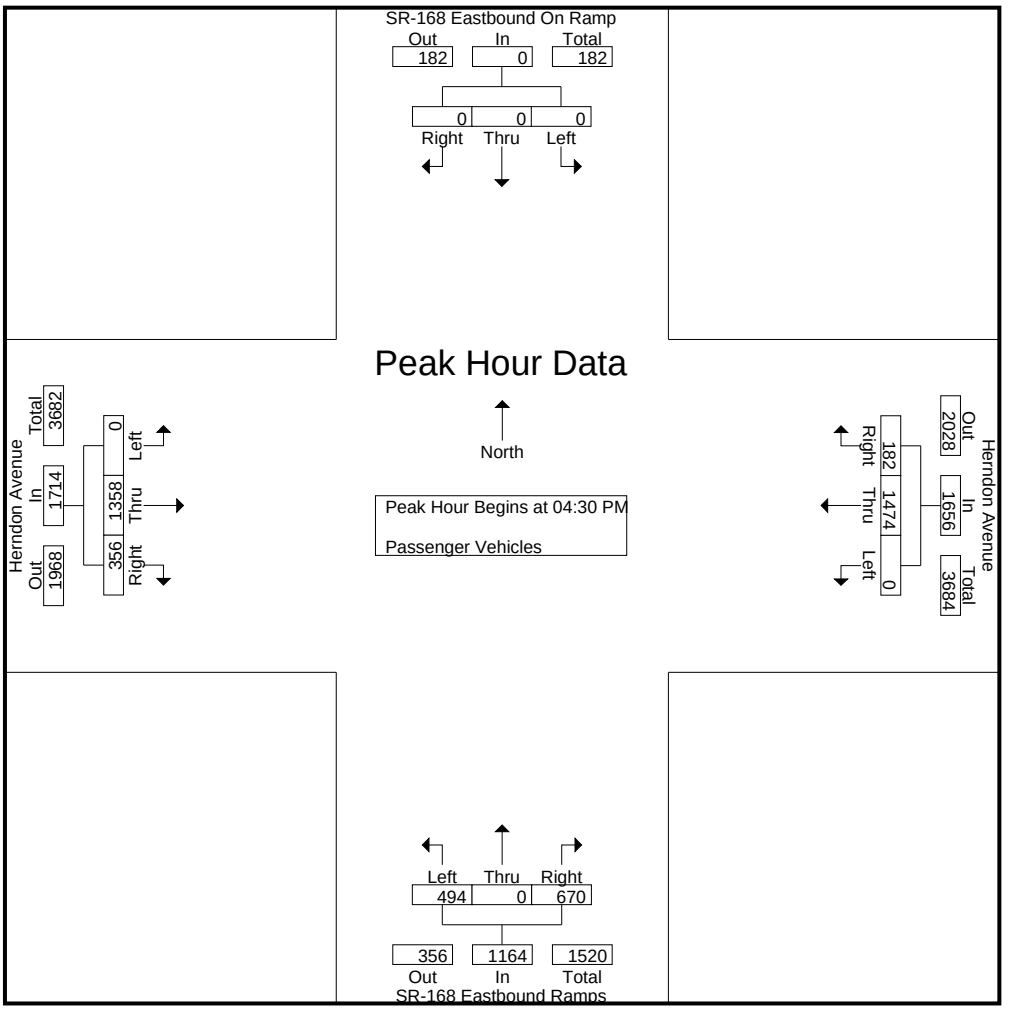
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	332	30	362	101	0	127	228	0	253	71	324	914
04:15 PM	0	0	0	0	0	355	43	398	110	0	182	292	0	356	87	443	1133
04:30 PM	0	0	0	0	0	380	40	420	114	0	139	253	0	353	81	434	1107
04:45 PM	0	0	0	0	0	342	44	386	125	0	194	319	0	339	101	440	1145
Total	0	0	0	0	0	1409	157	1566	450	0	642	1092	0	1301	340	1641	4299
05:00 PM	0	0	0	0	0	389	47	436	102	0	171	273	0	334	74	408	1117
05:15 PM	0	0	0	0	0	363	51	414	153	0	166	319	0	332	100	432	1165
05:30 PM	0	0	0	0	0	323	47	370	119	1	174	294	0	322	114	436	1100
05:45 PM	0	0	0	0	0	318	41	359	94	0	161	255	0	278	90	368	982
Total	0	0	0	0	0	1393	186	1579	468	1	672	1141	0	1266	378	1644	4364
Grand Total	0	0	0	0	0	2802	343	3145	918	1	1314	2233	0	2567	718	3285	8663
Apprch %	0	0	0		0	89.1	10.9		41.1	0	58.8		0	78.1	21.9		
Total %	0	0	0	0	0	32.3	4	36.3	10.6	0	15.2	25.8	0	29.6	8.3	37.9	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	380	40	420	114	0	139	253	0	**353**	81	434	1107
04:45 PM	0	0	0	0	0	342	44	386	125	0	**194**	**319**	0	339	**101**	**440**	1145
05:00 PM	0	0	0	0	0	**389**	47	**436**	102	0	171	273	0	334	74	408	1117
05:15 PM	0	0	0	0	0	363	**51**	414	**153**	0	166	319	0	332	100	432	**1165**
Total Volume	0	0	0	0	0	1474	182	1656	494	0	670	1164	0	1358	356	1714	4534
% App. Total	0	0	0		0	89	11		42.4	0	57.6		0	79.2	20.8		
PHF	.000	.000	.000	.000	.000	.947	.892	.950	.807	.000	.863	.912	.000	.962	.881	.974	.973

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	380	40	420	114	0	139	253	0	**353**	81	434
+15 mins.	0	0	0	0	0	342	44	386	125	0	**194**	**319**	0	339	**101**	**440**
+30 mins.	0	0	0	0	0	**389**	47	**436**	102	0	171	273	0	334	74	408
+45 mins.	0	0	0	0	0	363	**51**	414	**153**	0	166	319	0	332	100	432
Total Volume	0	0	0	0	0	1474	182	1656	494	0	670	1164	0	1358	356	1714
% App. Total	0	0	0		0	89	11		42.4	0	57.6		0	79.2	20.8	
PHF	.000	.000	.000	.000	.000	.947	.892	.950	.807	.000	.863	.912	.000	.962	.881	.974

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

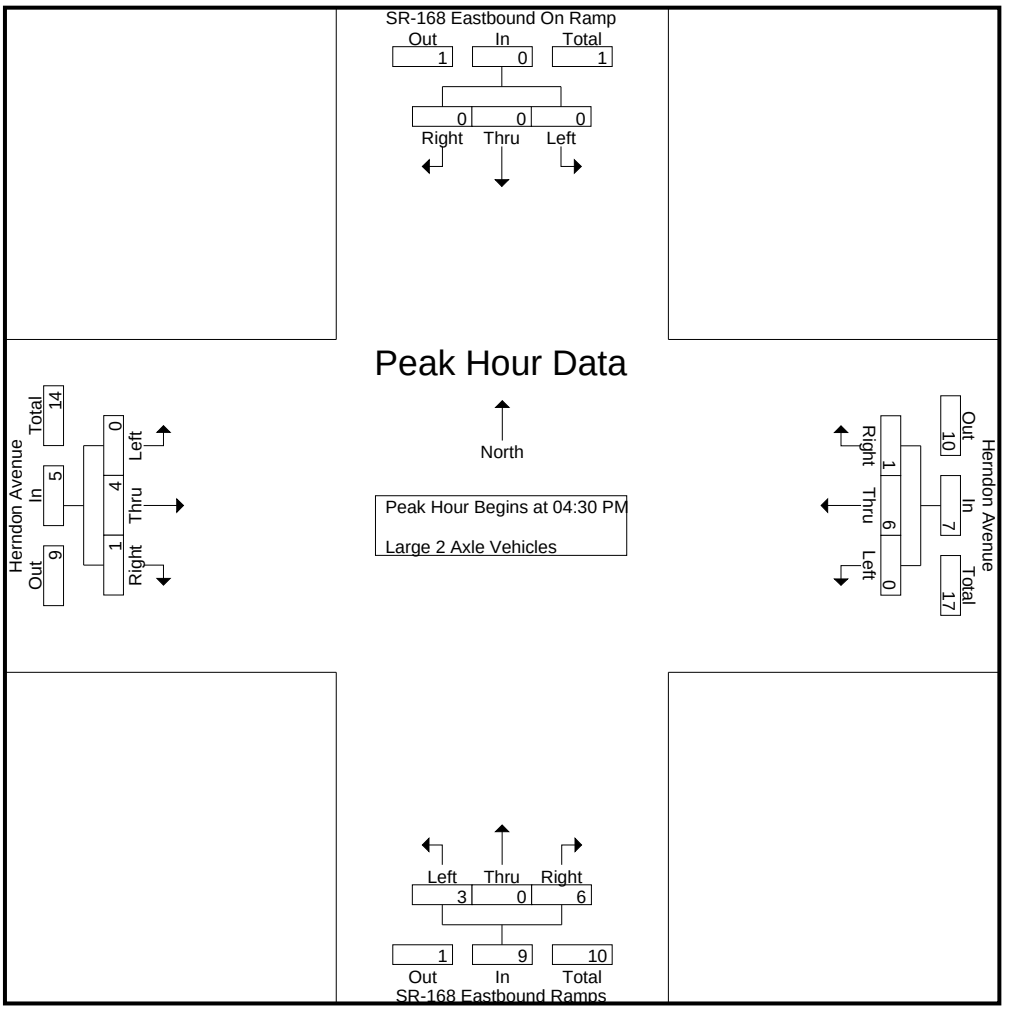
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	4	0	4	2	0	5	7	0	2	1	3	14
04:15 PM	0	0	0	0	0	3	2	5	3	0	3	6	0	2	0	2	13
04:30 PM	0	0	0	0	0	3	0	3	0	0	1	1	0	2	0	2	6
04:45 PM	0	0	0	0	0	1	0	1	2	0	1	3	0	1	0	1	5
Total	0	0	0	0	0	11	2	13	7	0	10	17	0	7	1	8	38
05:00 PM	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	2	0	2	1	0	2	3	0	1	1	2	7
05:30 PM	0	0	0	0	0	2	0	2	1	0	2	3	0	3	0	3	8
05:45 PM	0	0	0	0	0	3	0	3	1	0	1	2	0	0	0	0	5
Total	0	0	0	0	0	7	1	8	3	0	7	10	0	4	1	5	23
Grand Total	0	0	0	0	0	18	3	21	10	0	17	27	0	11	2	13	61
Apprch %	0	0	0		0	85.7	14.3		37	0	63		0	84.6	15.4		
Total %	0	0	0	0	0	29.5	4.9	34.4	16.4	0	27.9	44.3	0	18	3.3	21.3	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**3**	0	**3**	0	0	1	1	0	**2**	0	**2**	6
04:45 PM	0	0	0	0	0	1	0	1	**2**	0	1	**3**	0	1	0	1	5
05:00 PM	0	0	0	0	0	0	**1**	1	0	0	**2**	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	2	0	2	1	0	2	3	0	1	**1**	2	**7**
Total Volume	0	0	0	0	0	6	1	7	3	0	6	9	0	4	1	5	21
% App. Total	0	0	0		0	85.7	14.3		33.3	0	66.7		0	80	20		
PHF	.000	.000	.000	.000	.000	.500	.250	.583	.375	.000	.750	.750	.000	.500	.250	.625	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	**3**	0	**3**	0	0	1	1	0	**2**	0	**2**
+15 mins.	0	0	0	0	0	1	0	1	**2**	0	1	**3**	0	1	0	1
+30 mins.	0	0	0	0	0	0	**1**	1	0	0	**2**	2	0	0	0	0
+45 mins.	0	0	0	0	0	2	0	2	1	0	2	3	0	1	**1**	2
Total Volume	0	0	0	0	0	6	1	7	3	0	6	9	0	4	1	5
% App. Total	0	0	0		0	85.7	14.3		33.3	0	66.7		0	80	20	
PHF	.000	.000	.000	.000	.000	.500	.250	.583	.375	.000	.750	.750	.000	.500	.250	.625

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

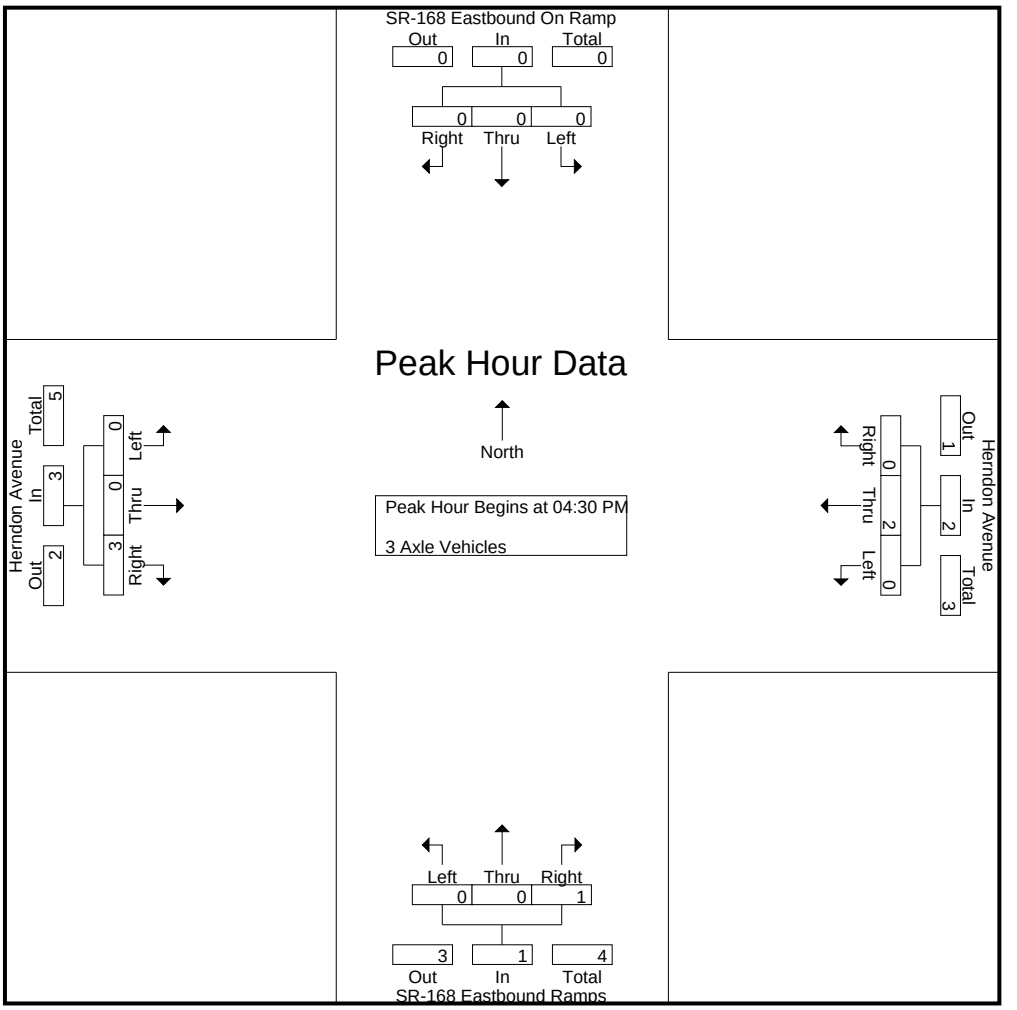
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
Total	0	0	0	0	0	2	0	2	0	0	1	1	0	0	3	3	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	2	0	2	0	0	1	1	0	0	3	3	6
Apprch %	0	0	0		0	100	0		0	0	100		0	0	100		
Total %	0	0	0	0	0	33.3	0	33.3	0	0	16.7	16.7	0	0	50	50	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**2**	0	**2**	0	0	**1**	**1**	0	0	0	0	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	1	1	0	0	3	3	6
% App. Total	0	0	0		0	100	0		0	0	100		0	0	100		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.250	.250	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	**1**	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**3**
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	1	1	0	0	3	3
% App. Total	0	0	0		0	100	0		0	0	100		0	0	100	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.250	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

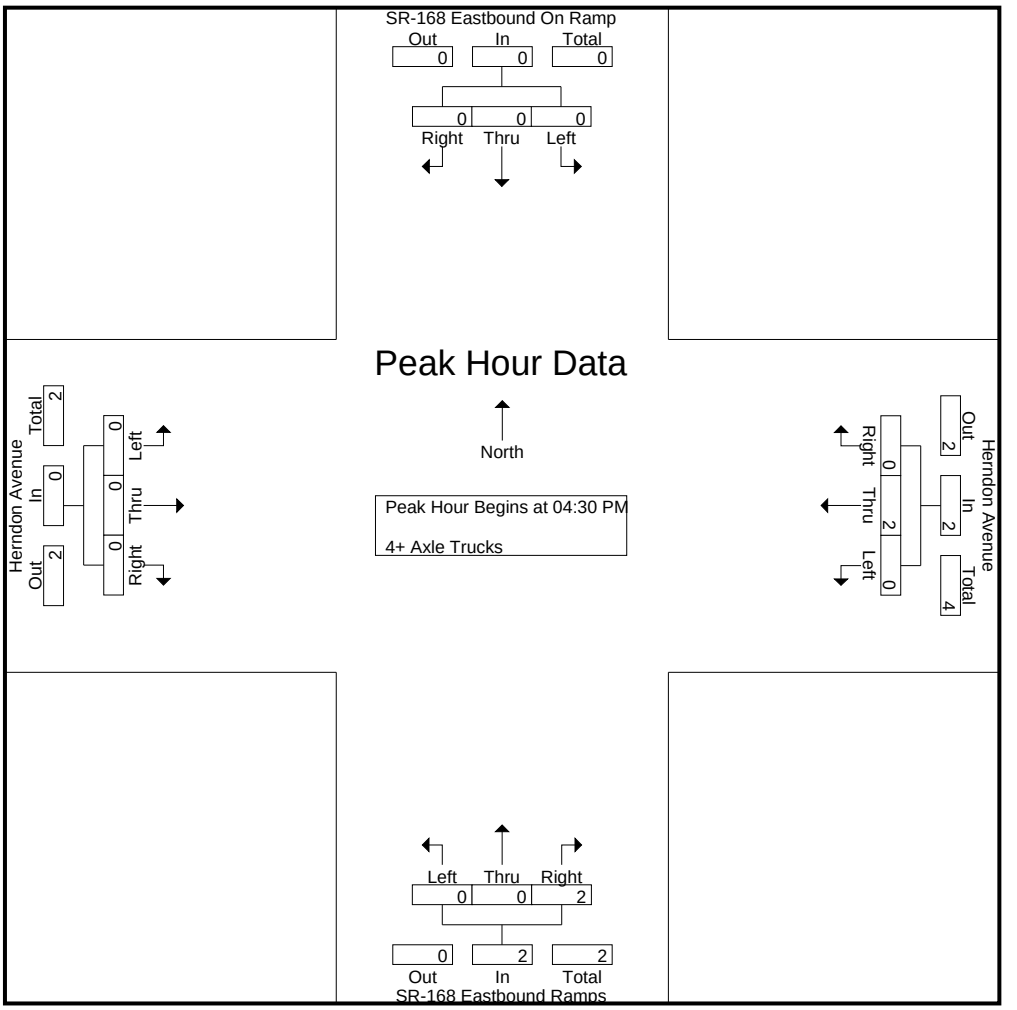
	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	2	0	1	3	0	0	0	0	5
05:00 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	1	0	1	2	0	0	0	0	3
Grand Total	0	0	0	0	0	3	0	3	3	0	2	5	0	0	0	0	8
Apprch %	0	0	0		0	100	0		60	0	40		0	0	0		
Total %	0	0	0	0	0	37.5	0	37.5	37.5	0	25	62.5	0	0	0	0	

	SR-168 Eastbound On Ramp Southbound				Herndon Avenue Westbound				SR-168 Eastbound Ramps Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1
04:45 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	**2**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0	4
% App. Total	0	0	0		0	100	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.500	.500	.000	.000	.000	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Eastbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 13_CVS_168E_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0
% App. Total	0	0	0		0	100	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.500	.500	.000	.000	.000	.000

Location: Clovis
N/S: SR-168 EB Ramps
E/W: Herndon Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg SR-168 EB Ramps	East Leg Herndon Avenue	South Leg SR-168 EB Ramps	West Leg Herndon Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg SR-168 EB Ramps	East Leg Herndon Avenue	South Leg SR-168 EB Ramps	West Leg Herndon Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: SR-168 EB Ramps
E/W: Herndon Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound SR-168 EB Ramps			Westbound Herndon Avenue			Northbound SR-168 EB Ramps			Eastbound Herndon Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

	Southbound SR-168 EB Ramps			Westbound Herndon Avenue			Northbound SR-168 EB Ramps			Eastbound Herndon Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

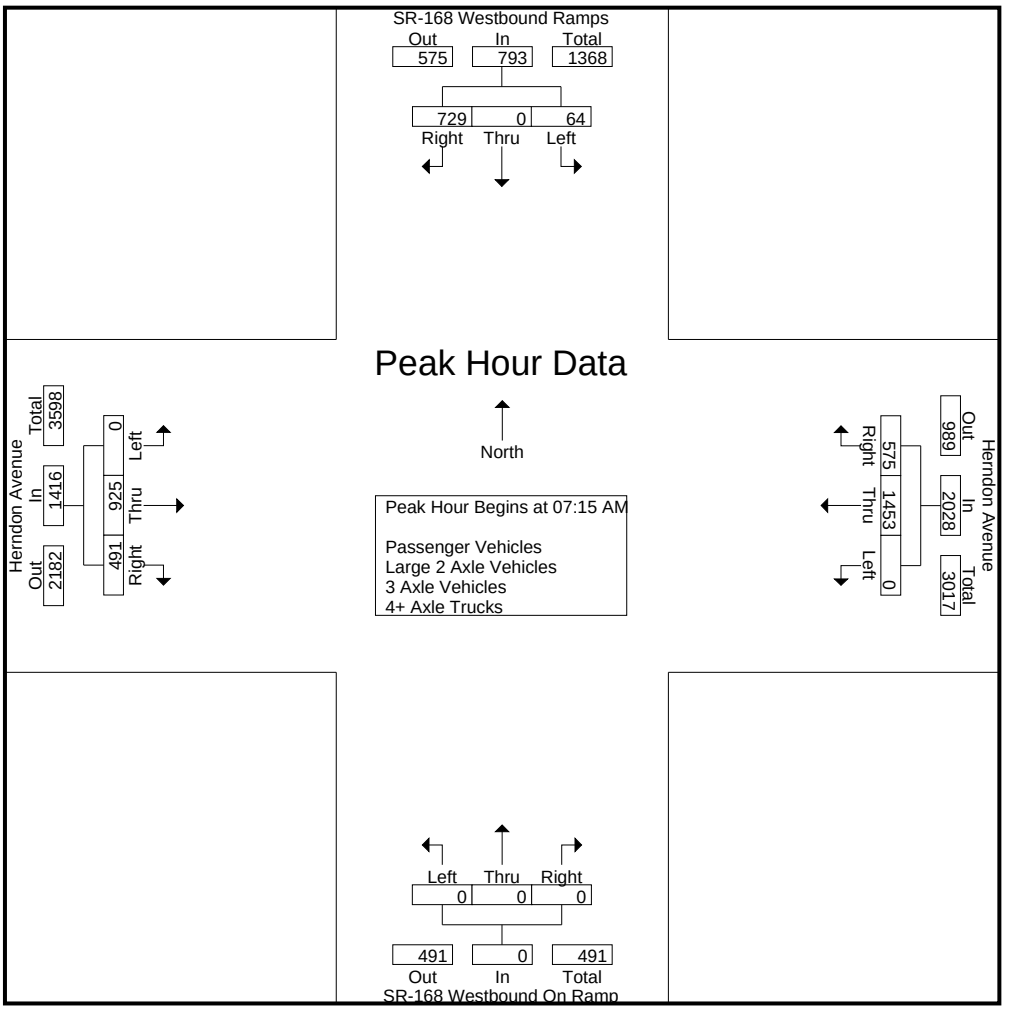
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	10	0	112	122	0	281	118	399	0	0	0	0	0	111	101	212	733
07:15 AM	20	0	170	190	0	364	138	502	0	0	0	0	0	178	111	289	981
07:30 AM	14	0	215	229	0	387	140	527	0	0	0	0	0	220	148	368	1124
07:45 AM	14	0	177	191	0	392	163	555	0	0	0	0	0	253	128	381	1127
Total	58	0	674	732	0	1424	559	1983	0	0	0	0	0	762	488	1250	3965
08:00 AM	16	0	167	183	0	310	134	444	0	0	0	0	0	274	104	378	1005
08:15 AM	12	1	157	170	0	329	107	436	0	0	0	0	0	223	99	322	928
08:30 AM	14	0	121	135	0	330	126	456	0	0	0	0	0	235	72	307	898
08:45 AM	23	0	139	162	0	279	104	383	0	0	0	0	0	219	75	294	839
Total	65	1	584	650	0	1248	471	1719	0	0	0	0	0	951	350	1301	3670
Grand Total	123	1	1258	1382	0	2672	1030	3702	0	0	0	0	0	1713	838	2551	7635
Apprch %	8.9	0.1	91		0	72.2	27.8		0	0	0		0	67.2	32.8		
Total %	1.6	0	16.5	18.1	0	35	13.5	48.5	0	0	0	0	0	22.4	11	33.4	
Passenger Vehicles	122	1	1250	1373	0	2626	1009	3635	0	0	0	0	0	1680	816	2496	7504
% Passenger Vehicles	99.2	100	99.4	99.3	0	98.3	98	98.2	0	0	0	0	0	98.1	97.4	97.8	98.3
Large 2 Axle Vehicles	1	0	8	9	0	28	14	42	0	0	0	0	0	29	13	42	93
% Large 2 Axle Vehicles	0.8	0	0.6	0.7	0	1	1.4	1.1	0	0	0	0	0	1.7	1.6	1.6	1.2
3 Axle Vehicles	0	0	0	0	0	6	2	8	0	0	0	0	0	1	2	3	11
% 3 Axle Vehicles	0	0	0	0	0	0.2	0.2	0.2	0	0	0	0	0	0.1	0.2	0.1	0.1
4+ Axle Trucks	0	0	0	0	0	12	5	17	0	0	0	0	0	3	7	10	27
% 4+ Axle Trucks	0	0	0	0	0	0.4	0.5	0.5	0	0	0	0	0	0.2	0.8	0.4	0.4

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**20**	0	170	190	0	364	138	502	0	0	0	0	0	178	111	289	981
07:30 AM	14	0	**215**	**229**	0	387	140	527	0	0	0	0	0	220	**148**	368	1124
07:45 AM	14	0	177	191	0	**392**	**163**	**555**	0	0	0	0	0	253	128	**381**	**1127**
08:00 AM	16	0	167	183	0	310	134	444	0	0	0	0	0	**274**	104	378	1005
Total Volume	64	0	729	793	0	1453	575	2028	0	0	0	0	0	925	491	1416	4237
% App. Total	8.1	0	91.9		0	71.6	28.4		0	0	0		0	65.3	34.7		
PHF	.800	.000	.848	.866	.000	.927	.882	.914	.000	.000	.000	.000	.000	.844	.829	.929	.940

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:00 AM				07:30 AM			
+0 mins.	**20**	0	170	190	0	364	138	502	0	0	0	0	0	220	**148**	368
+15 mins.	14	0	**215**	**229**	0	387	140	527	0	0	0	0	0	253	128	**381**
+30 mins.	14	0	177	191	0	**392**	**163**	**555**	0	0	0	0	0	**274**	104	378
+45 mins.	16	0	167	183	0	310	134	444	0	0	0	0	0	223	99	322
Total Volume	64	0	729	793	0	1453	575	2028	0	0	0	0	0	970	479	1449
% App. Total	8.1	0	91.9		0	71.6	28.4		0	0	0		0	66.9	33.1	
PHF	.800	.000	.848	.866	.000	.927	.882	.914	.000	.000	.000	.000	.000	.885	.809	.951

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

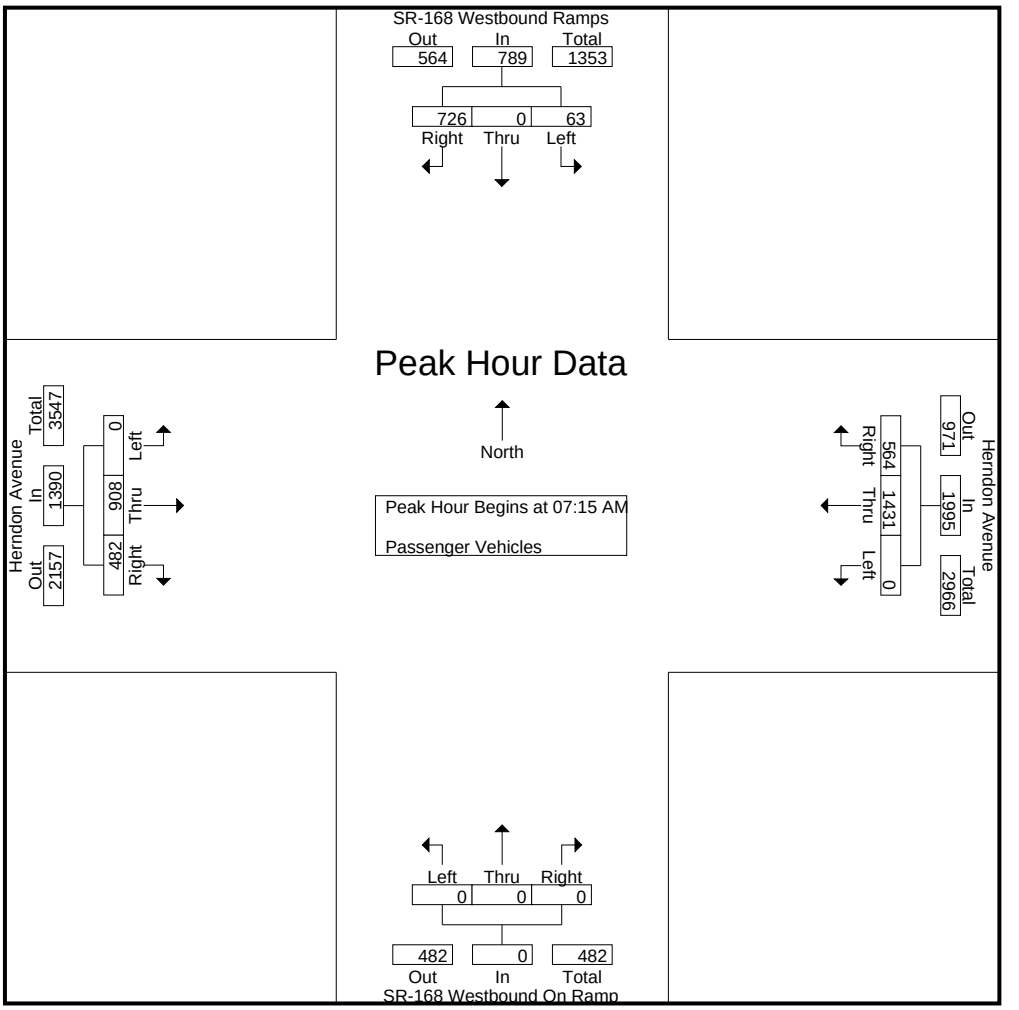
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	10	0	111	121	0	278	117	395	0	0	0	0	0	109	98	207	723
07:15 AM	19	0	169	188	0	361	136	497	0	0	0	0	0	176	110	286	971
07:30 AM	14	0	214	228	0	374	140	514	0	0	0	0	0	214	145	359	1101
07:45 AM	14	0	176	190	0	391	158	549	0	0	0	0	0	250	125	375	1114
Total	57	0	670	727	0	1404	551	1955	0	0	0	0	0	749	478	1227	3909
08:00 AM	16	0	167	183	0	305	130	435	0	0	0	0	0	268	102	370	988
08:15 AM	12	1	155	168	0	324	105	429	0	0	0	0	0	217	91	308	905
08:30 AM	14	0	120	134	0	320	122	442	0	0	0	0	0	232	71	303	879
08:45 AM	23	0	138	161	0	273	101	374	0	0	0	0	0	214	74	288	823
Total	65	1	580	646	0	1222	458	1680	0	0	0	0	0	931	338	1269	3595
Grand Total	122	1	1250	1373	0	2626	1009	3635	0	0	0	0	0	1680	816	2496	7504
Apprch %	8.9	0.1	91		0	72.2	27.8		0	0	0		0	67.3	32.7		
Total %	1.6	0	16.7	18.3	0	35	13.4	48.4	0	0	0	0	0	22.4	10.9	33.3	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**19**	0	169	188	0	361	136	497	0	0	0	0	0	176	110	286	971
07:30 AM	14	0	**214**	**228**	0	374	140	514	0	0	0	0	0	214	**145**	359	1101
07:45 AM	14	0	176	190	0	**391**	**158**	**549**	0	0	0	0	0	250	125	**375**	**1114**
08:00 AM	16	0	167	183	0	305	130	435	0	0	0	0	0	**268**	102	370	988
Total Volume	63	0	726	789	0	1431	564	1995	0	0	0	0	0	908	482	1390	4174
% App. Total	8	0	92		0	71.7	28.3		0	0	0		0	65.3	34.7		
PHF	.829	.000	.848	.865	.000	.915	.892	.908	.000	.000	.000	.000	.000	.847	.831	.927	.937

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	**19**	0	169	188	0	361	136	497	0	0	0	0	0	176	110	286
+15 mins.	14	0	**214**	**228**	0	374	140	514	0	0	0	0	0	214	**145**	359
+30 mins.	14	0	176	190	0	**391**	**158**	**549**	0	0	0	0	0	250	125	**375**
+45 mins.	16	0	167	183	0	305	130	435	0	0	0	0	0	**268**	102	370
Total Volume	63	0	726	789	0	1431	564	1995	0	0	0	0	0	908	482	1390
% App. Total	8	0	92		0	71.7	28.3		0	0	0		0	65.3	34.7	
PHF	.829	.000	.848	.865	.000	.915	.892	.908	.000	.000	.000	.000	.000	.847	.831	.927

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

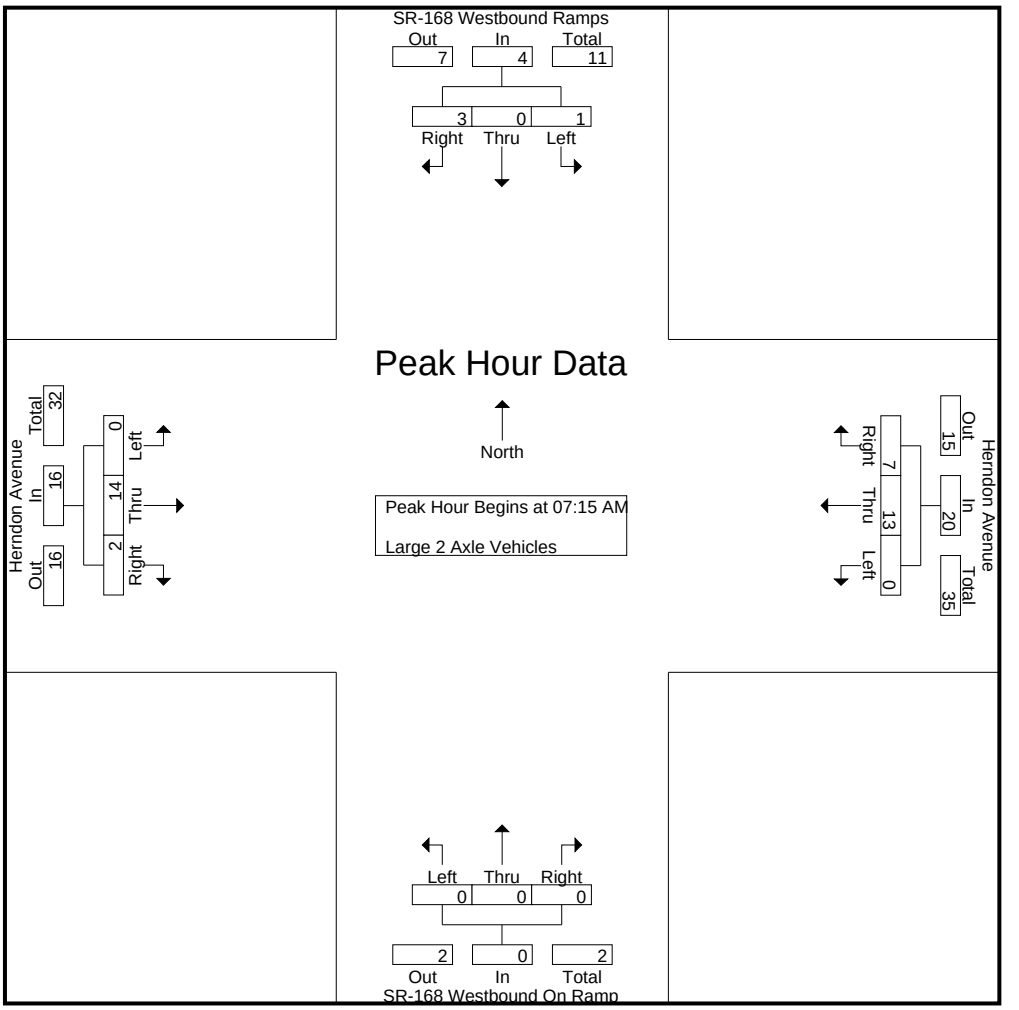
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	1	1	0	2	1	3	0	0	0	0	0	1	2	3	7
07:15 AM	1	0	1	2	0	2	2	4	0	0	0	0	0	2	0	2	8
07:30 AM	0	0	1	1	0	6	0	6	0	0	0	0	0	5	1	6	13
07:45 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	2	1	3	5
Total	1	0	4	5	0	10	4	14	0	0	0	0	0	10	4	14	33
08:00 AM	0	0	0	0	0	5	4	9	0	0	0	0	0	5	0	5	14
08:15 AM	0	0	2	2	0	5	2	7	0	0	0	0	0	6	7	13	22
08:30 AM	0	0	1	1	0	4	1	5	0	0	0	0	0	3	1	4	10
08:45 AM	0	0	1	1	0	4	3	7	0	0	0	0	0	5	1	6	14
Total	0	0	4	4	0	18	10	28	0	0	0	0	0	19	9	28	60
Grand Total	1	0	8	9	0	28	14	42	0	0	0	0	0	29	13	42	93
Apprch %	11.1	0	88.9		0	66.7	33.3		0	0	0		0	69	31		
Total %	1.1	0	8.6	9.7	0	30.1	15.1	45.2	0	0	0	0	0	31.2	14	45.2	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	0	**1**	**2**	0	2	2	4	0	0	0	0	0	2	0	2	8
07:30 AM	0	0	1	1	0	**6**	0	6	0	0	0	0	0	**5**	**1**	**6**	13
07:45 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	2	1	3	5
08:00 AM	0	0	0	0	0	5	**4**	**9**	0	0	0	0	0	5	0	5	**14**
Total Volume	1	0	3	4	0	13	7	20	0	0	0	0	0	14	2	16	40
% App. Total	25	0	75		0	65	35		0	0	0		0	87.5	12.5		
PHF	.250	.000	.750	.500	.000	.542	.438	.556	.000	.000	.000	.000	.000	.700	.500	.667	.714

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	**1**	0	**1**	**2**	0	2	2	4	0	0	0	0	0	2	0	2
+15 mins.	0	0	1	1	0	**6**	0	6	0	0	0	0	0	**5**	**1**	**6**
+30 mins.	0	0	1	1	0	0	1	1	0	0	0	0	0	2	1	3
+45 mins.	0	0	0	0	0	5	**4**	**9**	0	0	0	0	0	5	0	5
Total Volume	1	0	3	4	0	13	7	20	0	0	0	0	0	14	2	16
% App. Total	25	0	75		0	65	35		0	0	0		0	87.5	12.5	
PHF	.250	.000	.750	.500	.000	.542	.438	.556	.000	.000	.000	.000	.000	.700	.500	.667

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

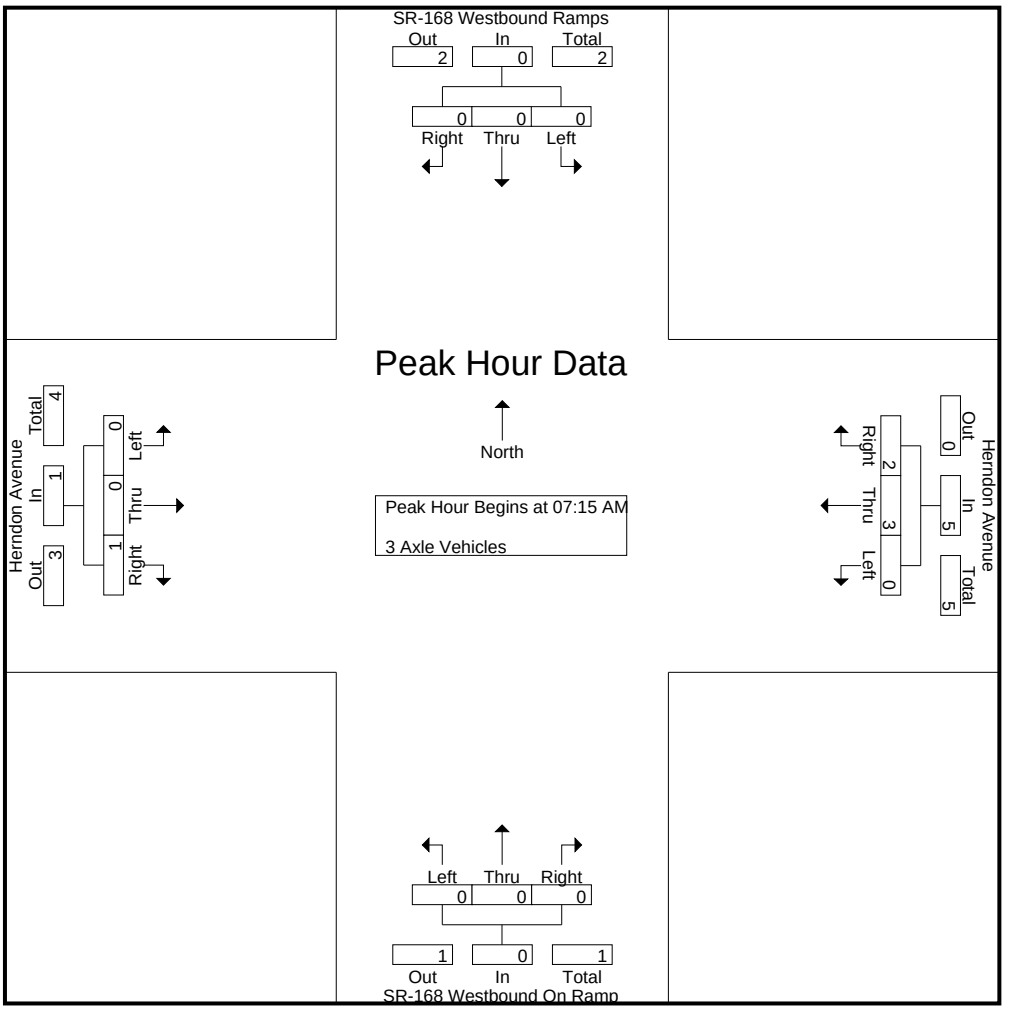
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
07:45 AM	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	3	2	5	0	0	0	0	0	1	2	3	8
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	6	2	8	0	0	0	0	0	1	2	3	11
Apprch %	0	0	0		0	75	25		0	0	0		0	33.3	66.7		
Total %	0	0	0	0	0	54.5	18.2	72.7	0	0	0	0	0	9.1	18.2	27.3	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**1**	**1**	2
07:45 AM	0	0	0	0	0	1	**2**	**3**	0	0	0	0	0	0	0	0	**3**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	2	5	0	0	0	0	0	0	1	1	6
% App. Total	0	0	0		0	60	40		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.750	.250	.417	.000	.000	.000	.000	.000	.000	.250	.250	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**1**	**1**
+30 mins.	0	0	0	0	0	1	**2**	**3**	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	2	5	0	0	0	0	0	0	1	1
% App. Total	0	0	0		0	60	40		0	0	0		0	0	100	
PHF	.000	.000	.000	.000	.000	.750	.250	.417	.000	.000	.000	.000	.000	.000	.250	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

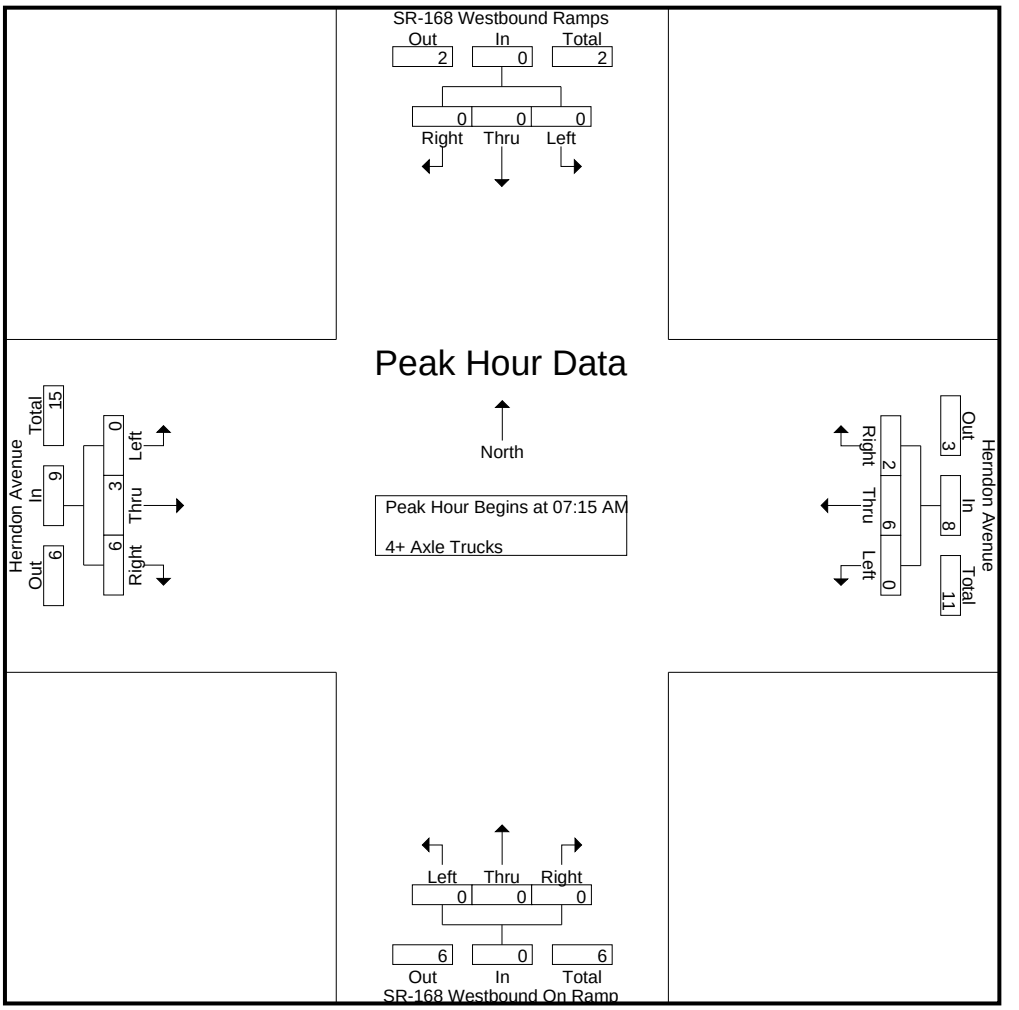
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	6	0	6	0	0	0	0	0	1	1	2	8
07:45 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	2	3	5
Total	0	0	0	0	0	7	2	9	0	0	0	0	0	2	4	6	15
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:30 AM	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	7
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	5	3	8	0	0	0	0	0	1	3	4	12
Grand Total	0	0	0	0	0	12	5	17	0	0	0	0	0	3	7	10	27
Apprch %	0	0	0		0	70.6	29.4		0	0	0		0	30	70		
Total %	0	0	0	0	0	44.4	18.5	63	0	0	0	0	0	11.1	25.9	37	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	**1**	1	2	**8**
07:45 AM	0	0	0	0	0	0	**2**	2	0	0	0	0	0	1	**2**	**3**	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3
Total Volume	0	0	0	0	0	6	2	8	0	0	0	0	0	3	6	9	17
% App. Total	0	0	0		0	75	25		0	0	0		0	33.3	66.7		
PHF	.000	.000	.000	.000	.000	.250	.250	.333	.000	.000	.000	.000	.000	.750	.750	.750	.531

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	**1**	1	2
+30 mins.	0	0	0	0	0	0	**2**	2	0	0	0	0	0	1	**2**	**3**
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
Total Volume	0	0	0	0	0	6	2	8	0	0	0	0	0	3	6	9
% App. Total	0	0	0		0	75	25		0	0	0		0	33.3	66.7	
PHF	.000	.000	.000	.000	.000	.250	.250	.333	.000	.000	.000	.000	.000	.750	.750	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

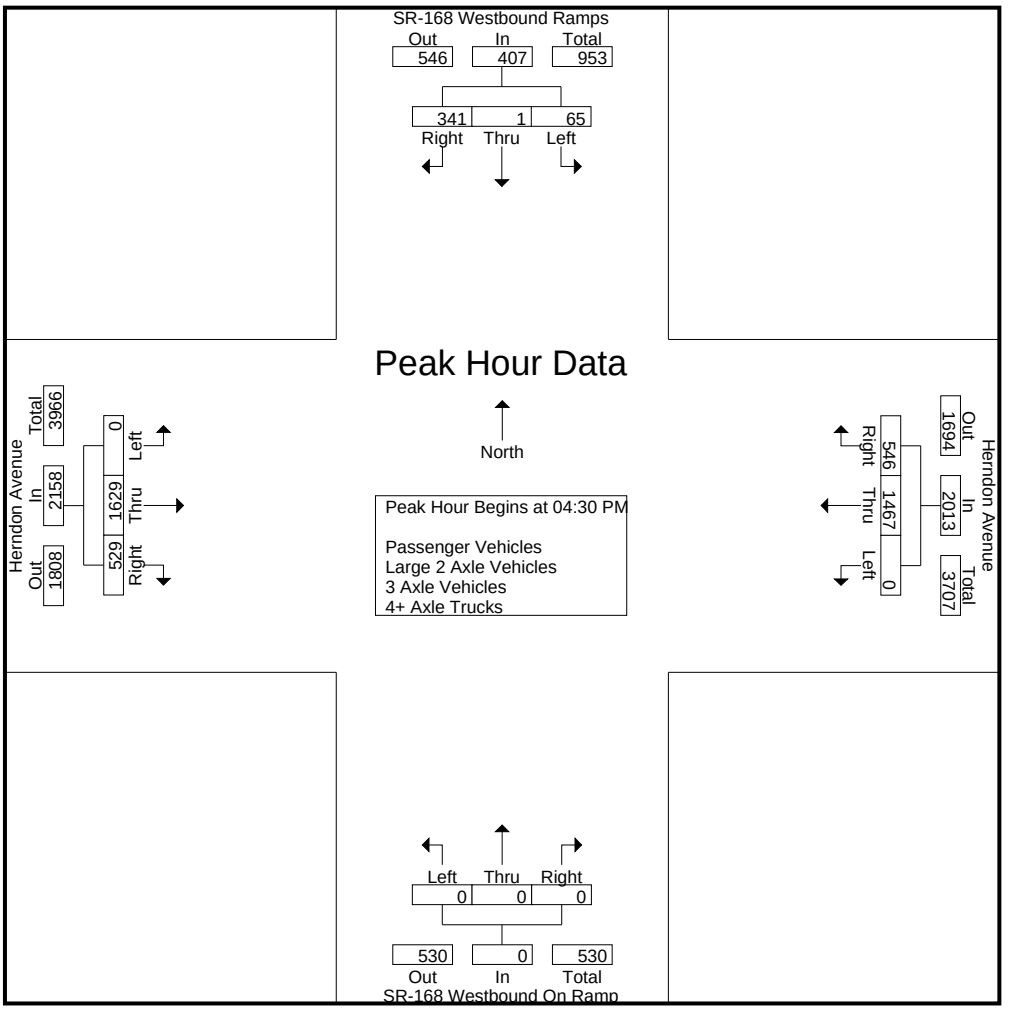
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	16	0	76	92	0	318	118	436	0	0	0	0	0	298	99	397	925
04:15 PM	22	0	89	111	0	358	119	477	0	0	0	0	0	421	128	549	1137
04:30 PM	15	1	82	98	0	374	137	511	0	0	0	0	0	407	135	542	1151
04:45 PM	17	0	90	107	0	359	124	483	0	0	0	0	0	414	122	536	1126
Total	70	1	337	408	0	1409	498	1907	0	0	0	0	0	1540	484	2024	4339
05:00 PM	15	0	87	102	0	356	144	500	0	0	0	0	0	399	150	549	1151
05:15 PM	18	0	82	100	0	378	141	519	0	0	0	0	0	409	122	531	1150
05:30 PM	22	0	77	99	0	325	114	439	0	0	0	0	0	407	116	523	1061
05:45 PM	16	0	73	89	0	297	125	422	0	0	0	0	0	349	95	444	955
Total	71	0	319	390	0	1356	524	1880	0	0	0	0	0	1564	483	2047	4317
Grand Total	141	1	656	798	0	2765	1022	3787	0	0	0	0	0	3104	967	4071	8656
Apprch %	17.7	0.1	82.2		0	73	27		0	0	0		0	76.2	23.8		
Total %	1.6	0	7.6	9.2	0	31.9	11.8	43.8	0	0	0	0	0	35.9	11.2	47	
Passenger Vehicles	141	1	651	793	0	2747	1007	3754	0	0	0	0	0	3091	955	4046	8593
% Passenger Vehicles	100	100	99.2	99.4	0	99.3	98.5	99.1	0	0	0	0	0	99.6	98.8	99.4	99.3
Large 2 Axle Vehicles	0	0	5	5	0	14	10	24	0	0	0	0	0	12	8	20	49
% Large 2 Axle Vehicles	0	0	0.8	0.6	0	0.5	1	0.6	0	0	0	0	0	0.4	0.8	0.5	0.6
3 Axle Vehicles	0	0	0	0	0	1	2	3	0	0	0	0	0	1	3	4	7
% 3 Axle Vehicles	0	0	0	0	0	0	0.2	0.1	0	0	0	0	0	0	0.3	0.1	0.1
4+ Axle Trucks	0	0	0	0	0	3	3	6	0	0	0	0	0	0	1	1	7
% 4+ Axle Trucks	0	0	0	0	0	0.1	0.3	0.2	0	0	0	0	0	0	0.1	0	0.1

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	**1**	82	98	0	374	137	511	0	0	0	0	0	407	135	542	**1151**
04:45 PM	17	0	**90**	**107**	0	359	124	483	0	0	0	0	0	**414**	122	536	1126
05:00 PM	15	0	87	102	0	356	**144**	500	0	0	0	0	0	399	**150**	**549**	1151
05:15 PM	**18**	0	82	100	0	**378**	141	**519**	0	0	0	0	0	409	122	531	1150
Total Volume	65	1	341	407	0	1467	546	2013	0	0	0	0	0	1629	529	2158	4578
% App. Total	16	0.2	83.8		0	72.9	27.1		0	0	0		0	75.5	24.5		
PHF	.903	.250	.947	.951	.000	.970	.948	.970	.000	.000	.000	.000	.000	.984	.882	.983	.994

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				04:00 PM				04:15 PM			
+0 mins.	**22**	0	89	**111**	0	374	137	511	0	0	0	0	0	**421**	128	**549**
+15 mins.	15	**1**	82	98	0	359	124	483	0	0	0	0	0	407	135	542
+30 mins.	17	0	**90**	107	0	356	**144**	500	0	0	0	0	0	414	122	536
+45 mins.	15	0	87	102	0	**378**	141	**519**	0	0	0	0	0	399	**150**	549
Total Volume	69	1	348	418	0	1467	546	2013	0	0	0	0	0	1641	535	2176
% App. Total	16.5	0.2	83.3		0	72.9	27.1		0	0	0		0	75.4	24.6	
PHF	.784	.250	.967	.941	.000	.970	.948	.970	.000	.000	.000	.000	.000	.974	.892	.991

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

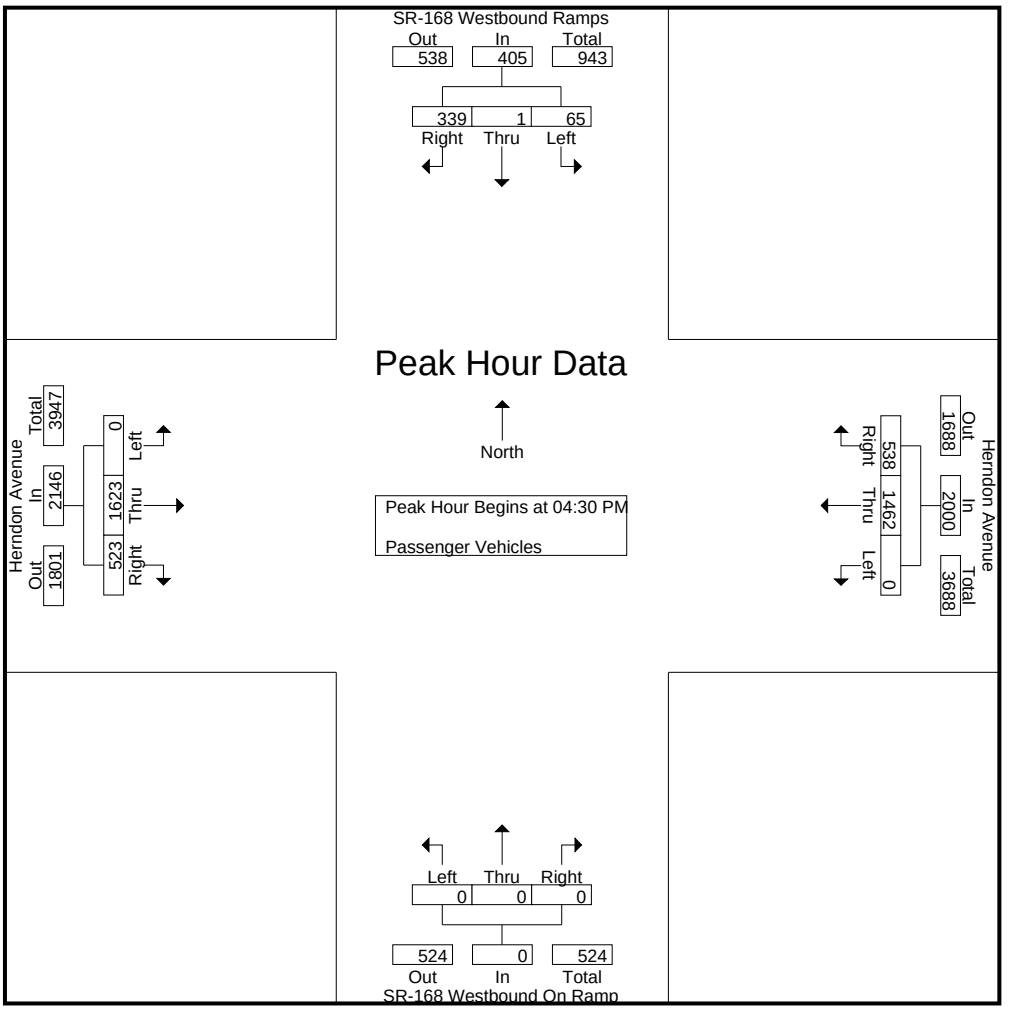
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	16	0	75	91	0	316	115	431	0	0	0	0	0	296	96	392	914
04:15 PM	22	0	88	110	0	353	117	470	0	0	0	0	0	419	125	544	1124
04:30 PM	15	1	81	97	0	372	133	505	0	0	0	0	0	405	132	537	1139
04:45 PM	17	0	89	106	0	357	122	479	0	0	0	0	0	412	120	532	1117
Total	70	1	333	404	0	1398	487	1885	0	0	0	0	0	1532	473	2005	4294
05:00 PM	15	0	87	102	0	356	143	499	0	0	0	0	0	399	149	548	1149
05:15 PM	18	0	82	100	0	377	140	517	0	0	0	0	0	407	122	529	1146
05:30 PM	22	0	76	98	0	323	113	436	0	0	0	0	0	404	116	520	1054
05:45 PM	16	0	73	89	0	293	124	417	0	0	0	0	0	349	95	444	950
Total	71	0	318	389	0	1349	520	1869	0	0	0	0	0	1559	482	2041	4299
Grand Total	141	1	651	793	0	2747	1007	3754	0	0	0	0	0	3091	955	4046	8593
Apprch %	17.8	0.1	82.1		0	73.2	26.8		0	0	0		0	76.4	23.6		
Total %	1.6	0	7.6	9.2	0	32	11.7	43.7	0	0	0	0	0	36	11.1	47.1	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	**1**	81	97	0	372	133	505	0	0	0	0	0	405	132	537	1139
04:45 PM	17	0	**89**	**106**	0	357	122	479	0	0	0	0	0	**412**	120	532	1117
05:00 PM	15	0	87	102	0	356	**143**	499	0	0	0	0	0	399	**149**	**548**	**1149**
05:15 PM	**18**	0	82	100	0	**377**	140	**517**	0	0	0	0	0	407	122	529	1146
Total Volume	65	1	339	405	0	1462	538	2000	0	0	0	0	0	1623	523	2146	4551
% App. Total	16	0.2	83.7		0	73.1	26.9		0	0	0		0	75.6	24.4		
PHF	.903	.250	.952	.955	.000	.969	.941	.967	.000	.000	.000	.000	.000	.985	.878	.979	.990

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	15	**1**	81	97	0	372	133	505	0	0	0	0	0	405	132	537
+15 mins.	17	0	**89**	**106**	0	357	122	479	0	0	0	0	0	**412**	120	532
+30 mins.	15	0	87	102	0	356	**143**	499	0	0	0	0	0	399	**149**	**548**
+45 mins.	**18**	0	82	100	0	**377**	140	**517**	0	0	0	0	0	407	122	529
Total Volume	65	1	339	405	0	1462	538	2000	0	0	0	0	0	1623	523	2146
% App. Total	16	0.2	83.7		0	73.1	26.9		0	0	0		0	75.6	24.4	
PHF	.903	.250	.952	.955	.000	.969	.941	.967	.000	.000	.000	.000	.000	.985	.878	.979

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

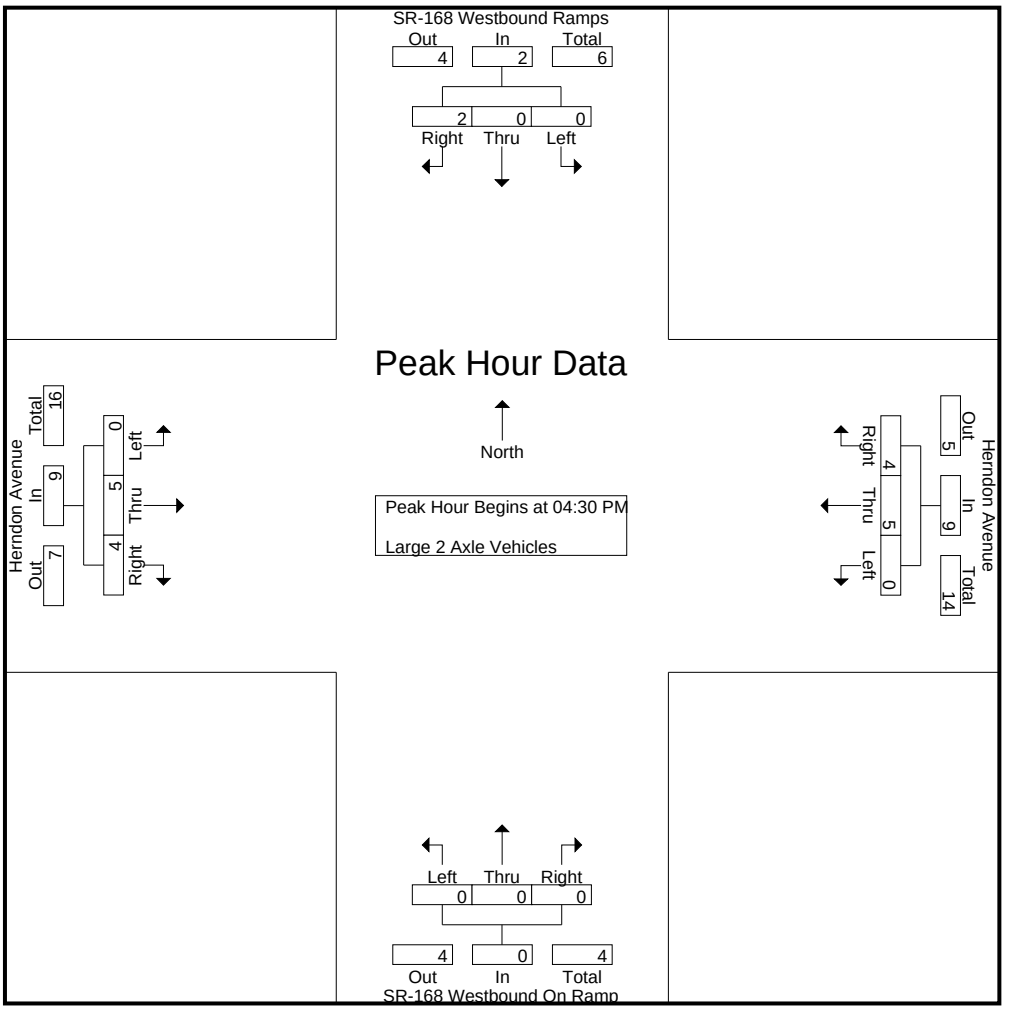
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	2	2	4	0	0	0	0	0	2	2	4	9
04:15 PM	0	0	1	1	0	3	2	5	0	0	0	0	0	2	2	4	10
04:30 PM	0	0	1	1	0	2	2	4	0	0	0	0	0	2	1	3	8
04:45 PM	0	0	1	1	0	2	1	3	0	0	0	0	0	1	2	3	7
Total	0	0	4	4	0	9	7	16	0	0	0	0	0	7	7	14	34
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	2	0	2	4
05:30 PM	0	0	1	1	0	1	1	2	0	0	0	0	0	3	0	3	6
05:45 PM	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	4
Total	0	0	1	1	0	5	3	8	0	0	0	0	0	5	1	6	15
Grand Total	0	0	5	5	0	14	10	24	0	0	0	0	0	12	8	20	49
Apprch %	0	0	100		0	58.3	41.7		0	0	0		0	60	40		
Total %	0	0	10.2	10.2	0	28.6	20.4	49	0	0	0	0	0	24.5	16.3	40.8	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**1**	**1**	0	**2**	**2**	**4**	0	0	0	0	0	**2**	1	**3**	**8**
04:45 PM	0	0	1	1	0	2	1	3	0	0	0	0	0	1	**2**	3	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	2	0	2	4
Total Volume	0	0	2	2	0	5	4	9	0	0	0	0	0	5	4	9	20
% App. Total	0	0	100		0	55.6	44.4		0	0	0		0	55.6	44.4		
PHF	.000	.000	.500	.500	.000	.625	.500	.563	.000	.000	.000	.000	.000	.625	.500	.750	.625

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	**1**	**1**	0	**2**	**2**	**4**	0	0	0	0	0	**2**	1	**3**
+15 mins.	0	0	1	1	0	2	1	3	0	0	0	0	0	1	**2**	3
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	1	1	2	0	0	0	0	0	2	0	2
Total Volume	0	0	2	2	0	5	4	9	0	0	0	0	0	5	4	9
% App. Total	0	0	100		0	55.6	44.4		0	0	0		0	55.6	44.4	
PHF	.000	.000	.500	.500	.000	.625	.500	.563	.000	.000	.000	.000	.000	.625	.500	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

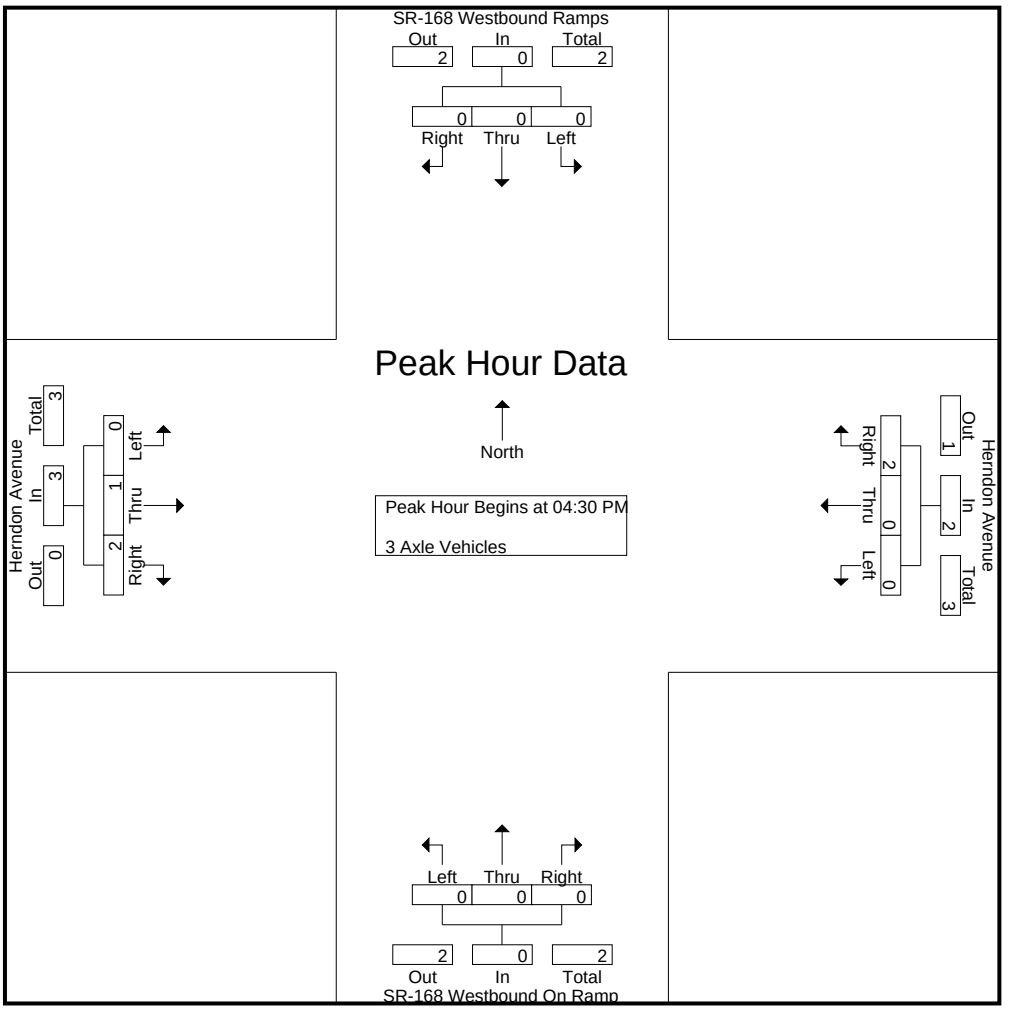
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	2	2	0	0	0	0	0	1	3	4	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	1	2	3	0	0	0	0	0	1	3	4	7
Apprch %	0	0	0		0	33.3	66.7		0	0	0		0	25	75		
Total %	0	0	0	0	0	14.3	28.6	42.9	0	0	0	0	0	14.3	42.9	57.1	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	**2**	**2**	**4**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	0	1	2	3	5
% App. Total	0	0	0		0	0	100		0	0	0		0	33.3	66.7		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.250	.375	.313

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	**2**	**2**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	0	1	2	3
% App. Total	0	0	0		0	0	100		0	0	0		0	33.3	66.7	
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250	.250	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

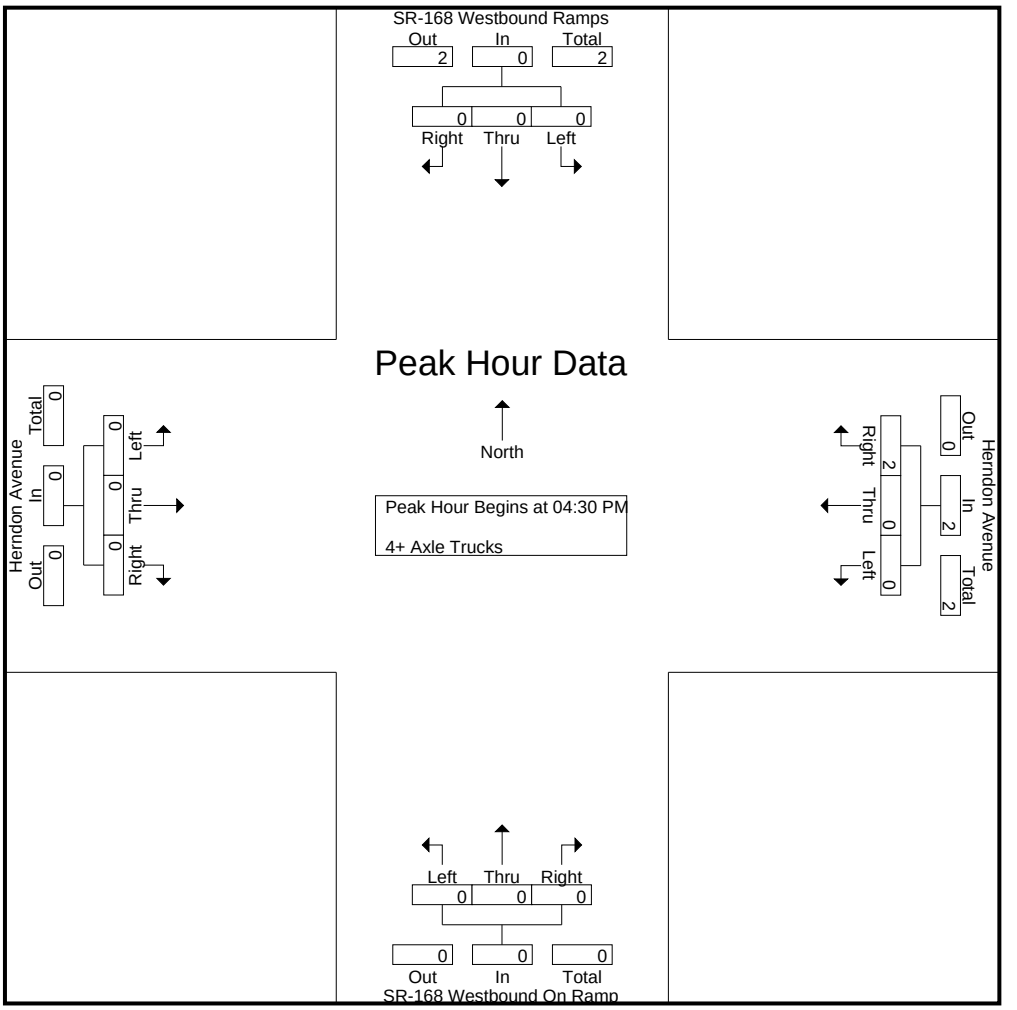
	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2
04:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	2	4	0	0	0	0	0	0	1	1	5
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	3	3	6	0	0	0	0	0	0	1	1	7
Apprch %	0	0	0		0	50	50		0	0	0		0	0	100		
Total %	0	0	0	0	0	42.9	42.9	85.7	0	0	0	0	0	0	14.3	14.3	

	SR-168 Westbound Ramps Southbound				Herndon Avenue Westbound				SR-168 Westbound On Ramp Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
% App. Total	0	0	0		0	0	100		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: SR-168 Westbound Ramps
E/W: Herndon Avenue
Weather: Clear

File Name : 12_CVS_168W_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	100		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: SR-168 WB Ramps
E/W: Herndon Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg SR-168 WB Ramps	East Leg Herndon Avenue	South Leg SR-168 WB Ramps	West Leg Herndon Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg SR-168 WB Ramps	East Leg Herndon Avenue	South Leg SR-168 WB Ramps	West Leg Herndon Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: SR-168 WB Ramps
E/W: Herndon Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound SR-168 WB Ramps			Westbound Herndon Avenue			Northbound SR-168 WB Ramps			Eastbound Herndon Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

	Southbound SR-168 WB Ramps			Westbound Herndon Avenue			Northbound SR-168 WB Ramps			Eastbound Herndon Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

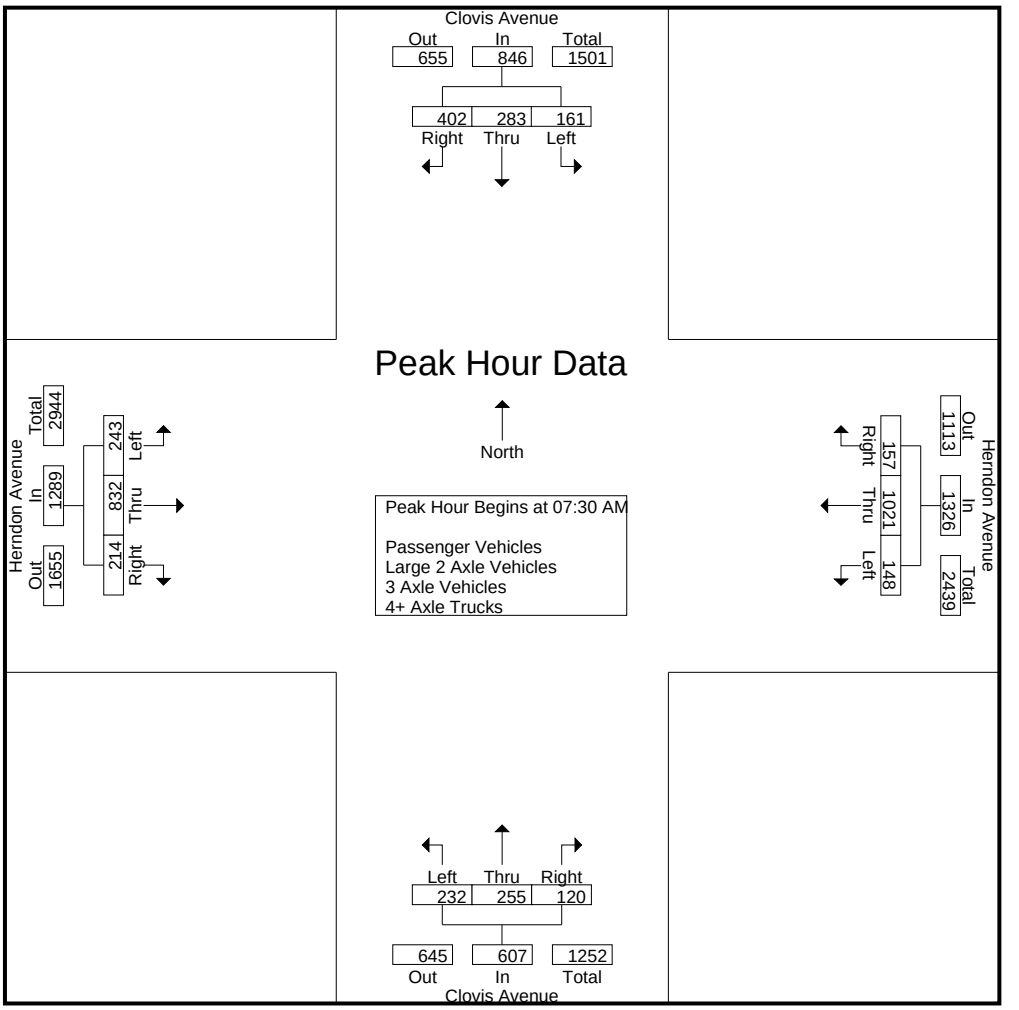
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	29	28	89	146	21	208	24	253	38	37	7	82	42	116	22	180	661
07:15 AM	37	36	81	154	21	270	39	330	54	61	24	139	53	130	51	234	857
07:30 AM	35	64	120	219	34	264	50	348	58	74	27	159	59	189	46	294	1020
07:45 AM	51	92	98	241	47	274	39	360	66	63	25	154	64	214	60	338	1093
Total	152	220	388	760	123	1016	152	1291	216	235	83	534	218	649	179	1046	3631
08:00 AM	41	61	89	191	34	237	32	303	53	64	39	156	62	249	57	368	1018
08:15 AM	34	66	95	195	33	246	36	315	55	54	29	138	58	180	51	289	937
08:30 AM	51	65	73	189	50	264	29	343	56	55	30	141	53	204	60	317	990
08:45 AM	51	76	64	191	62	202	28	292	54	46	38	138	72	182	66	320	941
Total	177	268	321	766	179	949	125	1253	218	219	136	573	245	815	234	1294	3886
Grand Total	329	488	709	1526	302	1965	277	2544	434	454	219	1107	463	1464	413	2340	7517
Apprch %	21.6	32	46.5		11.9	77.2	10.9		39.2	41	19.8		19.8	62.6	17.6		
Total %	4.4	6.5	9.4	20.3	4	26.1	3.7	33.8	5.8	6	2.9	14.7	6.2	19.5	5.5	31.1	
Passenger Vehicles	320	482	702	1504	297	1928	272	2497	431	440	213	1084	449	1429	398	2276	7361
% Passenger Vehicles	97.3	98.8	99	98.6	98.3	98.1	98.2	98.2	99.3	96.9	97.3	97.9	97	97.6	96.4	97.3	97.9
Large 2 Axle Vehicles	9	4	6	19	4	28	3	35	0	11	5	16	8	29	11	48	118
% Large 2 Axle Vehicles	2.7	0.8	0.8	1.2	1.3	1.4	1.1	1.4	0	2.4	2.3	1.4	1.7	2	2.7	2.1	1.6
3 Axle Vehicles	0	0	1	1	0	4	1	5	0	1	0	1	3	3	1	7	14
% 3 Axle Vehicles	0	0	0.1	0.1	0	0.2	0.4	0.2	0	0.2	0	0.1	0.6	0.2	0.2	0.3	0.2
4+ Axle Trucks	0	2	0	2	1	5	1	7	3	2	1	6	3	3	3	9	24
% 4+ Axle Trucks	0	0.4	0	0.1	0.3	0.3	0.4	0.3	0.7	0.4	0.5	0.5	0.6	0.2	0.7	0.4	0.3

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	35	64	**120**	219	34	264	**50**	348	58	**74**	27	**159**	59	189	46	294	1020
07:45 AM	**51**	**92**	98	**241**	**47**	**274**	39	**360**	**66**	63	25	154	**64**	214	**60**	338	**1093**
08:00 AM	41	61	89	191	34	237	32	303	53	64	**39**	156	62	**249**	57	**368**	1018
08:15 AM	34	66	95	195	33	246	36	315	55	54	29	138	58	180	51	289	937
Total Volume	161	283	402	846	148	1021	157	1326	232	255	120	607	243	832	214	1289	4068
% App. Total	19	33.5	47.5		11.2	77	11.8		38.2	42	19.8		18.9	64.5	16.6		
PHF	.789	.769	.838	.878	.787	.932	.785	.921	.879	.861	.769	.954	.949	.835	.892	.876	.930

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:45 AM			
+0 mins.	35	64	**120**	219	21	270	39	330	54	61	24	139	**64**	214	**60**	338
+15 mins.	**51**	**92**	98	**241**	34	264	**50**	348	58	**74**	27	**159**	62	**249**	57	**368**
+30 mins.	41	61	89	191	**47**	**274**	39	**360**	**66**	63	25	154	58	180	51	289
+45 mins.	34	66	95	195	34	237	32	303	53	64	**39**	156	53	204	60	317
Total Volume	161	283	402	846	136	1045	160	1341	231	262	115	608	237	847	228	1312
% App. Total	19	33.5	47.5		10.1	77.9	11.9		38	43.1	18.9		18.1	64.6	17.4	
PHF	.789	.769	.838	.878	.723	.953	.800	.931	.875	.885	.737	.956	.926	.850	.950	.891

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

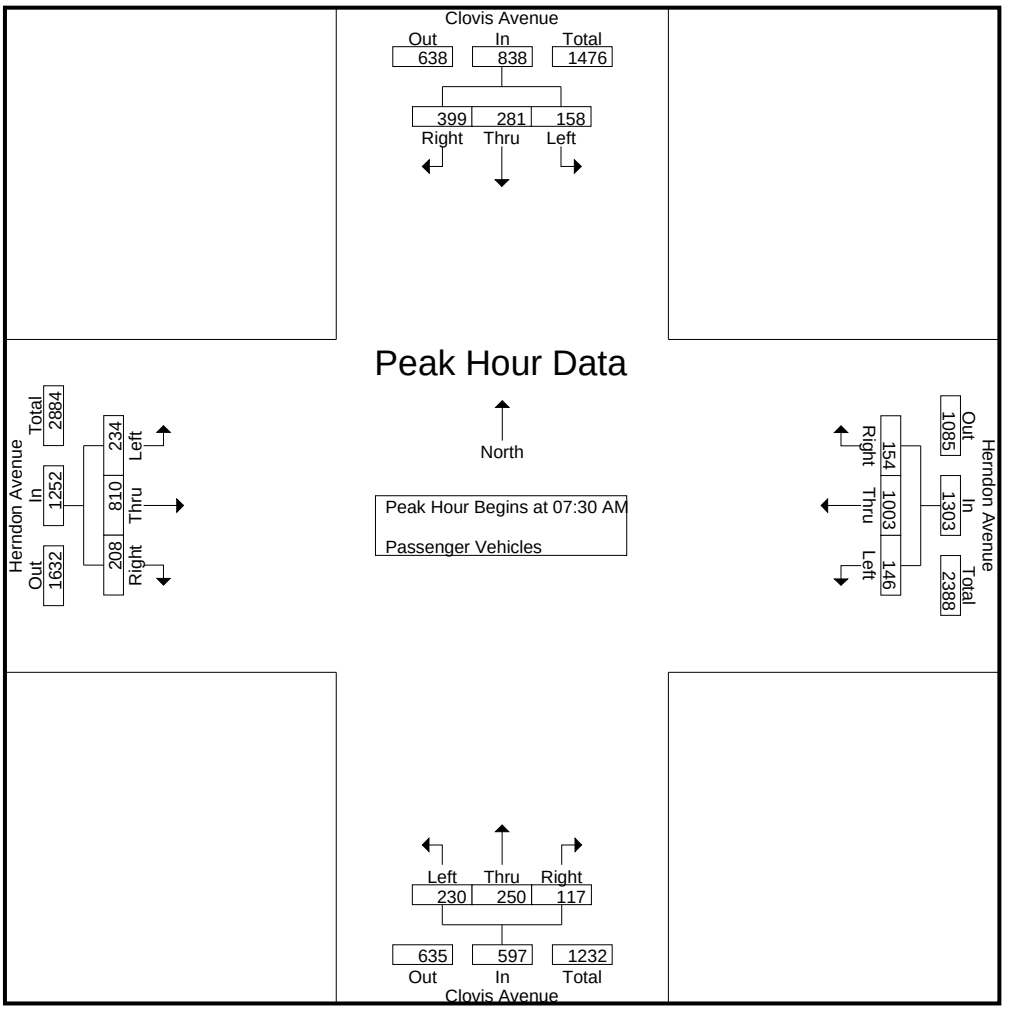
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	28	28	89	145	20	204	23	247	38	34	7	79	41	113	20	174	645
07:15 AM	36	35	80	151	21	265	39	325	54	59	23	136	49	130	49	228	840
07:30 AM	33	64	120	217	33	259	49	341	58	74	26	158	54	185	45	284	1000
07:45 AM	51	92	97	240	47	271	39	357	64	60	25	149	63	209	59	331	1077
Total	148	219	386	753	121	999	150	1270	214	227	81	522	207	637	173	1017	3562
08:00 AM	40	59	88	187	33	231	31	295	53	64	38	155	61	240	54	355	992
08:15 AM	34	66	94	194	33	242	35	310	55	52	28	135	56	176	50	282	921
08:30 AM	48	63	73	184	49	257	28	334	55	54	30	139	53	198	59	310	967
08:45 AM	50	75	61	186	61	199	28	288	54	43	36	133	72	178	62	312	919
Total	172	263	316	751	176	929	122	1227	217	213	132	562	242	792	225	1259	3799
Grand Total	320	482	702	1504	297	1928	272	2497	431	440	213	1084	449	1429	398	2276	7361
Apprch %	21.3	32	46.7		11.9	77.2	10.9		39.8	40.6	19.6		19.7	62.8	17.5		
Total %	4.3	6.5	9.5	20.4	4	26.2	3.7	33.9	5.9	6	2.9	14.7	6.1	19.4	5.4	30.9	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	33	64	**120**	217	33	259	**49**	341	58	**74**	26	**158**	54	185	45	284	1000
07:45 AM	**51**	**92**	97	**240**	**47**	**271**	39	**357**	**64**	60	25	149	**63**	209	**59**	331	**1077**
08:00 AM	40	59	88	187	33	231	31	295	53	64	**38**	155	61	**240**	54	**355**	992
08:15 AM	34	66	94	194	33	242	35	310	55	52	28	135	56	176	50	282	921
Total Volume	158	281	399	838	146	1003	154	1303	230	250	117	597	234	810	208	1252	3990
% App. Total	18.9	33.5	47.6		11.2	77	11.8		38.5	41.9	19.6		18.7	64.7	16.6		
PHF	.775	.764	.831	.873	.777	.925	.786	.912	.898	.845	.770	.945	.929	.844	.881	.882	.926

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	33	64	**120**	217	33	259	**49**	341	58	**74**	26	**158**	54	185	45	284
+15 mins.	**51**	**92**	97	**240**	**47**	**271**	39	**357**	**64**	60	25	149	**63**	209	**59**	331
+30 mins.	40	59	88	187	33	231	31	295	53	64	**38**	155	61	**240**	54	**355**
+45 mins.	34	66	94	194	33	242	35	310	55	52	28	135	56	176	50	282
Total Volume	158	281	399	838	146	1003	154	1303	230	250	117	597	234	810	208	1252
% App. Total	18.9	33.5	47.6		11.2	77	11.8		38.5	41.9	19.6		18.7	64.7	16.6	
PHF	.775	.764	.831	.873	.777	.925	.786	.912	.898	.845	.770	.945	.929	.844	.881	.882

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

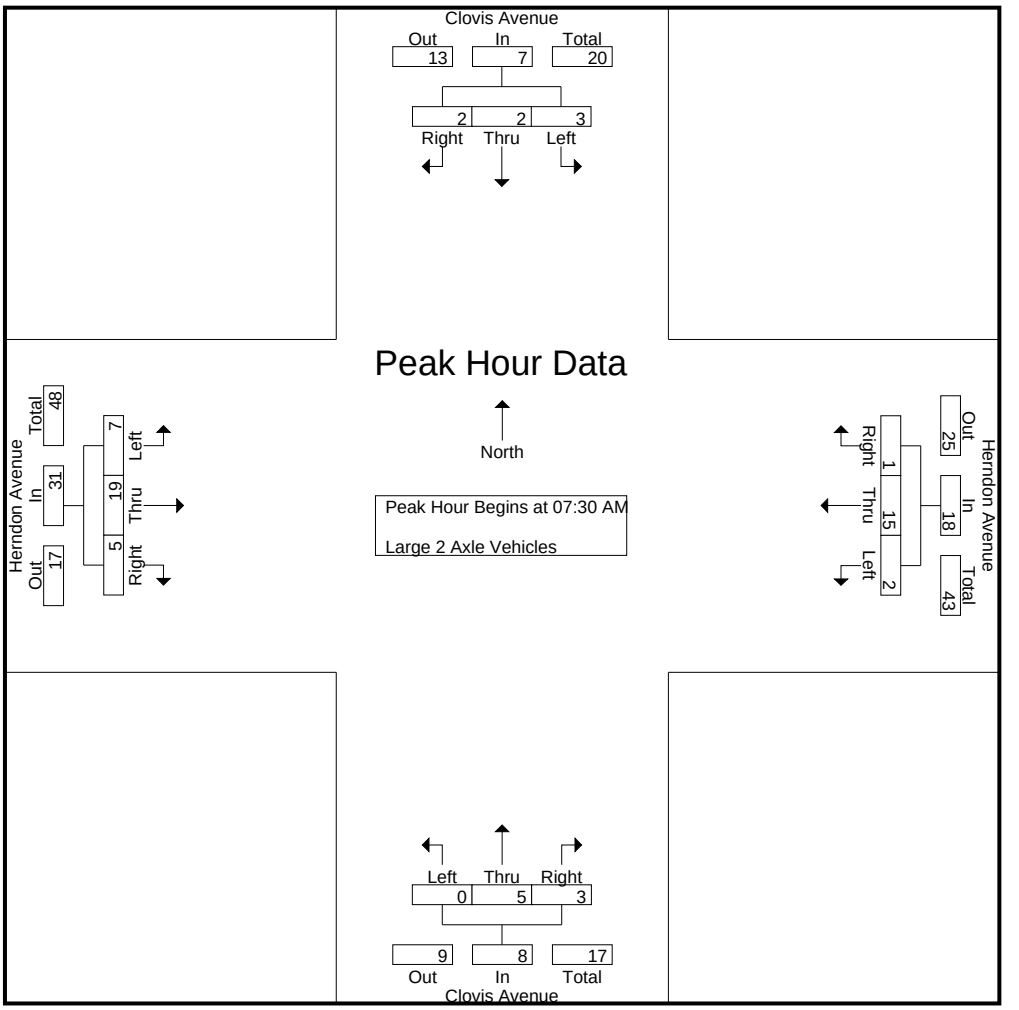
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	1	3	1	5	0	2	0	2	0	2	0	2	10
07:15 AM	1	0	1	2	0	4	0	4	0	2	0	2	1	0	2	3	11
07:30 AM	2	0	0	2	1	4	0	5	0	0	1	1	4	4	1	9	17
07:45 AM	0	0	0	0	0	2	0	2	0	3	0	3	1	4	0	5	10
Total	4	0	1	5	2	13	1	16	0	7	1	8	6	10	3	19	48
08:00 AM	1	2	1	4	1	5	1	7	0	0	1	1	1	8	3	12	24
08:15 AM	0	0	1	1	0	4	0	4	0	2	1	3	1	3	1	5	13
08:30 AM	3	2	0	5	1	3	1	5	0	1	0	1	0	5	0	5	16
08:45 AM	1	0	3	4	0	3	0	3	0	1	2	3	0	3	4	7	17
Total	5	4	5	14	2	15	2	19	0	4	4	8	2	19	8	29	70
Grand Total	9	4	6	19	4	28	3	35	0	11	5	16	8	29	11	48	118
Apprch %	47.4	21.1	31.6		11.4	80	8.6		0	68.8	31.2		16.7	60.4	22.9		
Total %	7.6	3.4	5.1	16.1	3.4	23.7	2.5	29.7	0	9.3	4.2	13.6	6.8	24.6	9.3	40.7	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**2**	0	0	2	**1**	4	0	5	0	0	**1**	1	**4**	4	1	9	17
07:45 AM	0	0	0	0	0	2	0	2	0	**3**	0	**3**	1	4	0	5	10
08:00 AM	1	**2**	**1**	**4**	1	**5**	**1**	**7**	0	0	1	1	1	**8**	**3**	**12**	**24**
08:15 AM	0	0	1	1	0	4	0	4	0	2	1	3	1	3	1	5	13
Total Volume	3	2	2	7	2	15	1	18	0	5	3	8	7	19	5	31	64
% App. Total	42.9	28.6	28.6		11.1	83.3	5.6		0	62.5	37.5		22.6	61.3	16.1		
PHF	.375	.250	.500	.438	.500	.750	.250	.643	.000	.417	.750	.667	.438	.594	.417	.646	.667

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	**2**	0	0	2	**1**	4	0	5	0	0	**1**	1	**4**	4	1	9
+15 mins.	0	0	0	0	0	2	0	2	0	**3**	0	**3**	1	4	0	5
+30 mins.	1	**2**	**1**	**4**	1	**5**	**1**	**7**	0	0	1	1	1	**8**	**3**	**12**
+45 mins.	0	0	1	1	0	4	0	4	0	2	1	3	1	3	1	5
Total Volume	3	2	2	7	2	15	1	18	0	5	3	8	7	19	5	31
% App. Total	42.9	28.6	28.6		11.1	83.3	5.6		0	62.5	37.5		22.6	61.3	16.1	
PHF	.375	.250	.500	.438	.500	.750	.250	.643	.000	.417	.750	.667	.438	.594	.417	.646

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

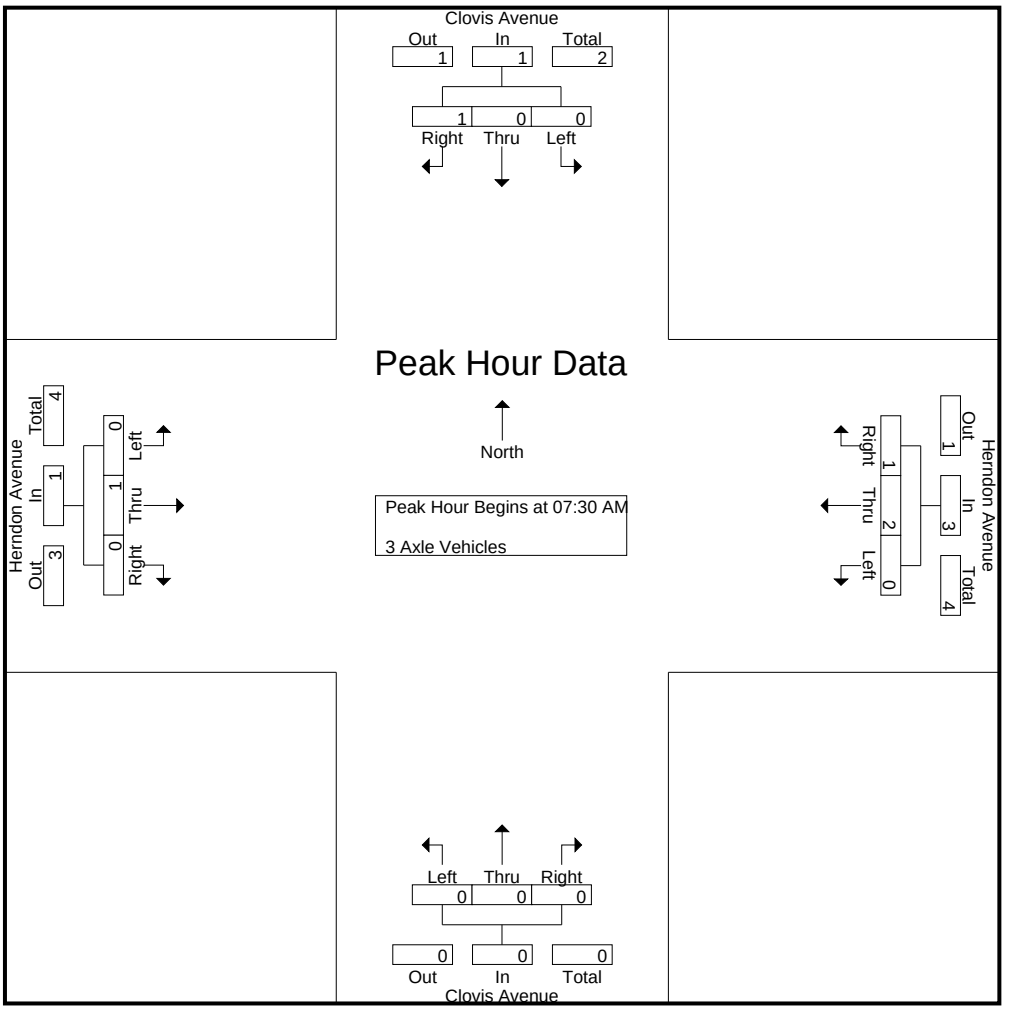
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	1	1	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
Total	0	0	1	1	0	2	0	2	0	1	0	1	3	1	1	5	9
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	2	1	3	0	0	0	0	0	2	0	2	5
Grand Total	0	0	1	1	0	4	1	5	0	1	0	1	3	3	1	7	14
Apprch %	0	0	100		0	80	20		0	100	0		42.9	42.9	14.3		
Total %	0	0	7.1	7.1	0	28.6	7.1	35.7	0	7.1	0	7.1	21.4	21.4	7.1	50	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	**3**
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	1	0	2	1	3	0	0	0	0	0	1	0	1	5
% App. Total	0	0	100		0	66.7	33.3		0	0	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.500	.250	.750	.000	.000	.000	.000	.000	.250	.000	.250	.417

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	0	2	1	3	0	0	0	0	0	1	0	1
% App. Total	0	0	100		0	66.7	33.3		0	0	0		0	100	0	
PHF	.000	.000	.250	.250	.000	.500	.250	.750	.000	.000	.000	.000	.000	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

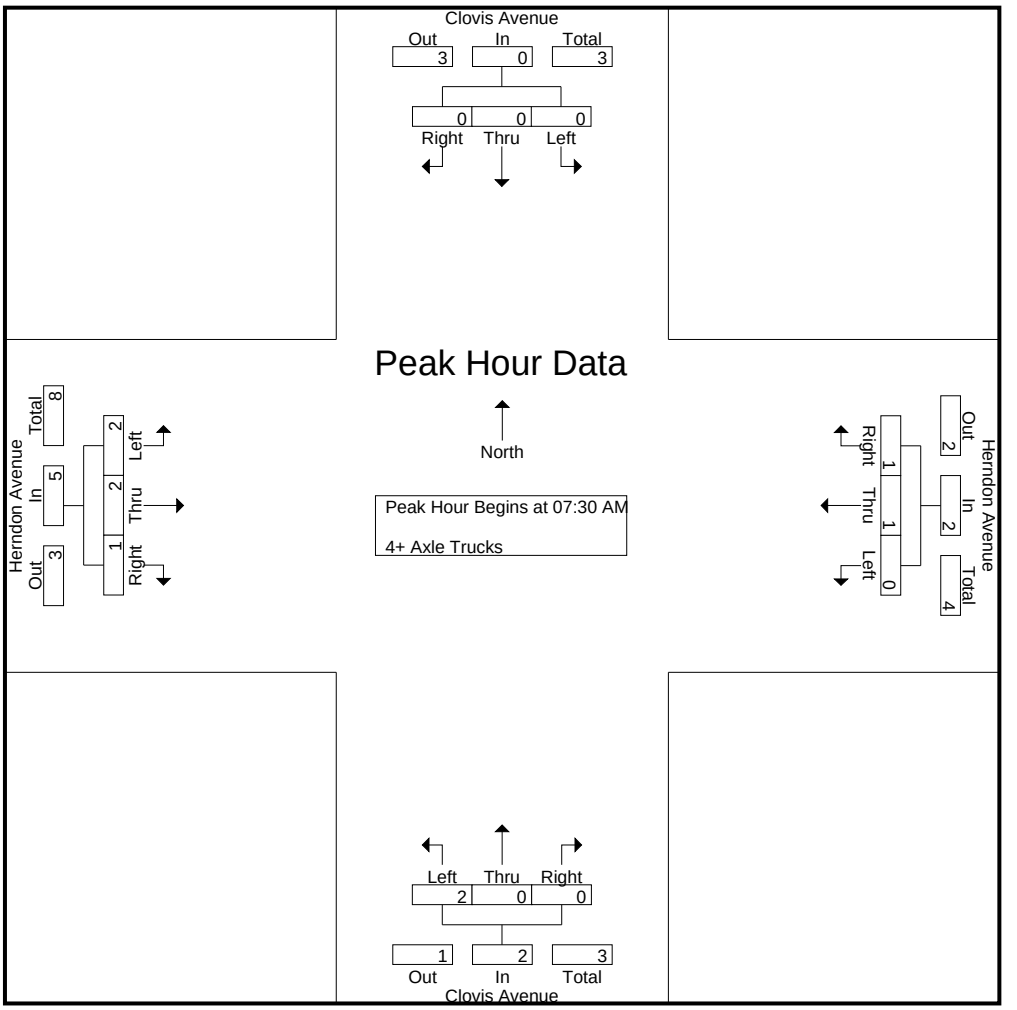
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	3
07:15 AM	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0	0	3
07:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	1	0	0	1	3
07:45 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	1	3
Total	0	1	0	1	0	2	1	3	2	0	1	3	2	1	2	5	12
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
08:30 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	0	1	1	5
08:45 AM	0	1	0	1	1	0	0	1	0	2	0	2	0	0	0	0	4
Total	0	1	0	1	1	3	0	4	1	2	0	3	1	2	1	4	12
Grand Total	0	2	0	2	1	5	1	7	3	2	1	6	3	3	3	9	24
Apprch %	0	100	0		14.3	71.4	14.3		50	33.3	16.7		33.3	33.3	33.3		
Total %	0	8.3	0	8.3	4.2	20.8	4.2	29.2	12.5	8.3	4.2	25	12.5	12.5	12.5	37.5	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	**1**	0	0	1	**3**
07:45 AM	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	**1**	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	**2**	2
Total Volume	0	0	0	0	0	1	1	2	2	0	0	2	2	2	1	5	9
% App. Total	0	0	0		0	50	50		100	0	0		40	40	20		
PHF	.000	.000	.000	.000	.000	.250	.250	.250	.250	.000	.000	.250	.500	.500	.250	.625	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	**1**	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	**1**	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	**2**
Total Volume	0	0	0	0	0	1	1	2	2	0	0	2	2	2	1	5
% App. Total	0	0	0		0	50	50		100	0	0		40	40	20	
PHF	.000	.000	.000	.000	.000	.250	.250	.250	.250	.000	.000	.250	.500	.500	.250	.625

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

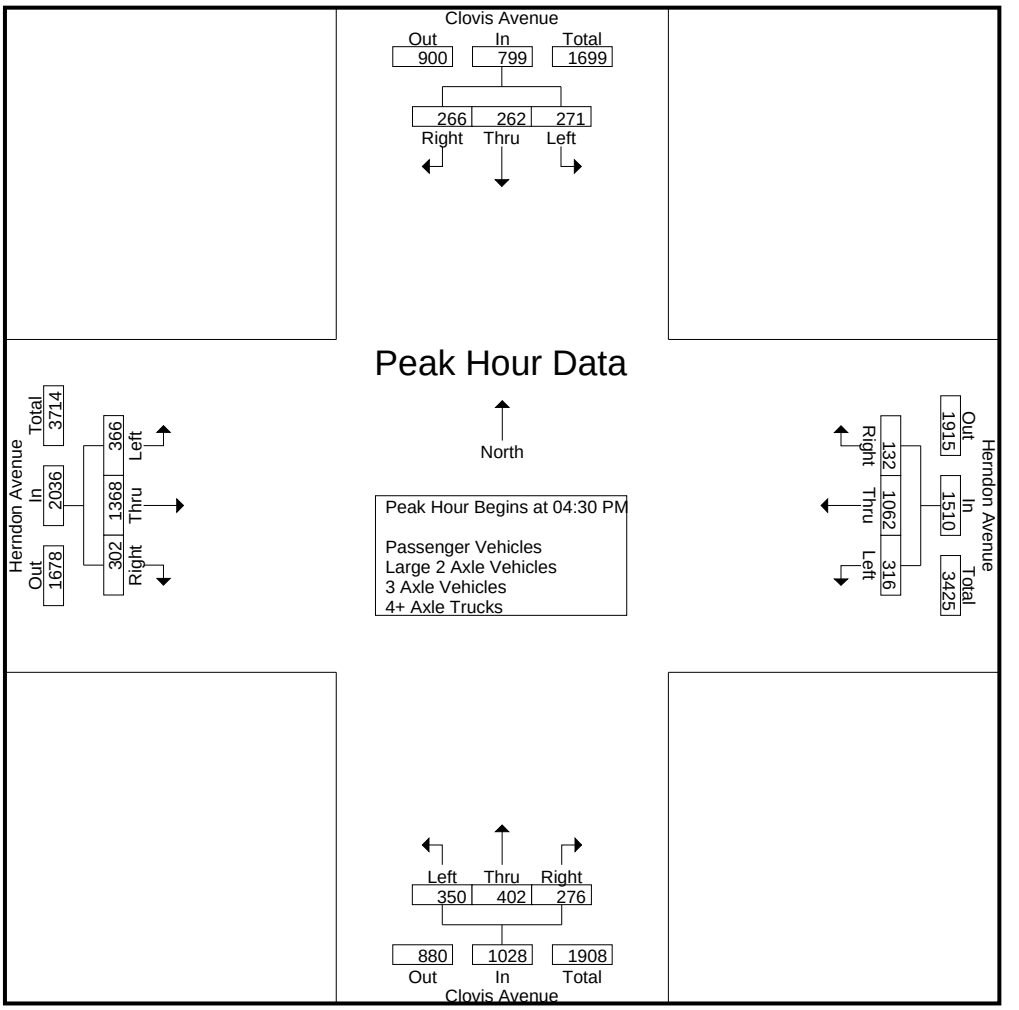
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	46	51	59	156	57	246	32	335	74	99	68	241	62	257	73	392	1124
04:15 PM	56	49	56	161	63	251	38	352	103	110	67	280	110	353	81	544	1337
04:30 PM	71	57	71	199	71	270	24	365	84	71	68	223	81	338	77	496	1283
04:45 PM	52	65	62	179	77	253	40	370	79	88	79	246	90	351	90	531	1326
Total	225	222	248	695	268	1020	134	1422	340	368	282	990	343	1299	321	1963	5070
05:00 PM	63	58	69	190	90	288	37	415	89	125	73	287	94	344	70	508	1400
05:15 PM	85	82	64	231	78	251	31	360	98	118	56	272	101	335	65	501	1364
05:30 PM	76	70	57	203	57	231	35	323	91	87	60	238	90	316	94	500	1264
05:45 PM	48	64	56	168	79	216	34	329	95	94	61	250	76	306	70	452	1199
Total	272	274	246	792	304	986	137	1427	373	424	250	1047	361	1301	299	1961	5227
Grand Total	497	496	494	1487	572	2006	271	2849	713	792	532	2037	704	2600	620	3924	10297
Apprch %	33.4	33.4	33.2		20.1	70.4	9.5		35	38.9	26.1		17.9	66.3	15.8		
Total %	4.8	4.8	4.8	14.4	5.6	19.5	2.6	27.7	6.9	7.7	5.2	19.8	6.8	25.3	6	38.1	
Passenger Vehicles	490	492	489	1471	566	1993	270	2829	710	789	532	2031	695	2579	617	3891	10222
% Passenger Vehicles	98.6	99.2	99	98.9	99	99.4	99.6	99.3	99.6	99.6	100	99.7	98.7	99.2	99.5	99.2	99.3
Large 2 Axle Vehicles	6	4	5	15	5	9	1	15	1	3	0	4	9	17	2	28	62
% Large 2 Axle Vehicles	1.2	0.8	1	1	0.9	0.4	0.4	0.5	0.1	0.4	0	0.2	1.3	0.7	0.3	0.7	0.6
3 Axle Vehicles	1	0	0	1	0	2	0	2	1	0	0	1	0	2	0	2	6
% 3 Axle Vehicles	0.2	0	0	0.1	0	0.1	0	0.1	0.1	0	0	0	0	0.1	0	0.1	0.1
4+ Axle Trucks	0	0	0	0	1	2	0	3	1	0	0	1	0	2	1	3	7
% 4+ Axle Trucks	0	0	0	0	0.2	0.1	0	0.1	0.1	0	0	0	0	0.1	0.2	0.1	0.1

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	71	57	**71**	199	71	270	24	365	84	71	68	223	81	338	77	496	1283
04:45 PM	52	65	62	179	77	253	**40**	370	79	88	**79**	246	90	**351**	**90**	**531**	1326
05:00 PM	63	58	69	190	**90**	**288**	37	**415**	89	**125**	73	**287**	94	344	70	508	**1400**
05:15 PM	**85**	**82**	64	**231**	78	251	31	360	**98**	118	56	272	**101**	335	65	501	1364
Total Volume	271	262	266	799	316	1062	132	1510	350	402	276	1028	366	1368	302	2036	5373
% App. Total	33.9	32.8	33.3		20.9	70.3	8.7		34	39.1	26.8		18	67.2	14.8		
PHF	.797	.799	.937	.865	.878	.922	.825	.910	.893	.804	.873	.895	.906	.974	.839	.959	.959

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				05:00 PM				04:15 PM			
+0 mins.	52	65	62	179	71	270	24	365	89	**125**	**73**	**287**	**110**	**353**	81	**544**
+15 mins.	63	58	**69**	190	77	253	**40**	370	**98**	118	56	272	81	338	77	496
+30 mins.	**85**	**82**	64	**231**	**90**	**288**	37	**415**	91	87	60	238	90	351	**90**	531
+45 mins.	76	70	57	203	78	251	31	360	95	94	61	250	94	344	70	508
Total Volume	276	275	252	803	316	1062	132	1510	373	424	250	1047	375	1386	318	2079
% App. Total	34.4	34.2	31.4		20.9	70.3	8.7		35.6	40.5	23.9		18	66.7	15.3	
PHF	.812	.838	.913	.869	.878	.922	.825	.910	.952	.848	.856	.912	.852	.982	.883	.955

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

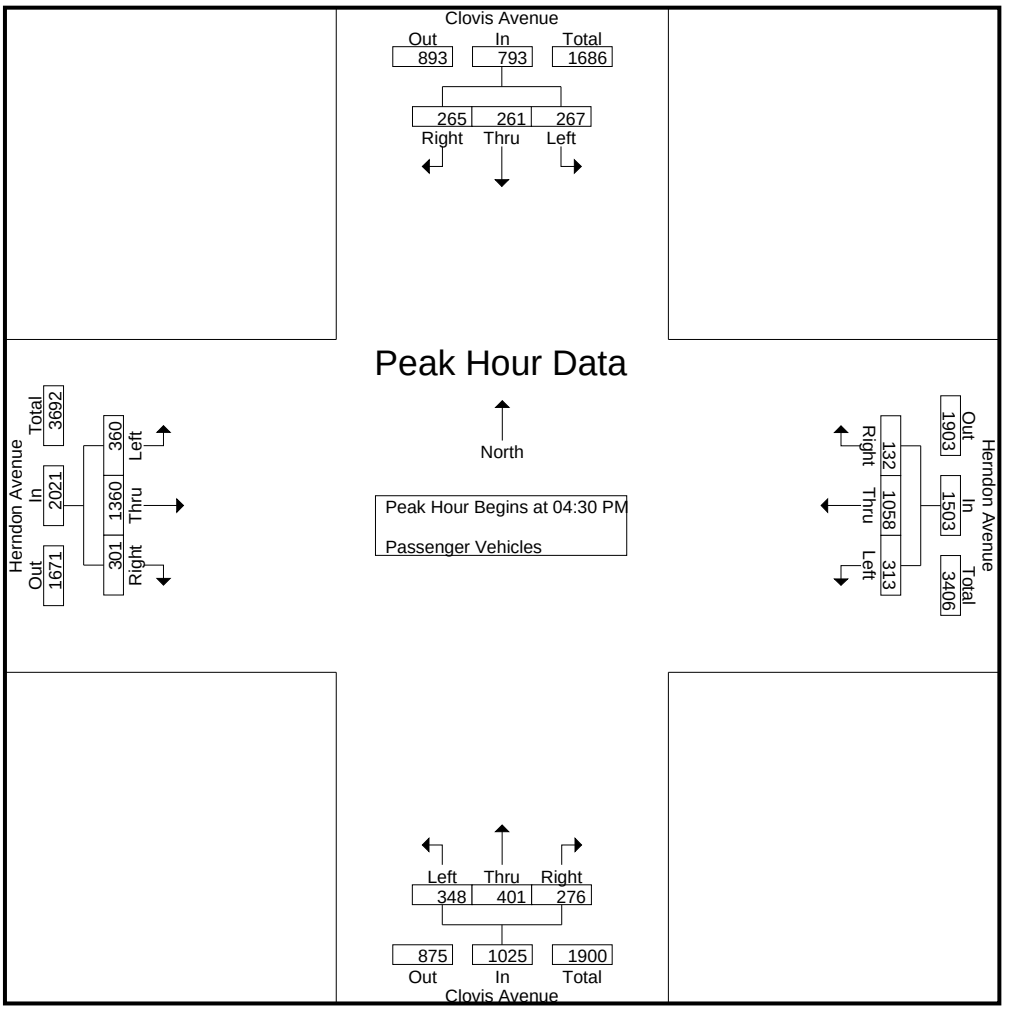
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	45	51	57	153	56	244	32	332	74	98	68	240	61	251	72	384	1109
04:15 PM	55	48	55	158	62	248	38	348	102	110	67	279	108	350	80	538	1323
04:30 PM	69	57	71	197	69	269	24	362	83	70	68	221	79	335	77	491	1271
04:45 PM	51	65	62	178	77	252	40	369	78	88	79	245	89	349	90	528	1320
Total	220	221	245	686	264	1013	134	1411	337	366	282	985	337	1285	319	1941	5023
05:00 PM	62	57	68	187	89	287	37	413	89	125	73	287	94	342	69	505	1392
05:15 PM	85	82	64	231	78	250	31	359	98	118	56	272	98	334	65	497	1359
05:30 PM	75	69	56	200	56	230	34	320	91	86	60	237	90	315	94	499	1256
05:45 PM	48	63	56	167	79	213	34	326	95	94	61	250	76	303	70	449	1192
Total	270	271	244	785	302	980	136	1418	373	423	250	1046	358	1294	298	1950	5199
Grand Total	490	492	489	1471	566	1993	270	2829	710	789	532	2031	695	2579	617	3891	10222
Apprch %	33.3	33.4	33.2		20	70.4	9.5		35	38.8	26.2		17.9	66.3	15.9		
Total %	4.8	4.8	4.8	14.4	5.5	19.5	2.6	27.7	6.9	7.7	5.2	19.9	6.8	25.2	6	38.1	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	69	57	**71**	197	69	269	24	362	83	70	68	221	79	335	77	491	1271
04:45 PM	51	65	62	178	77	252	**40**	369	78	88	**79**	245	89	**349**	**90**	**528**	1320
05:00 PM	62	57	68	187	**89**	**287**	37	**413**	89	**125**	73	**287**	94	342	69	505	**1392**
05:15 PM	**85**	**82**	64	**231**	78	250	31	359	**98**	118	56	272	**98**	334	65	497	1359
Total Volume	267	261	265	793	313	1058	132	1503	348	401	276	1025	360	1360	301	2021	5342
% App. Total	33.7	32.9	33.4		20.8	70.4	8.8		34	39.1	26.9		17.8	67.3	14.9		
PHF	.785	.796	.933	.858	.879	.922	.825	.910	.888	.802	.873	.893	.918	.974	.836	.957	.959

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	69	57	**71**	197	69	269	24	362	83	70	68	221	79	335	77	491
+15 mins.	51	65	62	178	77	252	**40**	369	78	88	**79**	245	89	**349**	**90**	**528**
+30 mins.	62	57	68	187	**89**	**287**	37	**413**	89	**125**	73	**287**	94	342	69	505
+45 mins.	**85**	**82**	64	**231**	78	250	31	359	**98**	118	56	272	**98**	334	65	497
Total Volume	267	261	265	793	313	1058	132	1503	348	401	276	1025	360	1360	301	2021
% App. Total	33.7	32.9	33.4		20.8	70.4	8.8		34	39.1	26.9		17.8	67.3	14.9	
PHF	.785	.796	.933	.858	.879	.922	.825	.910	.888	.802	.873	.893	.918	.974	.836	.957

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

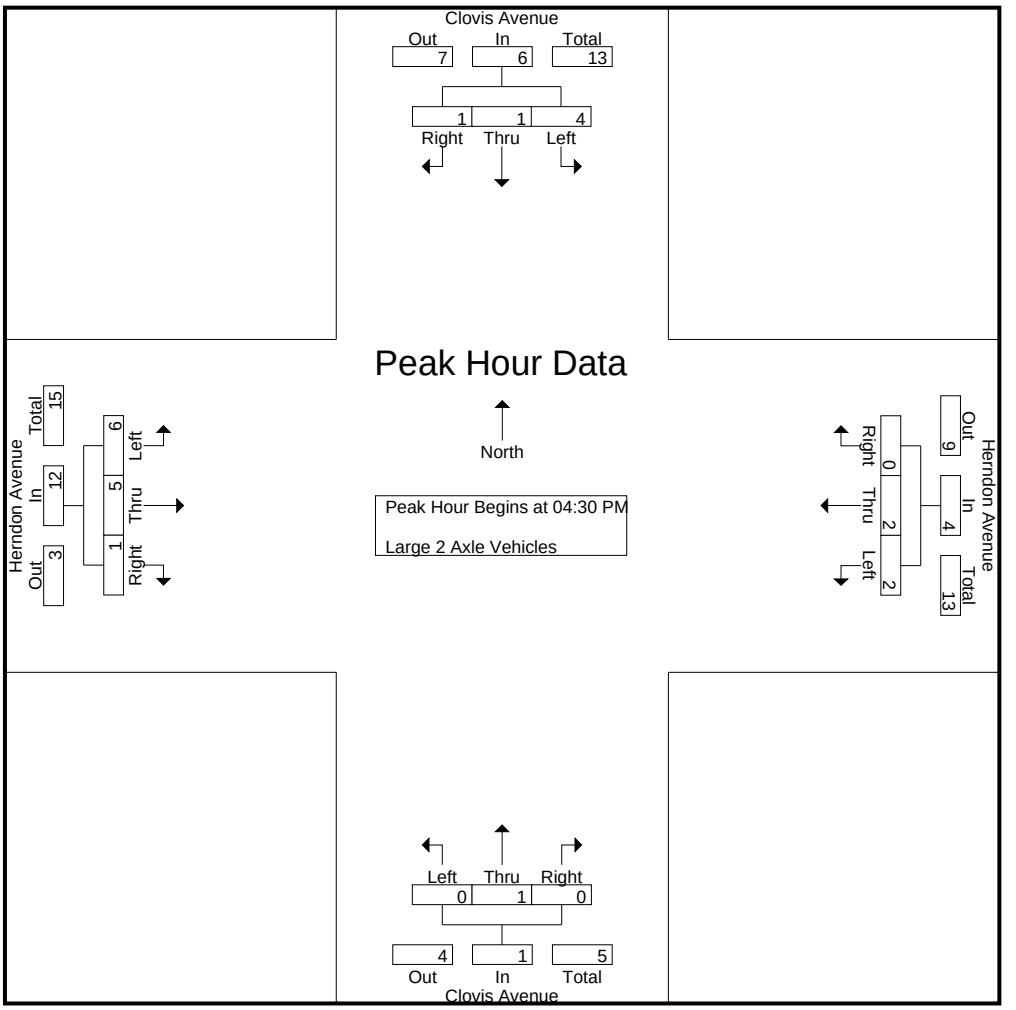
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	2	3	1	1	0	2	0	1	0	1	1	5	0	6	12
04:15 PM	0	1	1	2	1	3	0	4	1	0	0	1	2	3	1	6	13
04:30 PM	2	0	0	2	1	0	0	1	0	1	0	1	2	1	0	3	7
04:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	1	2	0	3	5
Total	4	1	3	8	3	5	0	8	1	2	0	3	6	11	1	18	37
05:00 PM	1	1	1	3	1	0	0	1	0	0	0	0	0	1	1	2	6
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	3	1	0	4	5
05:30 PM	1	1	1	3	1	0	1	2	0	1	0	1	0	1	0	1	7
05:45 PM	0	1	0	1	0	3	0	3	0	0	0	0	0	3	0	3	7
Total	2	3	2	7	2	4	1	7	0	1	0	1	3	6	1	10	25
Grand Total	6	4	5	15	5	9	1	15	1	3	0	4	9	17	2	28	62
Apprch %	40	26.7	33.3		33.3	60	6.7		25	75	0		32.1	60.7	7.1		
Total %	9.7	6.5	8.1	24.2	8.1	14.5	1.6	24.2	1.6	4.8	0	6.5	14.5	27.4	3.2	45.2	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**2**	0	0	2	**1**	0	0	**1**	0	**1**	0	**1**	2	1	0	3	**7**
04:45 PM	1	0	0	1	0	**1**	0	1	0	0	0	0	1	**2**	0	3	5
05:00 PM	1	**1**	**1**	**3**	1	0	0	1	0	0	0	0	0	1	**1**	2	6
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	**3**	1	0	**4**	5
Total Volume	4	1	1	6	2	2	0	4	0	1	0	1	6	5	1	12	23
% App. Total	66.7	16.7	16.7		50	50	0		0	100	0		50	41.7	8.3		
PHF	.500	.250	.250	.500	.500	.500	.000	1.00	.000	.250	.000	.250	.500	.625	.250	.750	.821

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	**2**	0	0	2	**1**	0	0	**1**	0	**1**	0	**1**	2	1	0	3
+15 mins.	1	0	0	1	0	**1**	0	1	0	0	0	0	1	**2**	0	3
+30 mins.	1	**1**	**1**	**3**	1	0	0	1	0	0	0	0	0	1	**1**	2
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	**3**	1	0	**4**
Total Volume	4	1	1	6	2	2	0	4	0	1	0	1	6	5	1	12
% App. Total	66.7	16.7	16.7		50	50	0		0	100	0		50	41.7	8.3	
PHF	.500	.250	.250	.500	.500	.500	.000	1.000	.000	.250	.000	.250	.500	.625	.250	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

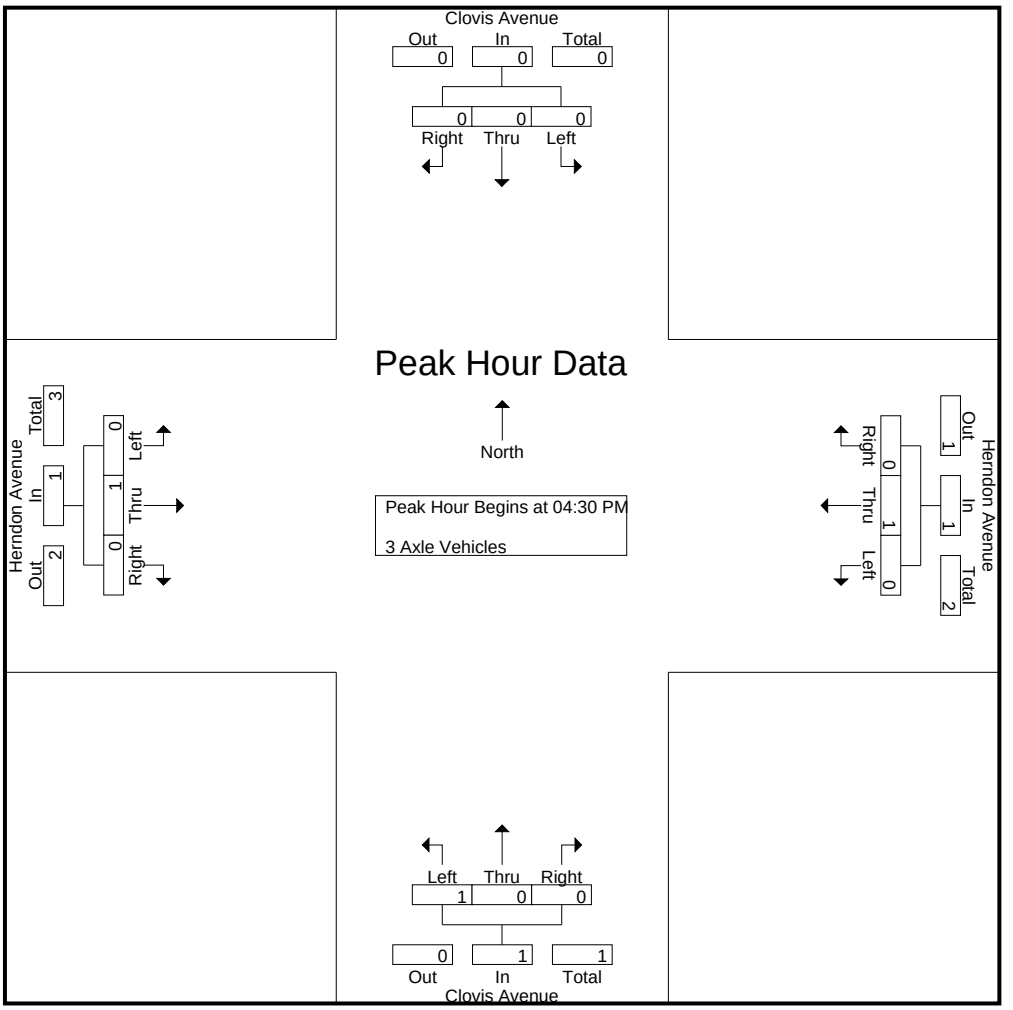
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	1	0	1	1	0	0	1	0	2	0	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	1	0	2	0	2	1	0	0	1	0	2	0	2	6
Apprch %	100	0	0		0	100	0		100	0	0		0	100	0		
Total %	16.7	0	0	16.7	0	33.3	0	33.3	16.7	0	0	16.7	0	33.3	0	33.3	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**1**	0	**1**	**1**	0	0	**1**	0	**1**	0	**1**	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	1	0	0	1	0	1	0	1	3
% App. Total	0	0	0		0	100	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250	.000	.250	.000	.250	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	**1**	0	0	**1**	0	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	1	0	0	1	0	1	0	1
% App. Total	0	0	0		0	100	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.000	.250	.000	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

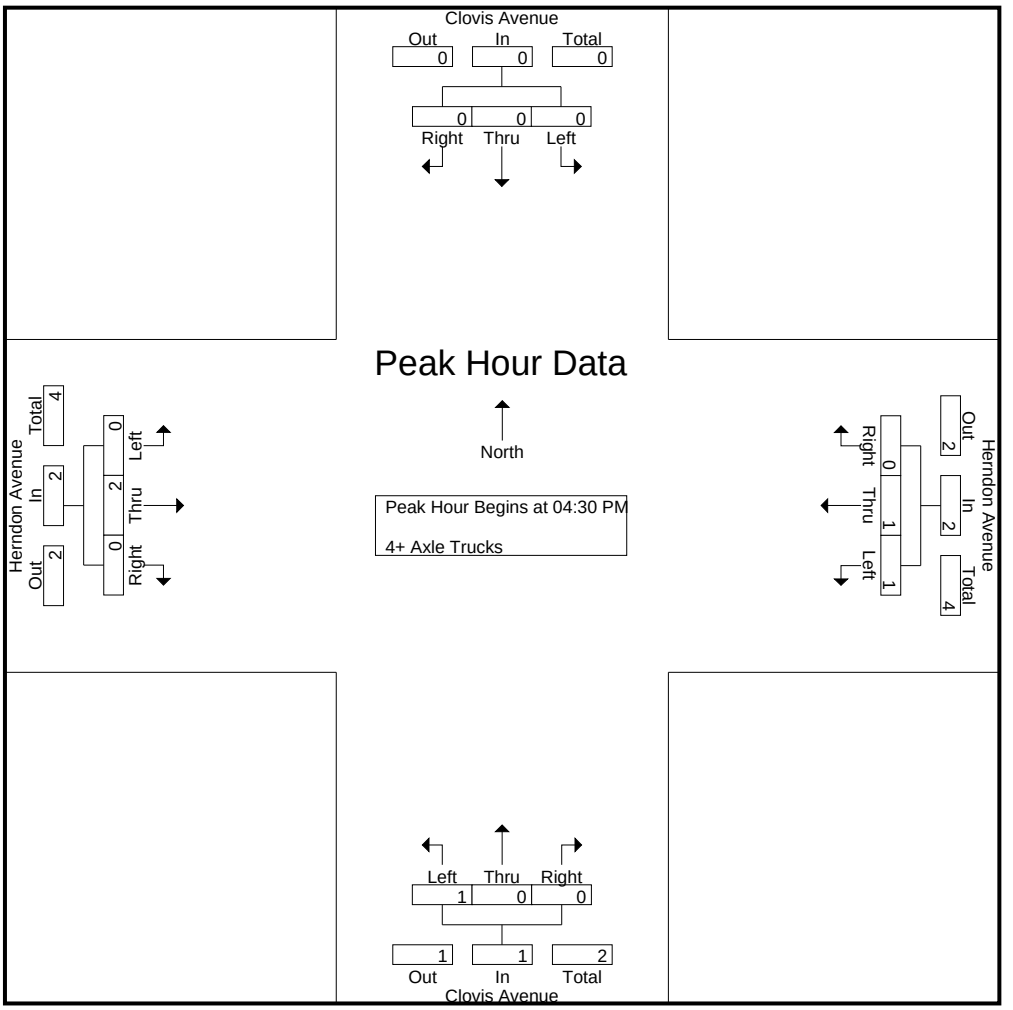
	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	1	1	0	2	1	0	0	1	0	1	1	2	5
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Grand Total	0	0	0	0	1	2	0	3	1	0	0	1	0	2	1	3	7
Apprch %	0	0	0		33.3	66.7	0		100	0	0		0	66.7	33.3		
Total %	0	0	0	0	14.3	28.6	0	42.9	14.3	0	0	14.3	0	28.6	14.3	42.9	

	Clovis Avenue Southbound				Herndon Avenue Westbound				Clovis Avenue Northbound				Herndon Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	**1**	0	**1**	**2**
04:45 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
05:00 PM	0	0	0	0	0	**1**	0	1	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	2	1	0	0	1	0	2	0	2	5
% App. Total	0	0	0		50	50	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.250	.000	.000	.250	.000	.500	.000	.500	.625

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue
Weather: Clear

File Name : 14_CVS_Clo_Hern PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	1	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	2	1	0	0	1	0	2	0	2
% App. Total	0	0	0		50	50	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.250	.000	.000	.250	.000	.500	.000	.500

Location: Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Clovis Avenue	East Leg Herndon Avenue	South Leg Clovis Avenue	West Leg Herndon Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	2	0	0	2

	North Leg Clovis Avenue	East Leg Herndon Avenue	South Leg Clovis Avenue	West Leg Herndon Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	4	0	0	4
4:45 PM	0	0	0	0	0
5:00 PM	1	1	0	0	2
5:15 PM	0	1	0	0	1
5:30 PM	0	2	0	0	2
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	1	9	0	0	10

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Clovis Avenue
E/W: Herndon Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Clovis Avenue			Westbound Herndon Avenue			Northbound Clovis Avenue			Eastbound Herndon Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	1	0	0	2	0	0	0	0	3

	Southbound Clovis Avenue			Westbound Herndon Avenue			Northbound Clovis Avenue			Eastbound Herndon Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	3	0	1	0	0	0	3	0	0	0	0	7

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Baron Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 15_CVS_Baron_Behymer AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

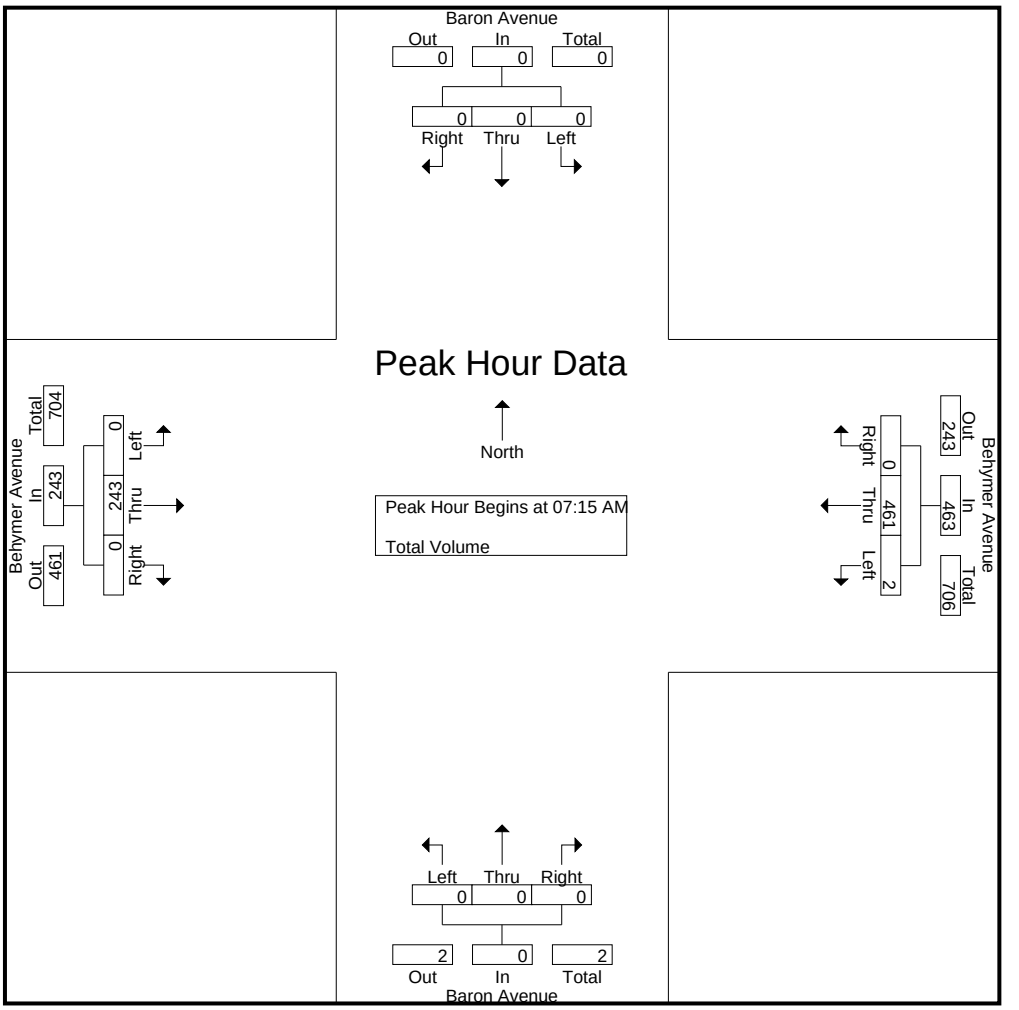
	Baron Avenue Southbound				Behymer Avenue Westbound				Baron Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	55	0	55	0	0	0	0	0	34	0	34	89
07:15 AM	0	0	0	0	0	114	0	114	0	0	0	0	0	29	0	29	143
07:30 AM	0	0	0	0	1	147	0	148	0	0	0	0	0	51	0	51	199
07:45 AM	0	0	0	0	0	121	0	121	0	0	0	0	0	86	0	86	207
Total	0	0	0	0	1	437	0	438	0	0	0	0	0	200	0	200	638
08:00 AM	0	0	0	0	1	79	0	80	0	0	0	0	0	77	0	77	157
08:15 AM	0	0	0	0	0	50	0	50	0	0	1	1	0	55	0	55	106
08:30 AM	0	0	0	0	0	46	0	46	0	0	0	0	0	22	0	22	68
08:45 AM	0	0	0	0	1	34	0	35	0	0	0	0	0	23	0	23	58
Total	0	0	0	0	2	209	0	211	0	0	1	1	0	177	0	177	389
Grand Total	0	0	0	0	3	646	0	649	0	0	1	1	0	377	0	377	1027
Apprch %	0	0	0		0.5	99.5	0		0	0	100		0	100	0		
Total %	0	0	0	0	0.3	62.9	0	63.2	0	0	0.1	0.1	0	36.7	0	36.7	

	Baron Avenue Southbound				Behymer Avenue Westbound				Baron Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	114	0	114	0	0	0	0	0	29	0	29	143
07:30 AM	0	0	0	0	**1**	**147**	0	**148**	0	0	0	0	0	51	0	51	199
07:45 AM	0	0	0	0	0	121	0	121	0	0	0	0	0	**86**	0	**86**	**207**
08:00 AM	0	0	0	0	1	79	0	80	0	0	0	0	0	77	0	77	157
Total Volume	0	0	0	0	2	461	0	463	0	0	0	0	0	243	0	243	706
% App. Total	0	0	0		0.4	99.6	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.500	.784	.000	.782	.000	.000	.000	.000	.000	.706	.000	.706	.853

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Baron Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 15_CVS_Baron_Behymer AM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	114	0	114	0	0	0	0	0	51	0	51
+15 mins.	0	0	0	0	**1**	**147**	0	**148**	0	0	0	0	0	**86**	0	**86**
+30 mins.	0	0	0	0	0	121	0	121	0	0	0	0	0	77	0	77
+45 mins.	0	0	0	0	1	79	0	80	0	0	**1**	**1**	0	55	0	55
Total Volume	0	0	0	0	2	461	0	463	0	0	1	1	0	269	0	269
% App. Total	0	0	0		0.4	99.6	0		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.500	.784	.000	.782	.000	.000	.250	.250	.000	.782	.000	.782

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Baron Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 15_CVS_Baron_Behymer PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Total Volume

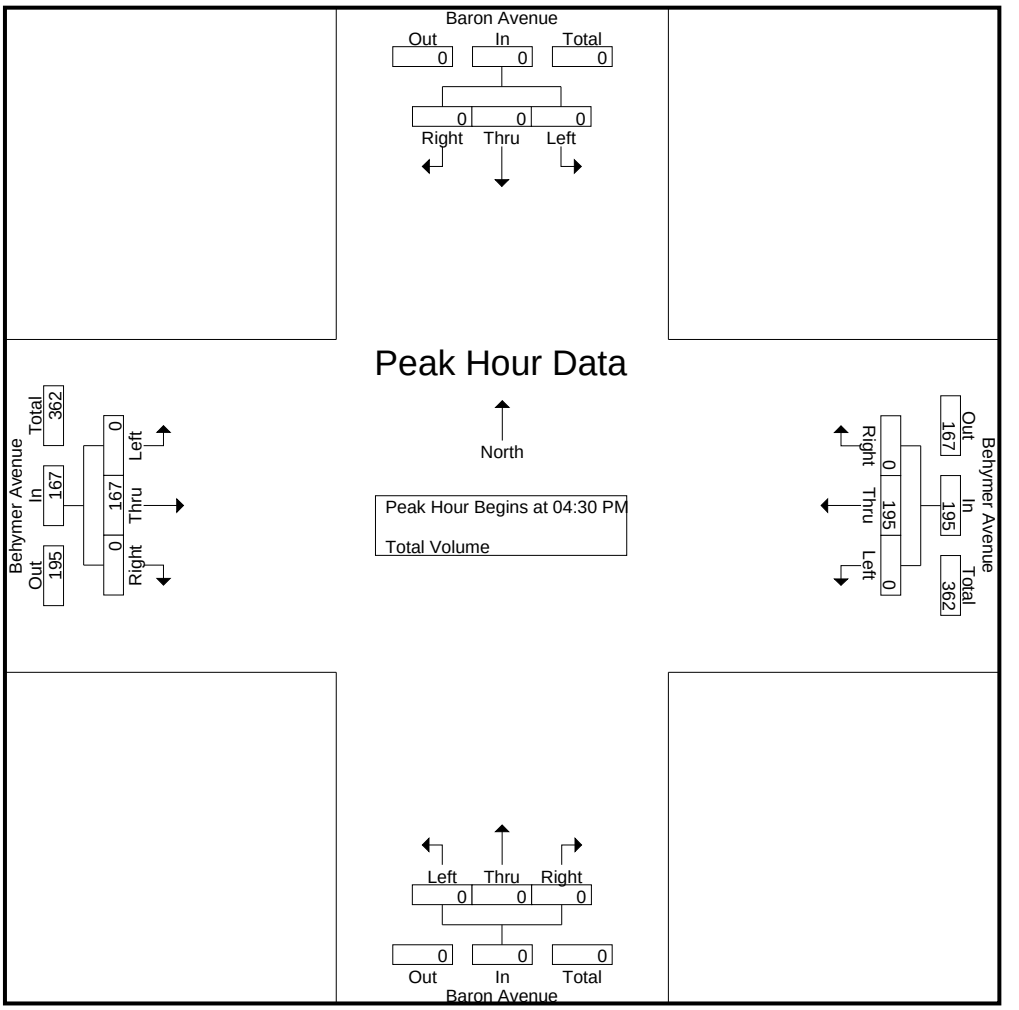
	Baron Avenue Southbound				Behymer Avenue Westbound				Baron Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	41	0	41	0	0	0	0	0	59	0	59	100
04:15 PM	0	0	0	0	0	32	0	32	0	0	0	0	0	47	0	47	79
04:30 PM	0	0	0	0	0	50	0	50	0	0	0	0	0	35	0	35	85
04:45 PM	0	0	0	0	0	43	0	43	0	0	0	0	0	47	0	47	90
Total	0	0	0	0	0	166	0	166	0	0	0	0	0	188	0	188	354
05:00 PM	0	0	0	0	0	50	0	50	0	0	0	0	0	46	0	46	96
05:15 PM	0	0	0	0	0	52	0	52	0	0	0	0	0	39	0	39	91
05:30 PM	0	0	0	0	0	38	0	38	0	0	0	0	0	41	0	41	79
05:45 PM	0	0	0	0	0	41	0	41	0	0	0	0	0	38	0	38	79
Total	0	0	0	0	0	181	0	181	0	0	0	0	0	164	0	164	345
Grand Total	0	0	0	0	0	347	0	347	0	0	0	0	0	352	0	352	699
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	49.6	0	49.6	0	0	0	0	0	50.4	0	50.4	

	Baron Avenue Southbound				Behymer Avenue Westbound				Baron Avenue Northbound				Behymer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	50	0	50	0	0	0	0	0	35	0	35	85
04:45 PM	0	0	0	0	0	43	0	43	0	0	0	0	0	**47**	0	**47**	90
05:00 PM	0	0	0	0	0	50	0	50	0	0	0	0	0	46	0	46	**96**
05:15 PM	0	0	0	0	0	**52**	0	**52**	0	0	0	0	0	39	0	39	91
Total Volume	0	0	0	0	0	195	0	195	0	0	0	0	0	167	0	167	362
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.938	.000	.938	.000	.000	.000	.000	.000	.888	.000	.888	.943

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Baron Avenue
E/W: Behymer Avenue
Weather: Clear

File Name : 15_CVS_Baron_Behymer PM
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	50	0	50	0	0	0	0	0	**59**	0	**59**
+15 mins.	0	0	0	0	0	43	0	43	0	0	0	0	0	47	0	47
+30 mins.	0	0	0	0	0	50	0	50	0	0	0	0	0	35	0	35
+45 mins.	0	0	0	0	0	**52**	0	**52**	0	0	0	0	0	47	0	47
Total Volume	0	0	0	0	0	195	0	195	0	0	0	0	0	188	0	188
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.938	.000	.938	.000	.000	.000	.000	.000	.797	.000	.797

Location: Clovis
N/S: Baron Avenue
E/W: Behymer Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Baron Avenue	East Leg Behymer Avenue	South Leg Baron Avenue	West Leg Behymer Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Baron Avenue	East Leg Behymer Avenue	South Leg Baron Avenue	West Leg Behymer Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Baron Avenue
E/W: Behymer Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Baron Avenue			Westbound Behymer Avenue			Northbound Baron Avenue			Eastbound Behymer Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

	Southbound Baron Avenue			Westbound Behymer Avenue			Northbound Baron Avenue			Eastbound Behymer Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

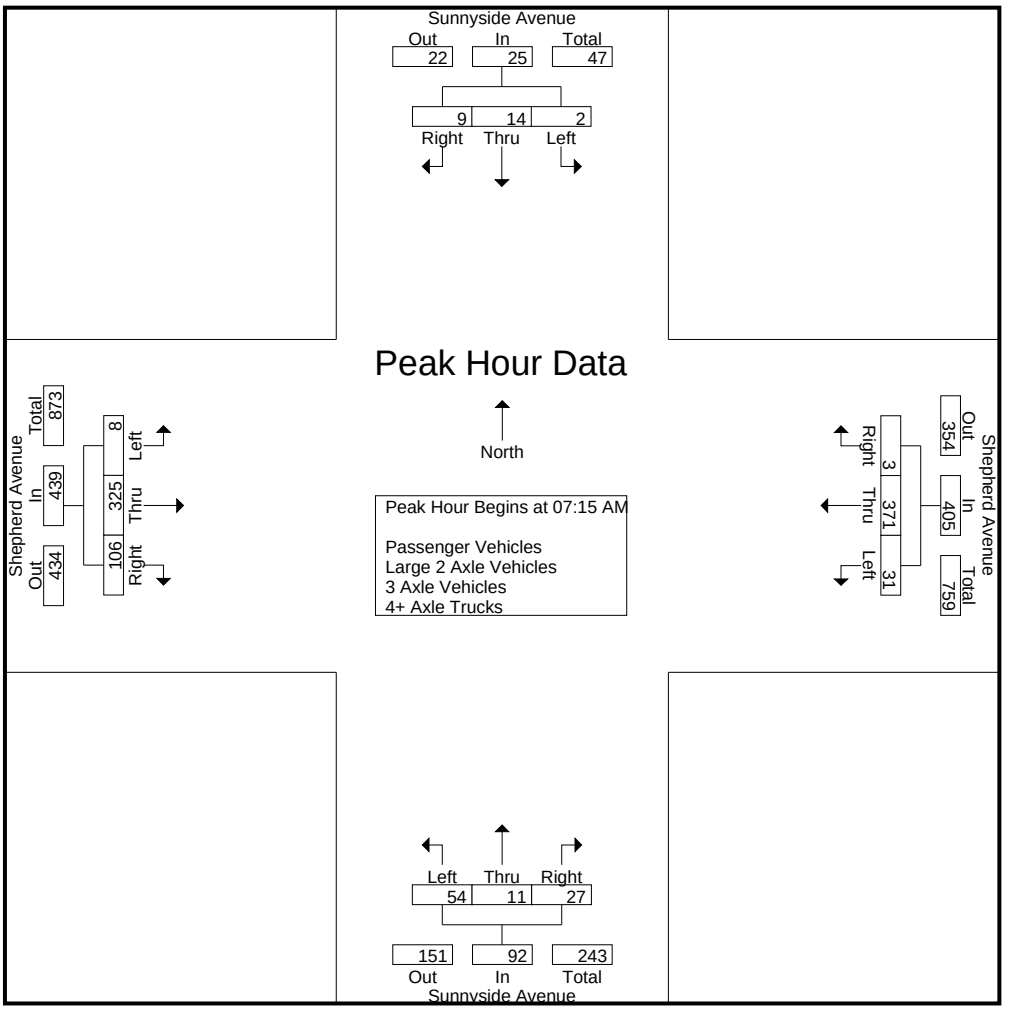
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	2	3	5	74	1	80	10	1	2	13	0	30	10	40	136
07:15 AM	0	2	1	3	3	133	1	137	11	3	4	18	3	63	22	88	246
07:30 AM	1	4	4	9	7	107	0	114	16	4	2	22	0	76	23	99	244
07:45 AM	0	2	1	3	7	60	2	69	13	1	5	19	2	102	34	138	229
Total	1	9	8	18	22	374	4	400	50	9	13	72	5	271	89	365	855
08:00 AM	1	6	3	10	14	71	0	85	14	3	16	33	3	84	27	114	242
08:15 AM	0	6	3	9	5	83	3	91	12	4	4	20	5	49	25	79	199
08:30 AM	0	3	2	5	3	68	0	71	12	3	5	20	3	47	20	70	166
08:45 AM	0	3	3	6	7	66	1	74	20	3	4	27	3	43	18	64	171
Total	1	18	11	30	29	288	4	321	58	13	29	100	14	223	90	327	778
Grand Total	2	27	19	48	51	662	8	721	108	22	42	172	19	494	179	692	1633
Apprch %	4.2	56.2	39.6		7.1	91.8	1.1		62.8	12.8	24.4		2.7	71.4	25.9		
Total %	0.1	1.7	1.2	2.9	3.1	40.5	0.5	44.2	6.6	1.3	2.6	10.5	1.2	30.3	11	42.4	
Passenger Vehicles	2	23	18	43	50	655	7	712	98	20	38	156	19	486	162	667	1578
% Passenger Vehicles	100	85.2	94.7	89.6	98	98.9	87.5	98.8	90.7	90.9	90.5	90.7	100	98.4	90.5	96.4	96.6
Large 2 Axle Vehicles	0	2	1	3	1	6	1	8	6	1	3	10	0	4	11	15	36
% Large 2 Axle Vehicles	0	7.4	5.3	6.2	2	0.9	12.5	1.1	5.6	4.5	7.1	5.8	0	0.8	6.1	2.2	2.2
3 Axle Vehicles	0	0	0	0	0	1	0	1	4	0	1	5	0	2	4	6	12
% 3 Axle Vehicles	0	0	0	0	0	0.2	0	0.1	3.7	0	2.4	2.9	0	0.4	2.2	0.9	0.7
4+ Axle Trucks	0	2	0	2	0	0	0	0	0	1	0	1	0	2	2	4	7
% 4+ Axle Trucks	0	7.4	0	4.2	0	0	0	0	0	4.5	0	0.6	0	0.4	1.1	0.6	0.4

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	2	1	3	3	**133**	1	**137**	11	3	4	18	**3**	63	22	88	**246**
07:30 AM	**1**	4	**4**	9	7	107	0	114	**16**	**4**	2	22	0	76	23	99	244
07:45 AM	0	2	1	3	7	60	**2**	69	13	1	5	19	2	**102**	**34**	**138**	229
08:00 AM	1	**6**	3	**10**	**14**	71	0	85	14	3	**16**	**33**	3	84	27	114	242
Total Volume	2	14	9	25	31	371	3	405	54	11	27	92	8	325	106	439	961
% App. Total	8	56	36		7.7	91.6	0.7		58.7	12	29.3		1.8	74	24.1		
PHF	.500	.583	.563	.625	.554	.697	.375	.739	.844	.688	.422	.697	.667	.797	.779	.795	.977

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				08:00 AM				07:15 AM			
+0 mins.	**1**	4	**4**	9	3	**133**	1	**137**	14	3	**16**	**33**	**3**	63	22	88
+15 mins.	0	2	1	3	7	107	0	114	12	**4**	4	20	0	76	23	99
+30 mins.	1	**6**	3	**10**	7	60	**2**	69	12	3	5	20	2	**102**	**34**	**138**
+45 mins.	0	6	3	9	**14**	71	0	85	**20**	3	4	27	3	84	27	114
Total Volume	2	18	11	31	31	371	3	405	58	13	29	100	8	325	106	439
% App. Total	6.5	58.1	35.5		7.7	91.6	0.7		58	13	29		1.8	74	24.1	
PHF	.500	.750	.688	.775	.554	.697	.375	.739	.725	.813	.453	.758	.667	.797	.779	.795

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

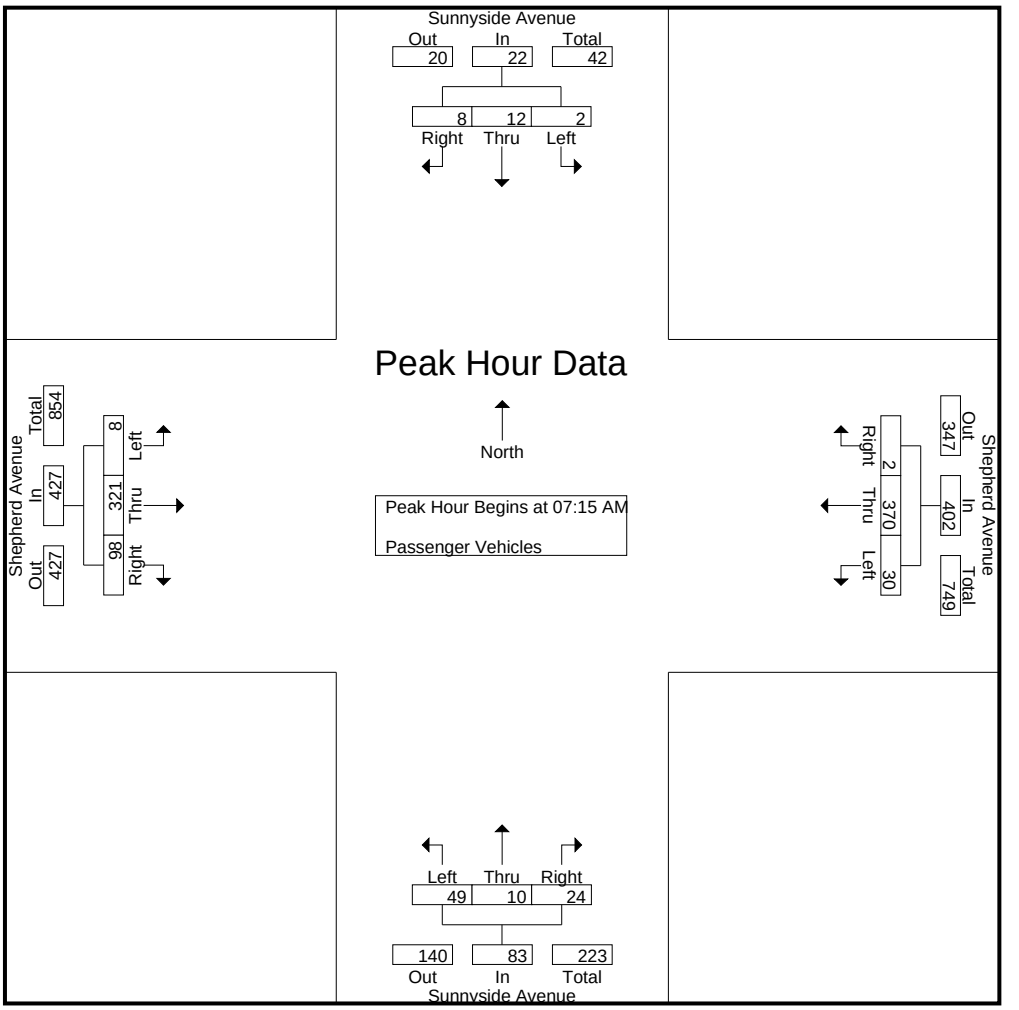
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	2	3	5	70	1	76	9	1	1	11	0	29	10	39	129
07:15 AM	0	1	1	2	3	133	1	137	11	3	1	15	3	62	21	86	240
07:30 AM	1	3	4	8	6	107	0	113	15	3	2	20	0	76	20	96	237
07:45 AM	0	2	0	2	7	59	1	67	11	1	5	17	2	100	31	133	219
Total	1	7	7	15	21	369	3	393	46	8	9	63	5	267	82	354	825
08:00 AM	1	6	3	10	14	71	0	85	12	3	16	31	3	83	26	112	238
08:15 AM	0	6	3	9	5	82	3	90	11	3	4	18	5	48	21	74	191
08:30 AM	0	1	2	3	3	68	0	71	11	3	5	19	3	46	19	68	161
08:45 AM	0	3	3	6	7	65	1	73	18	3	4	25	3	42	14	59	163
Total	1	16	11	28	29	286	4	319	52	12	29	93	14	219	80	313	753
Grand Total	2	23	18	43	50	655	7	712	98	20	38	156	19	486	162	667	1578
Apprch %	4.7	53.5	41.9		7	92	1		62.8	12.8	24.4		2.8	72.9	24.3		
Total %	0.1	1.5	1.1	2.7	3.2	41.5	0.4	45.1	6.2	1.3	2.4	9.9	1.2	30.8	10.3	42.3	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	1	2	3	**133**	**1**	**137**	11	**3**	1	15	**3**	62	21	86	**240**
07:30 AM	**1**	3	**4**	8	6	107	0	113	**15**	3	2	20	0	76	20	96	237
07:45 AM	0	2	0	2	7	59	1	67	11	1	5	17	2	**100**	**31**	**133**	219
08:00 AM	1	**6**	3	**10**	**14**	71	0	85	12	3	**16**	**31**	3	83	26	112	238
Total Volume	2	12	8	22	30	370	2	402	49	10	24	83	8	321	98	427	934
% App. Total	9.1	54.5	36.4		7.5	92	0.5		59	12	28.9		1.9	75.2	23		
PHF	.500	.500	.500	.550	.536	.695	.500	.734	.817	.833	.375	.669	.667	.803	.790	.803	.973

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	1	1	2	3	**133**	**1**	**137**	11	**3**	1	15	**3**	62	21	86
+15 mins.	**1**	3	**4**	8	6	107	0	113	**15**	3	2	20	0	76	20	96
+30 mins.	0	2	0	2	7	59	1	67	11	1	5	17	2	**100**	**31**	**133**
+45 mins.	1	**6**	3	**10**	**14**	71	0	85	12	3	**16**	**31**	3	83	26	112
Total Volume	2	12	8	22	30	370	2	402	49	10	24	83	8	321	98	427
% App. Total	9.1	54.5	36.4		7.5	92	0.5		59	12	28.9		1.9	75.2	23	
PHF	.500	.500	.500	.550	.536	.695	.500	.734	.817	.833	.375	.669	.667	.803	.790	.803

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

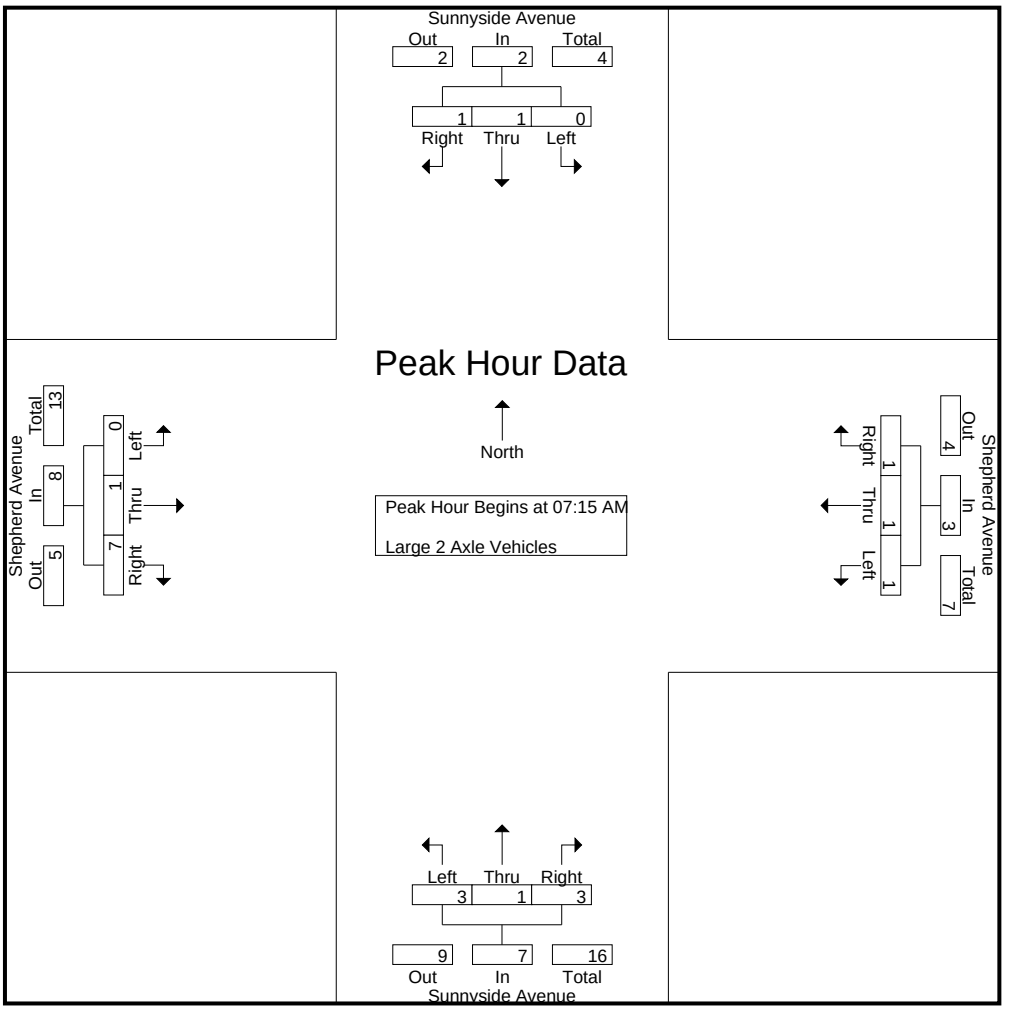
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	1	0	1	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	1	1	2	5
07:30 AM	0	1	0	1	1	0	0	1	1	1	0	2	0	0	3	3	7
07:45 AM	0	0	1	1	0	1	1	2	1	0	0	1	0	0	3	3	7
Total	0	1	1	2	1	4	1	6	3	1	3	7	0	2	7	9	24
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	1	3	4	6
08:30 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	1	3
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	1	0	1	0	2	0	2	3	0	0	3	0	2	4	6	12
Grand Total	0	2	1	3	1	6	1	8	6	1	3	10	0	4	11	15	36
Apprch %	0	66.7	33.3		12.5	75	12.5		60	10	30		0	26.7	73.3		
Total %	0	5.6	2.8	8.3	2.8	16.7	2.8	22.2	16.7	2.8	8.3	27.8	0	11.1	30.6	41.7	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	**1**	1	2	5
07:30 AM	0	**1**	0	**1**	**1**	0	0	1	**1**	**1**	0	2	0	0	**3**	**3**	**7**
07:45 AM	0	0	**1**	1	0	**1**	**1**	**2**	1	0	0	1	0	0	3	3	7
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	1	1	2	1	1	1	3	3	1	3	7	0	1	7	8	20
% App. Total	0	50	50		33.3	33.3	33.3		42.9	14.3	42.9		0	12.5	87.5		
PHF	.000	.250	.250	.500	.250	.250	.250	.375	.750	.250	.250	.583	.000	.250	.583	.667	.714

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	**1**	1	2
+15 mins.	0	**1**	0	**1**	**1**	0	0	1	**1**	**1**	0	2	0	0	**3**	**3**
+30 mins.	0	0	**1**	1	0	**1**	**1**	**2**	1	0	0	1	0	0	3	3
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	1	1	2	1	1	1	3	3	1	3	7	0	1	7	8
% App. Total	0	50	50		33.3	33.3	33.3		42.9	14.3	42.9		0	12.5	87.5	
PHF	.000	.250	.250	.500	.250	.250	.250	.375	.750	.250	.250	.583	.000	.250	.583	.667

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

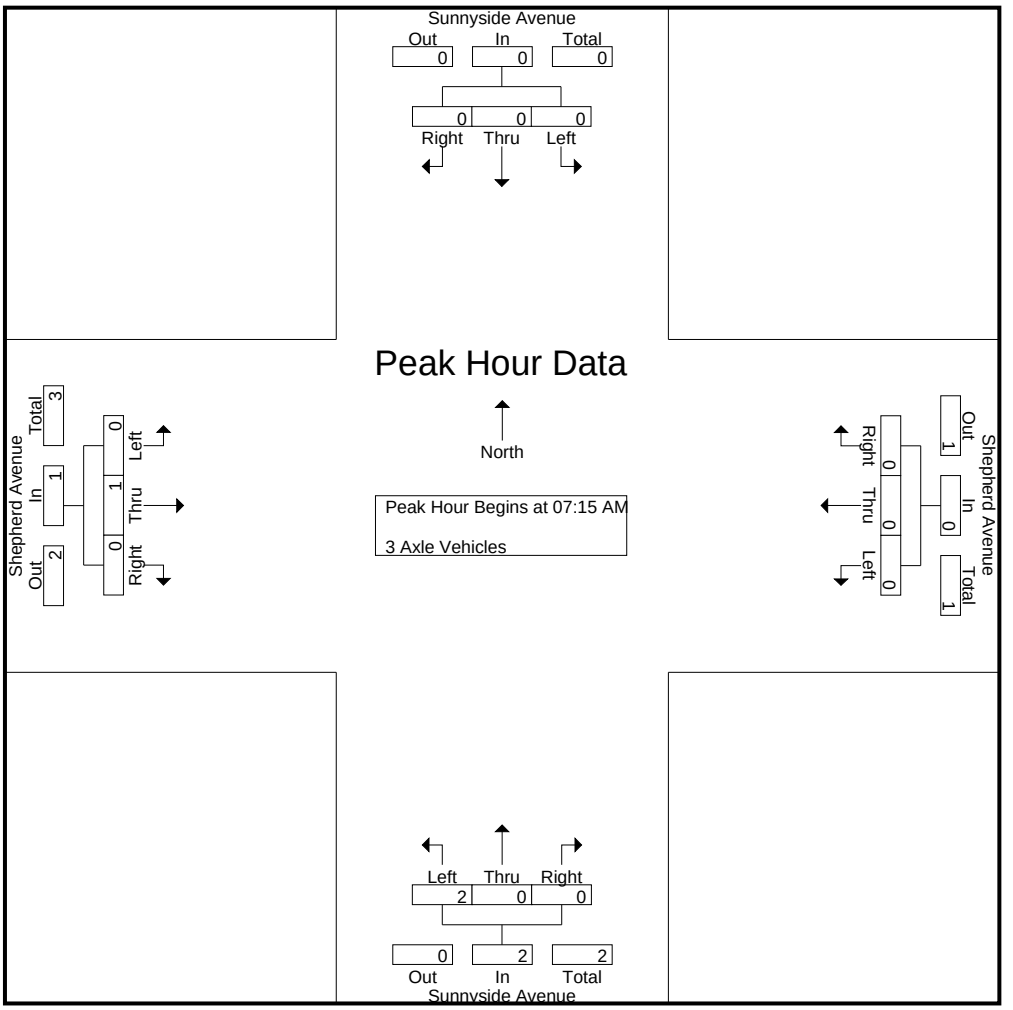
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	1	0	1	2	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	3	3	5
Total	0	0	0	0	0	0	0	0	3	0	0	3	0	2	4	6	9
Grand Total	0	0	0	0	0	1	0	1	4	0	1	5	0	2	4	6	12
Apprch %	0	0	0		0	100	0		80	0	20		0	33.3	66.7		
Total %	0	0	0	0	0	8.3	0	8.3	33.3	0	8.3	41.7	0	16.7	33.3	50	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	**1**	0	**1**	**2**
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	1	3
% App. Total	0	0	0		0	0	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.250	.000	.250	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	**1**	0	**1**
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	1
% App. Total	0	0	0		0	0	0		100	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.000	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

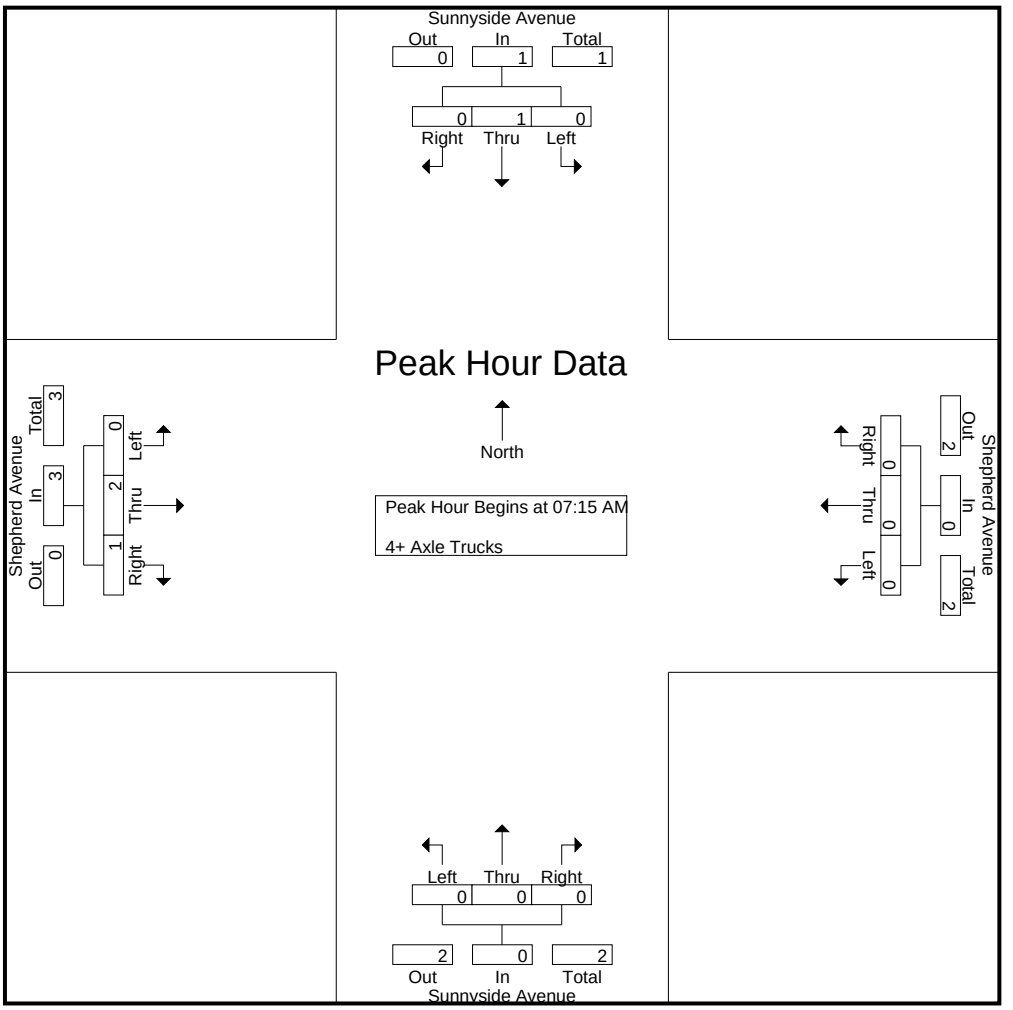
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	2	2	4
Grand Total	0	2	0	2	0	0	0	0	0	1	0	1	0	2	2	4	7
Apprch %	0	100	0		0	0	0		0	100	0		0	50	50		
Total %	0	28.6	0	28.6	0	0	0	0	0	14.3	0	14.3	0	28.6	28.6	57.1	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	**2**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	2	1	3	4
% App. Total	0	100	0		0	0	0		0	0	0		0	66.7	33.3		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.375	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	2	1	3
% App. Total	0	100	0		0	0	0		0	0	0		0	66.7	33.3	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

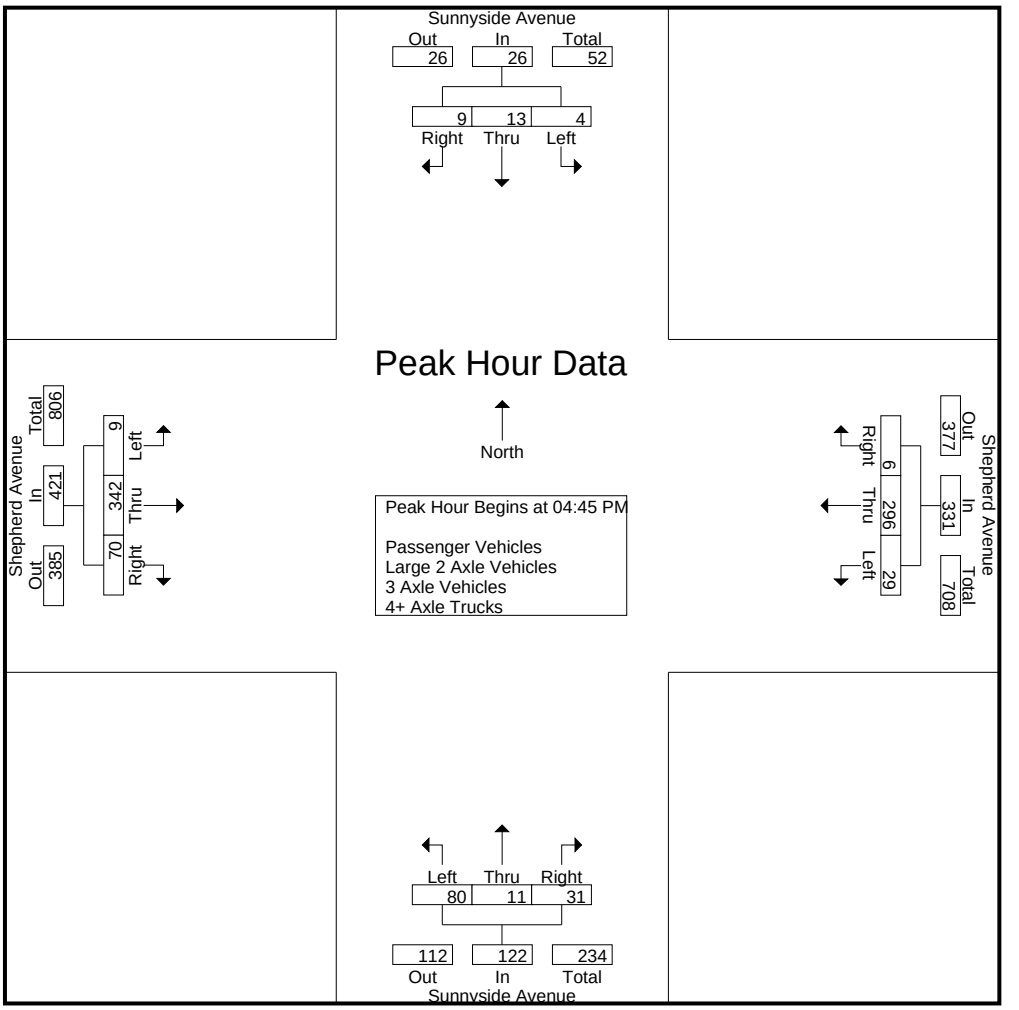
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	4	3	10	5	71	0	76	11	3	10	24	3	67	15	85	195
04:15 PM	0	2	4	6	4	77	0	81	19	1	10	30	4	67	18	89	206
04:30 PM	3	3	4	10	7	68	1	76	16	5	6	27	3	65	12	80	193
04:45 PM	0	3	2	5	6	66	1	73	23	1	12	36	2	80	21	103	217
Total	6	12	13	31	22	282	2	306	69	10	38	117	12	279	66	357	811
05:00 PM	2	3	2	7	6	68	2	76	23	4	8	35	2	86	17	105	223
05:15 PM	0	5	2	7	10	82	1	93	19	5	4	28	4	92	15	111	239
05:30 PM	2	2	3	7	7	80	2	89	15	1	7	23	1	84	17	102	221
05:45 PM	1	1	1	3	4	70	0	74	14	4	6	24	6	80	20	106	207
Total	5	11	8	24	27	300	5	332	71	14	25	110	13	342	69	424	890
Grand Total	11	23	21	55	49	582	7	638	140	24	63	227	25	621	135	781	1701
Apprch %	20	41.8	38.2		7.7	91.2	1.1		61.7	10.6	27.8		3.2	79.5	17.3		
Total %	0.6	1.4	1.2	3.2	2.9	34.2	0.4	37.5	8.2	1.4	3.7	13.3	1.5	36.5	7.9	45.9	
Passenger Vehicles	11	23	20	54	48	578	7	633	139	24	61	224	25	615	130	770	1681
% Passenger Vehicles	100	100	95.2	98.2	98	99.3	100	99.2	99.3	100	96.8	98.7	100	99	96.3	98.6	98.8
Large 2 Axle Vehicles	0	0	1	1	1	4	0	5	1	0	2	3	0	6	5	11	20
% Large 2 Axle Vehicles	0	0	4.8	1.8	2	0.7	0	0.8	0.7	0	3.2	1.3	0	1	3.7	1.4	1.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	3	2	5	6	66	1	73	**23**	1	**12**	**36**	2	80	**21**	103	217
05:00 PM	**2**	3	2	**7**	6	68	**2**	76	23	4	8	35	2	86	17	105	223
05:15 PM	0	**5**	2	7	**10**	**82**	1	**93**	19	**5**	4	28	**4**	**92**	15	**111**	**239**
05:30 PM	2	2	**3**	7	7	80	2	89	15	1	7	23	1	84	17	102	221
Total Volume	4	13	9	26	29	296	6	331	80	11	31	122	9	342	70	421	900
% App. Total	15.4	50	34.6		8.8	89.4	1.8		65.6	9	25.4		2.1	81.2	16.6		
PHF	.500	.650	.750	.929	.725	.902	.750	.890	.870	.550	.646	.847	.563	.929	.833	.948	.941

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				05:00 PM			
+0 mins.	**3**	**4**	3	**10**	6	68	**2**	76	19	1	10	30	2	86	17	105
+15 mins.	0	2	**4**	6	**10**	**82**	1	**93**	16	**5**	6	27	4	**92**	15	**111**
+30 mins.	3	3	4	10	7	80	2	89	**23**	1	**12**	**36**	1	84	17	102
+45 mins.	0	3	2	5	4	70	0	74	23	4	8	35	**6**	80	**20**	106
Total Volume	6	12	13	31	27	300	5	332	81	11	36	128	13	342	69	424
% App. Total	19.4	38.7	41.9		8.1	90.4	1.5		63.3	8.6	28.1		3.1	80.7	16.3	
PHF	.500	.750	.813	.775	.675	.915	.625	.892	.880	.550	.750	.889	.542	.929	.863	.955

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

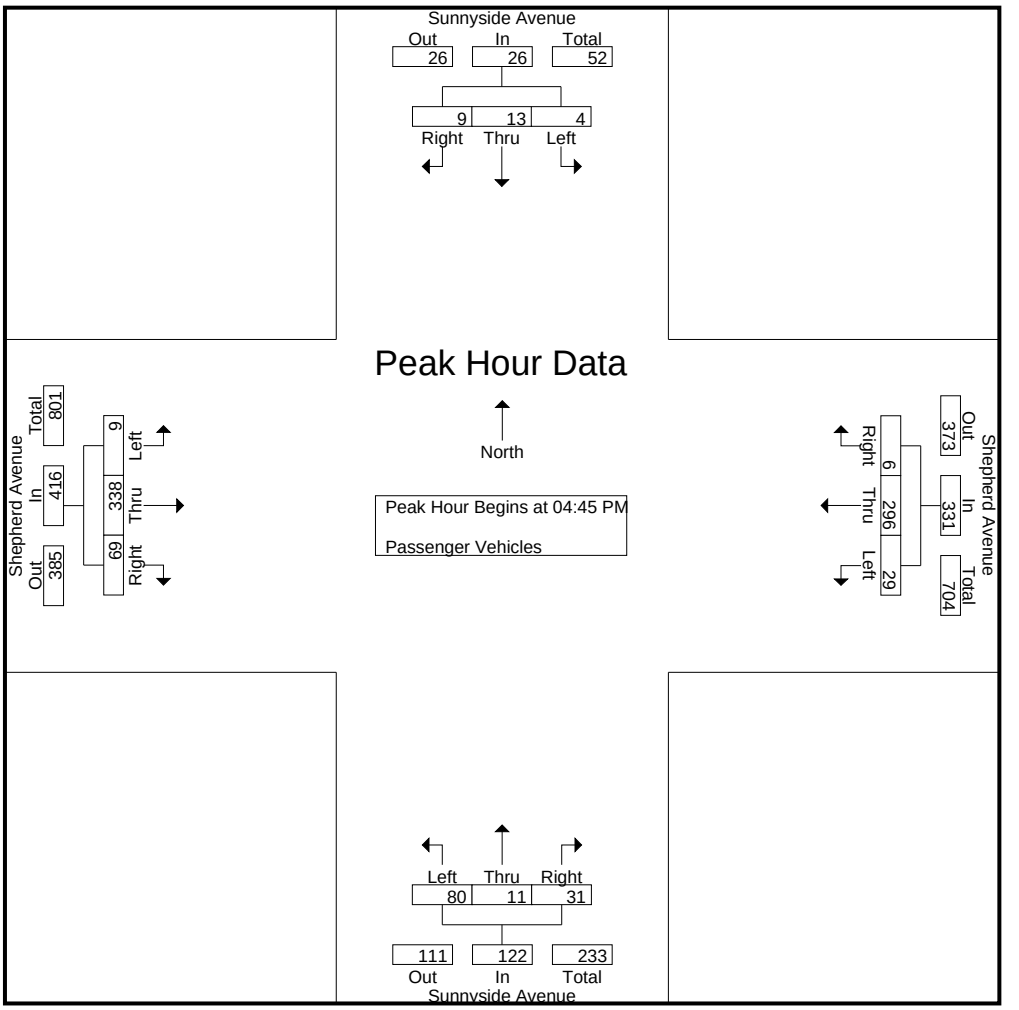
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	4	2	9	4	68	0	72	10	3	10	23	3	66	13	82	186
04:15 PM	0	2	4	6	4	76	0	80	19	1	10	30	4	66	16	86	202
04:30 PM	3	3	4	10	7	68	1	76	16	5	5	26	3	65	12	80	192
04:45 PM	0	3	2	5	6	66	1	73	23	1	12	36	2	78	20	100	214
Total	6	12	12	30	21	278	2	301	68	10	37	115	12	275	61	348	794
05:00 PM	2	3	2	7	6	68	2	76	23	4	8	35	2	86	17	105	223
05:15 PM	0	5	2	7	10	82	1	93	19	5	4	28	4	91	15	110	238
05:30 PM	2	2	3	7	7	80	2	89	15	1	7	23	1	83	17	101	220
05:45 PM	1	1	1	3	4	70	0	74	14	4	5	23	6	80	20	106	206
Total	5	11	8	24	27	300	5	332	71	14	24	109	13	340	69	422	887
Grand Total	11	23	20	54	48	578	7	633	139	24	61	224	25	615	130	770	1681
Apprch %	20.4	42.6	37		7.6	91.3	1.1		62.1	10.7	27.2		3.2	79.9	16.9		
Total %	0.7	1.4	1.2	3.2	2.9	34.4	0.4	37.7	8.3	1.4	3.6	13.3	1.5	36.6	7.7	45.8	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	3	2	5	6	66	1	73	**23**	1	**12**	**36**	2	78	**20**	100	214
05:00 PM	**2**	3	2	**7**	6	68	**2**	76	23	4	8	35	2	86	17	105	223
05:15 PM	0	**5**	2	7	**10**	**82**	1	**93**	19	**5**	4	28	**4**	**91**	15	**110**	**238**
05:30 PM	2	2	**3**	7	7	80	2	89	15	1	7	23	1	83	17	101	220
Total Volume	4	13	9	26	29	296	6	331	80	11	31	122	9	338	69	416	895
% App. Total	15.4	50	34.6		8.8	89.4	1.8		65.6	9	25.4		2.2	81.2	16.6		
PHF	.500	.650	.750	.929	.725	.902	.750	.890	.870	.550	.646	.847	.563	.929	.863	.945	.940

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	3	2	5	6	66	1	73	**23**	1	**12**	**36**	2	78	**20**	100
+15 mins.	**2**	3	2	**7**	6	68	**2**	76	23	4	8	35	2	86	17	105
+30 mins.	0	**5**	2	7	**10**	**82**	1	**93**	19	**5**	4	28	**4**	**91**	15	**110**
+45 mins.	2	2	**3**	7	7	80	2	89	15	1	7	23	1	83	17	101
Total Volume	4	13	9	26	29	296	6	331	80	11	31	122	9	338	69	416
% App. Total	15.4	50	34.6		8.8	89.4	1.8		65.6	9	25.4		2.2	81.2	16.6	
PHF	.500	.650	.750	.929	.725	.902	.750	.890	.870	.550	.646	.847	.563	.929	.863	.945

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

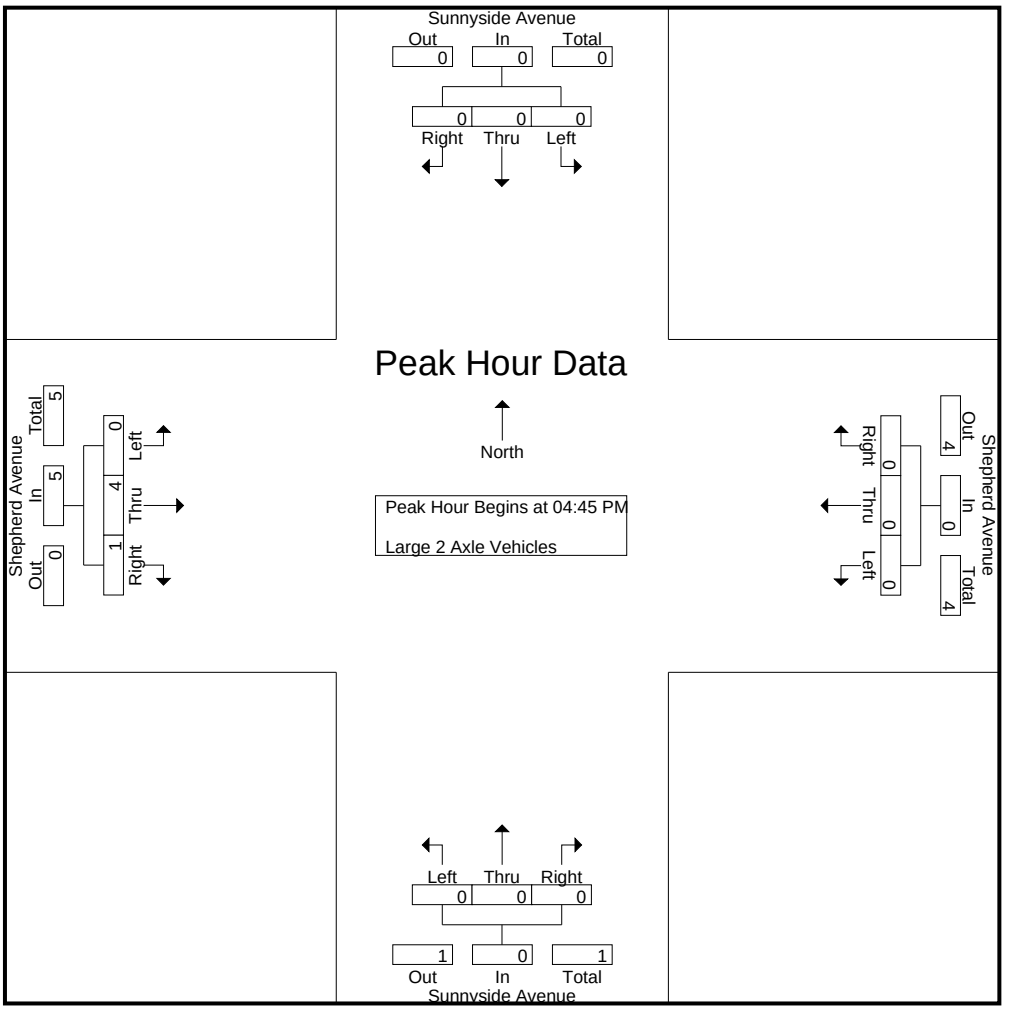
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	1	3	0	4	1	0	0	1	0	1	2	3	9
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	2	3	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
Total	0	0	1	1	1	4	0	5	1	0	1	2	0	4	5	9	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	3
Grand Total	0	0	1	1	1	4	0	5	1	0	2	3	0	6	5	11	20
Apprch %	0	0	100		20	80	0		33.3	0	66.7		0	54.5	45.5		
Total %	0	0	5	5	5	20	0	25	5	0	10	15	0	30	25	55	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**1**	**3**	**3**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	5
% App. Total	0	0	0		0	0	0		0	0	0		0	80	20		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.417	.417

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**1**	**3**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5
% App. Total	0	0	0		0	0	0		0	0	0		0	80	20	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.417

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

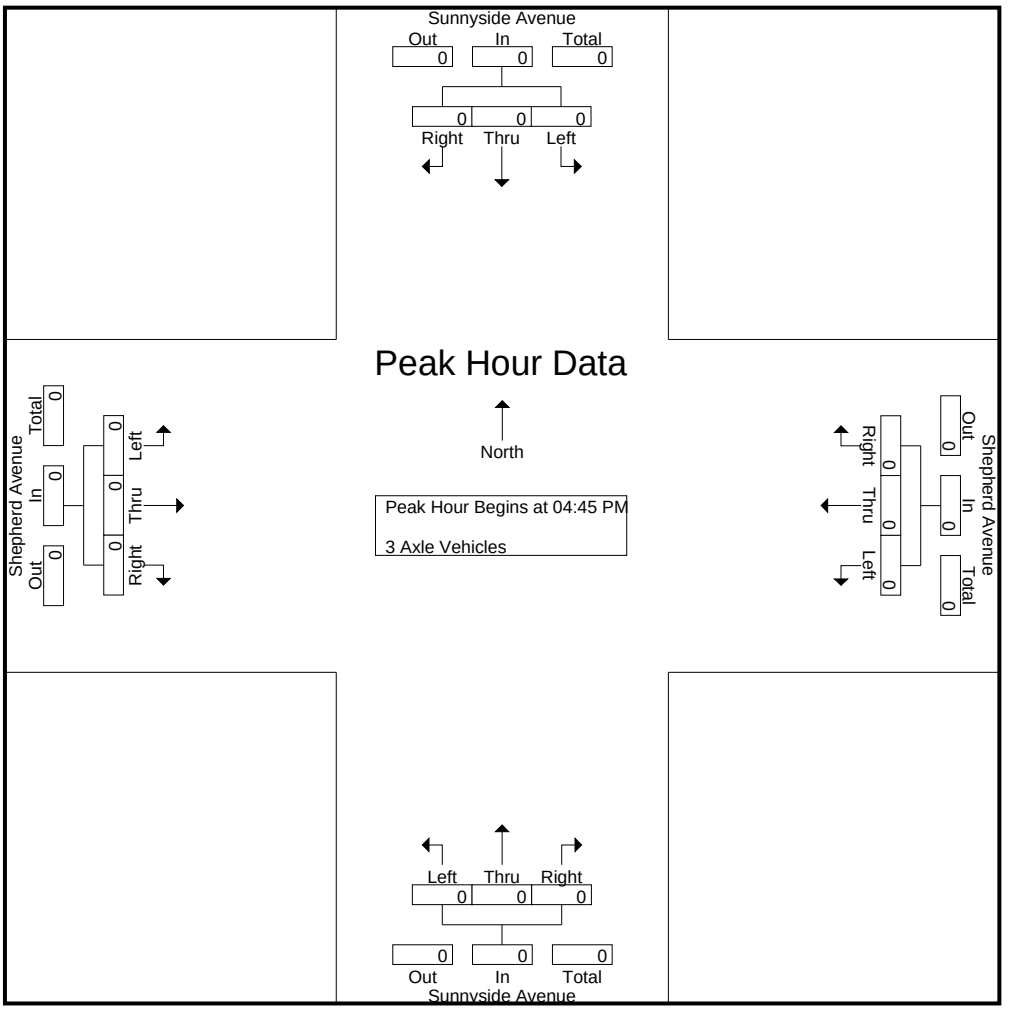
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

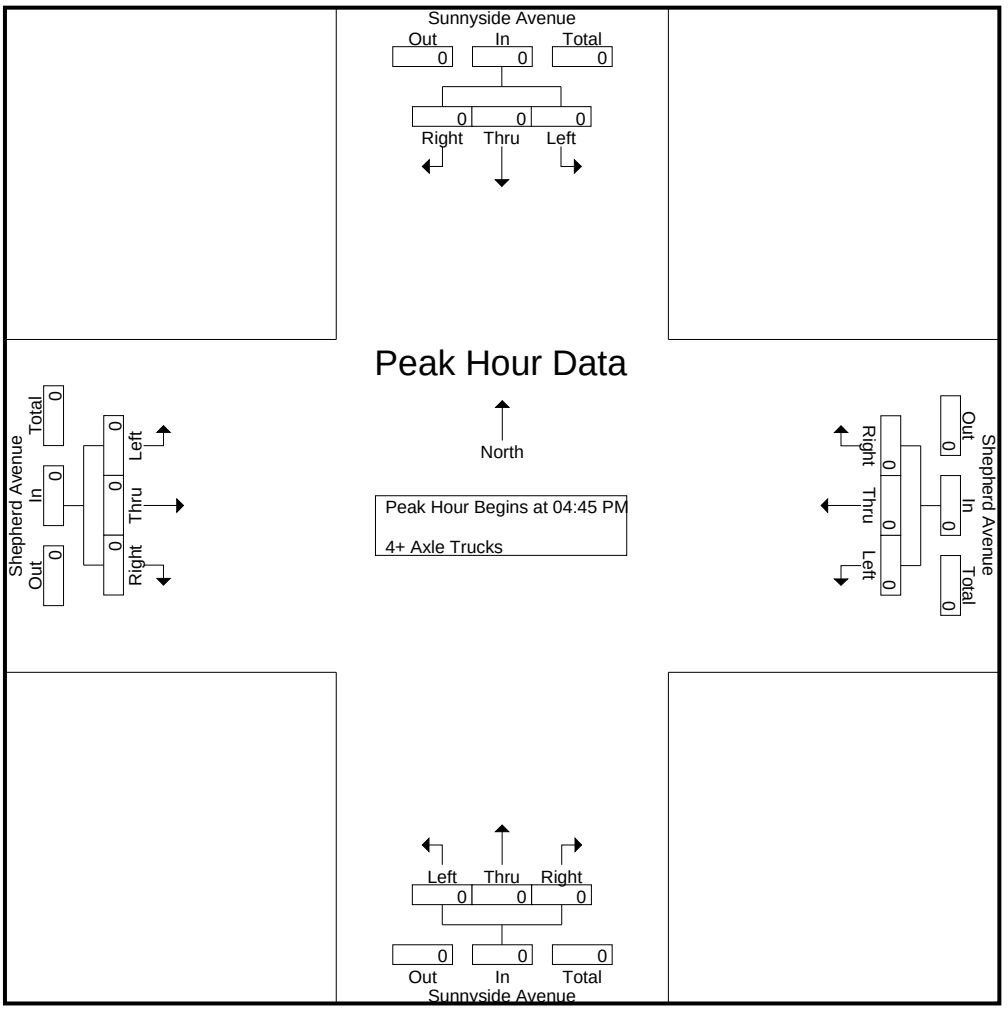
	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Sunnyside Avenue Southbound				Shepherd Avenue Westbound				Sunnyside Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 16_CVS_Sun_SHep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Sunnyside Avenue	East Leg Shepherd Avenue	South Leg Sunnyside Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	1	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	2	2	4	2	10
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	2	4	3	12

	North Leg Sunnyside Avenue	East Leg Shepherd Avenue	South Leg Sunnyside Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Sunnyside Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Sunnyside Avenue			Westbound Shepherd Avenue			Northbound Sunnyside Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	1	3
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
7:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	1	1	0	0	0	1	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	1	0	0	0	0	1	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	4	1	2	0	1	0	2	1	12

	Southbound Sunnyside Avenue			Westbound Shepherd Avenue			Northbound Sunnyside Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	0	0	0	0	1	1	0	4

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

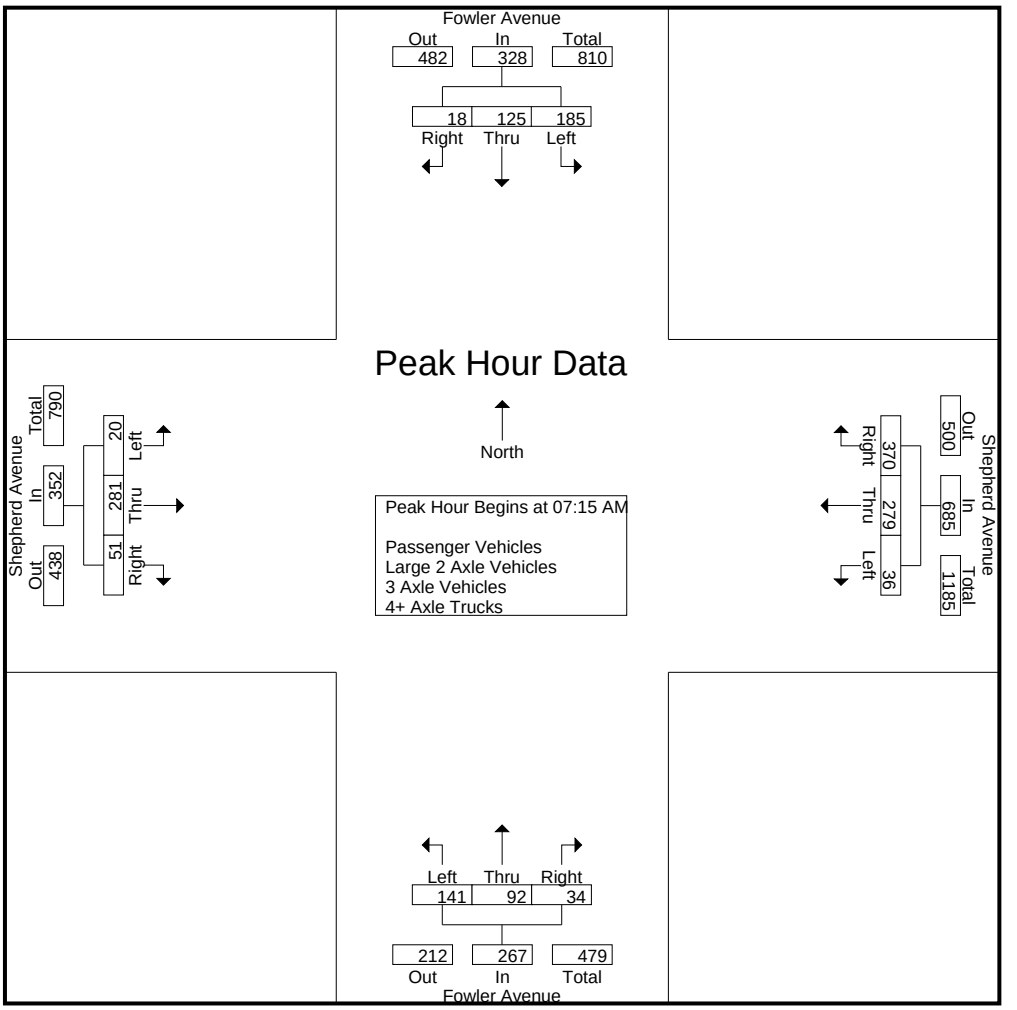
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	34	23	5	62	3	58	62	123	23	14	2	39	1	28	2	31	255
07:15 AM	21	36	6	63	11	91	93	195	55	25	8	88	2	47	10	59	405
07:30 AM	38	30	1	69	8	81	133	222	31	17	6	54	5	63	12	80	425
07:45 AM	74	35	6	115	9	45	100	154	26	26	6	58	2	81	13	96	423
Total	167	124	18	309	31	275	388	694	135	82	22	239	10	219	37	266	1508
08:00 AM	52	24	5	81	8	62	44	114	29	24	14	67	11	90	16	117	379
08:15 AM	42	27	8	77	8	68	35	111	27	17	13	57	4	39	11	54	299
08:30 AM	23	24	2	49	7	54	33	94	26	23	5	54	3	35	11	49	246
08:45 AM	18	25	5	48	13	54	29	96	19	10	4	33	5	36	8	49	226
Total	135	100	20	255	36	238	141	415	101	74	36	211	23	200	46	269	1150
Grand Total	302	224	38	564	67	513	529	1109	236	156	58	450	33	419	83	535	2658
Apprch %	53.5	39.7	6.7		6	46.3	47.7		52.4	34.7	12.9		6.2	78.3	15.5		
Total %	11.4	8.4	1.4	21.2	2.5	19.3	19.9	41.7	8.9	5.9	2.2	16.9	1.2	15.8	3.1	20.1	
Passenger Vehicles	286	220	36	542	67	505	510	1082	234	147	57	438	32	408	82	522	2584
% Passenger Vehicles	94.7	98.2	94.7	96.1	100	98.4	96.4	97.6	99.2	94.2	98.3	97.3	97	97.4	98.8	97.6	97.2
Large 2 Axle Vehicles	9	2	2	13	0	5	7	12	2	1	1	4	1	6	1	8	37
% Large 2 Axle Vehicles	3	0.9	5.3	2.3	0	1	1.3	1.1	0.8	0.6	1.7	0.9	3	1.4	1.2	1.5	1.4
3 Axle Vehicles	3	0	0	3	0	3	8	11	0	4	0	4	0	3	0	3	21
% 3 Axle Vehicles	1	0	0	0.5	0	0.6	1.5	1	0	2.6	0	0.9	0	0.7	0	0.6	0.8
4+ Axle Trucks	4	2	0	6	0	0	4	4	0	4	0	4	0	2	0	2	16
% 4+ Axle Trucks	1.3	0.9	0	1.1	0	0	0.8	0.4	0	2.6	0	0.9	0	0.5	0	0.4	0.6

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	21	**36**	**6**	63	**11**	**91**	93	195	**55**	25	8	**88**	2	47	10	59	405
07:30 AM	38	30	1	69	8	81	**133**	**222**	31	17	6	54	5	63	12	80	**425**
07:45 AM	**74**	35	6	**115**	9	45	100	154	26	**26**	6	58	2	81	13	96	423
08:00 AM	52	24	5	81	8	62	44	114	29	24	**14**	67	**11**	**90**	**16**	**117**	379
Total Volume	185	125	18	328	36	279	370	685	141	92	34	267	20	281	51	352	1632
% App. Total	56.4	38.1	5.5		5.3	40.7	54		52.8	34.5	12.7		5.7	79.8	14.5		
PHF	.625	.868	.750	.713	.818	.766	.695	.771	.641	.885	.607	.759	.455	.781	.797	.752	.960

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	38	30	1	69	3	58	62	123	**55**	25	8	**88**	2	47	10	59
+15 mins.	**74**	**35**	6	**115**	**11**	**91**	93	195	31	17	6	54	5	63	12	80
+30 mins.	52	24	5	81	8	81	**133**	**222**	26	**26**	6	58	2	81	13	96
+45 mins.	42	27	**8**	77	9	45	100	154	29	24	**14**	67	**11**	**90**	**16**	**117**
Total Volume	206	116	20	342	31	275	388	694	141	92	34	267	20	281	51	352
% App. Total	60.2	33.9	5.8		4.5	39.6	55.9		52.8	34.5	12.7		5.7	79.8	14.5	
PHF	.696	.829	.625	.743	.705	.755	.729	.782	.641	.885	.607	.759	.455	.781	.797	.752

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

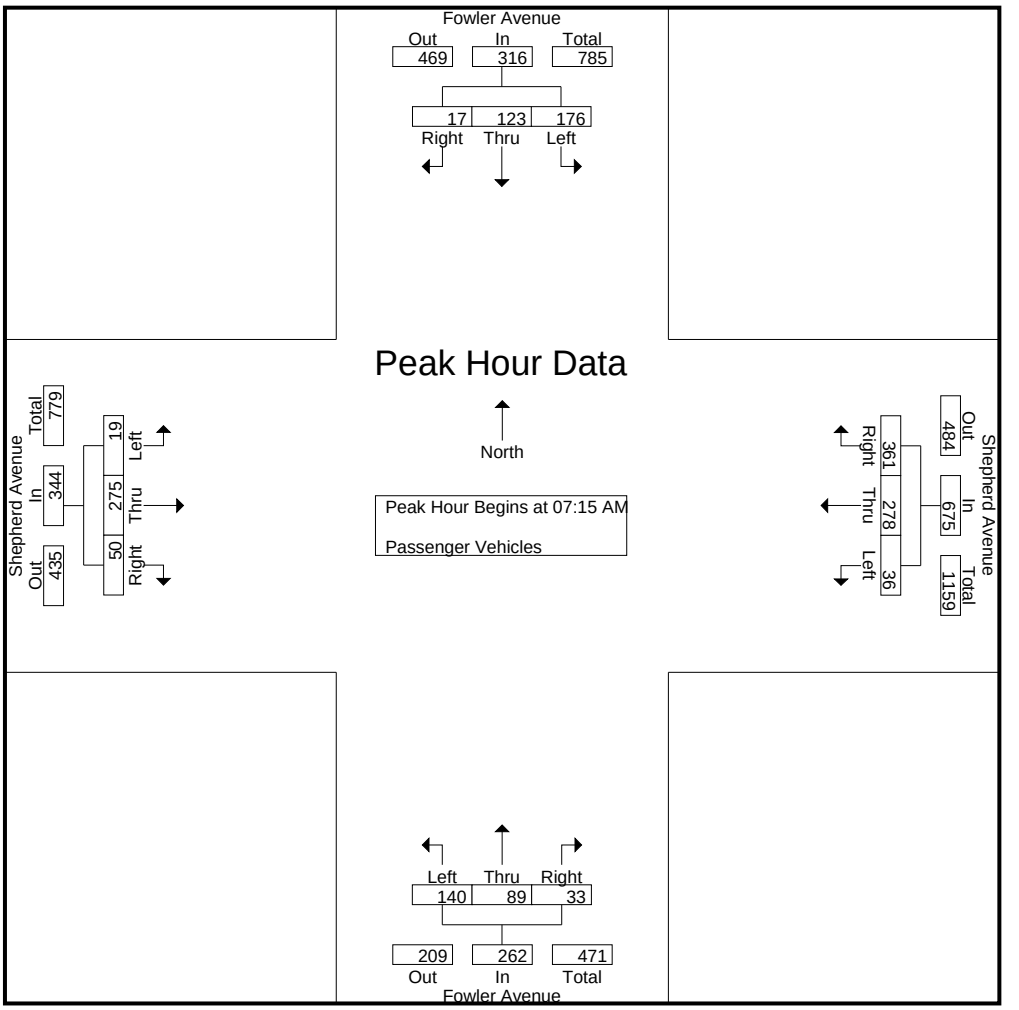
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	34	23	4	61	3	56	59	118	22	14	2	38	1	26	2	29	246
07:15 AM	19	36	6	61	11	91	89	191	55	25	8	88	1	45	9	55	395
07:30 AM	37	28	1	66	8	81	133	222	30	17	6	53	5	62	12	79	420
07:45 AM	70	35	5	110	9	44	99	152	26	23	6	55	2	80	13	95	412
Total	160	122	16	298	31	272	380	683	133	79	22	234	9	213	36	258	1473
08:00 AM	50	24	5	79	8	62	40	110	29	24	13	66	11	88	16	115	370
08:15 AM	40	27	8	75	8	65	33	106	27	13	13	53	4	38	11	53	287
08:30 AM	22	24	2	48	7	54	32	93	26	21	5	52	3	35	11	49	242
08:45 AM	14	23	5	42	13	52	25	90	19	10	4	33	5	34	8	47	212
Total	126	98	20	244	36	233	130	399	101	68	35	204	23	195	46	264	1111
Grand Total	286	220	36	542	67	505	510	1082	234	147	57	438	32	408	82	522	2584
Apprch %	52.8	40.6	6.6		6.2	46.7	47.1		53.4	33.6	13		6.1	78.2	15.7		
Total %	11.1	8.5	1.4	21	2.6	19.5	19.7	41.9	9.1	5.7	2.2	17	1.2	15.8	3.2	20.2	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	19	**36**	**6**	61	**11**	**91**	89	191	**55**	**25**	8	**88**	1	45	9	55	395
07:30 AM	37	28	1	66	8	81	**133**	**222**	30	17	6	53	5	62	12	79	**420**
07:45 AM	**70**	35	5	**110**	9	44	99	152	26	23	6	55	2	80	13	95	412
08:00 AM	50	24	5	79	8	62	40	110	29	24	**13**	66	**11**	**88**	**16**	**115**	370
Total Volume	176	123	17	316	36	278	361	675	140	89	33	262	19	275	50	344	1597
% App. Total	55.7	38.9	5.4		5.3	41.2	53.5		53.4	34	12.6		5.5	79.9	14.5		
PHF	.629	.854	.708	.718	.818	.764	.679	.760	.636	.890	.635	.744	.432	.781	.781	.748	.951

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	19	**36**	**6**	61	**11**	**91**	89	191	**55**	**25**	8	**88**	1	45	9	55
+15 mins.	37	28	1	66	8	81	**133**	**222**	30	17	6	53	5	62	12	79
+30 mins.	**70**	35	5	**110**	9	44	99	152	26	23	6	55	2	80	13	95
+45 mins.	50	24	5	79	8	62	40	110	29	24	**13**	66	**11**	**88**	**16**	**115**
Total Volume	176	123	17	316	36	278	361	675	140	89	33	262	19	275	50	344
% App. Total	55.7	38.9	5.4		5.3	41.2	53.5		53.4	34	12.6		5.5	79.9	14.5	
PHF	.629	.854	.708	.718	.818	.764	.679	.760	.636	.890	.635	.744	.432	.781	.781	.748

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

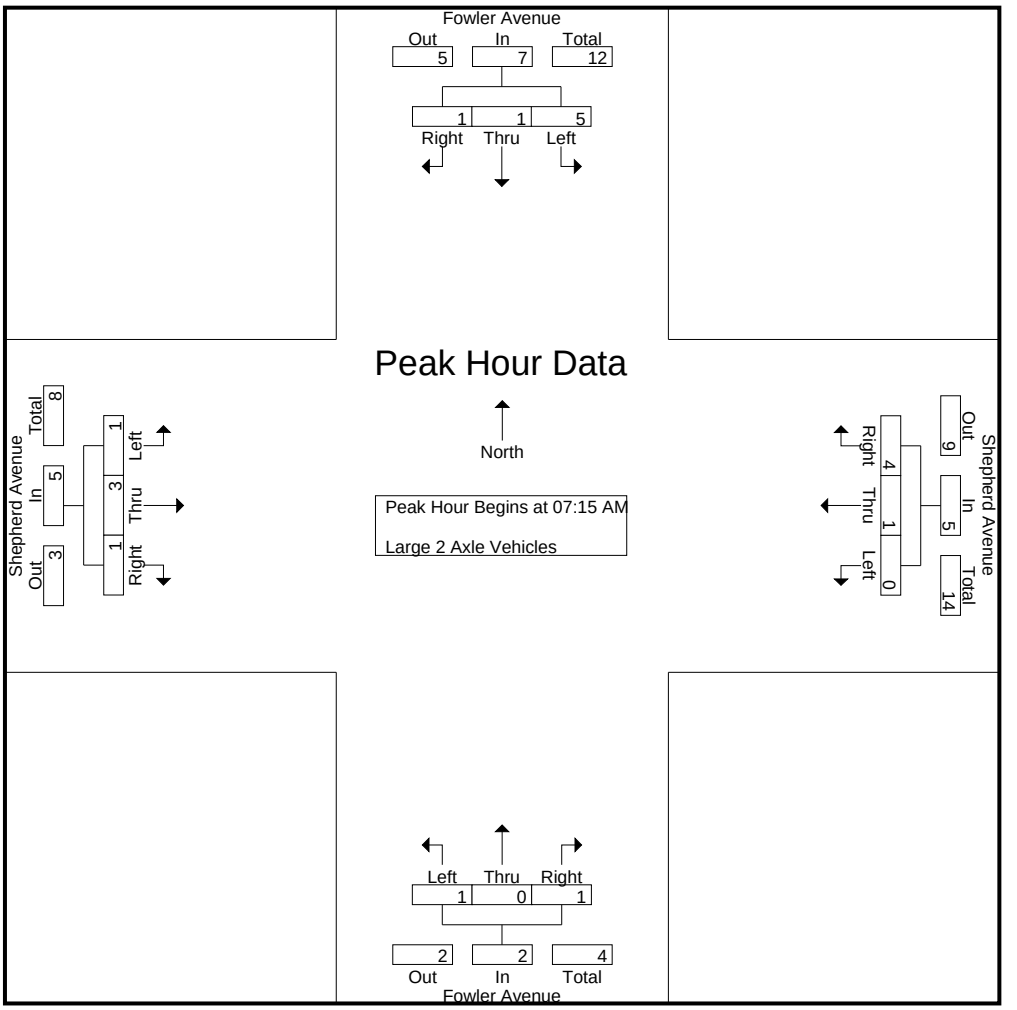
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	1	1	0	1	1	2	1	0	0	1	0	1	0	1	5
07:15 AM	2	0	0	2	0	0	3	3	0	0	0	0	1	2	1	4	9
07:30 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	1	0	1	3
07:45 AM	1	0	1	2	0	1	0	1	0	0	0	0	0	0	0	0	3
Total	3	1	2	6	0	2	4	6	2	0	0	2	1	4	1	6	20
08:00 AM	2	0	0	2	0	0	1	1	0	0	1	1	0	0	0	0	4
08:15 AM	2	0	0	2	0	1	1	2	0	0	0	0	0	1	0	1	5
08:30 AM	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
08:45 AM	1	1	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5
Total	6	1	0	7	0	3	3	6	0	1	1	2	0	2	0	2	17
Grand Total	9	2	2	13	0	5	7	12	2	1	1	4	1	6	1	8	37
Apprch %	69.2	15.4	15.4		0	41.7	58.3		50	25	25		12.5	75	12.5		
Total %	24.3	5.4	5.4	35.1	0	13.5	18.9	32.4	5.4	2.7	2.7	10.8	2.7	16.2	2.7	21.6	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**2**	0	0	**2**	0	0	**3**	**3**	0	0	0	0	**1**	**2**	**1**	**4**	**9**
07:30 AM	0	**1**	0	1	0	0	0	0	**1**	0	0	**1**	0	1	0	1	3
07:45 AM	1	0	**1**	2	0	**1**	0	1	0	0	0	0	0	0	0	0	3
08:00 AM	2	0	0	2	0	0	1	1	0	0	**1**	1	0	0	0	0	4
Total Volume	5	1	1	7	0	1	4	5	1	0	1	2	1	3	1	5	19
% App. Total	71.4	14.3	14.3		0	20	80		50	0	50		20	60	20		
PHF	.625	.250	.250	.875	.000	.250	.333	.417	.250	.000	.250	.500	.250	.375	.250	.313	.528

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	**2**	0	0	**2**	0	0	**3**	**3**	0	0	0	0	**1**	**2**	**1**	**4**
+15 mins.	0	**1**	0	1	0	0	0	0	**1**	0	0	**1**	0	1	0	1
+30 mins.	1	0	**1**	2	0	**1**	0	1	0	0	0	0	0	0	0	0
+45 mins.	2	0	0	2	0	0	1	1	0	0	**1**	1	0	0	0	0
Total Volume	5	1	1	7	0	1	4	5	1	0	1	2	1	3	1	5
% App. Total	71.4	14.3	14.3		0	20	80		50	0	50		20	60	20	
PHF	.625	.250	.250	.875	.000	.250	.333	.417	.250	.000	.250	.500	.250	.375	.250	.313

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

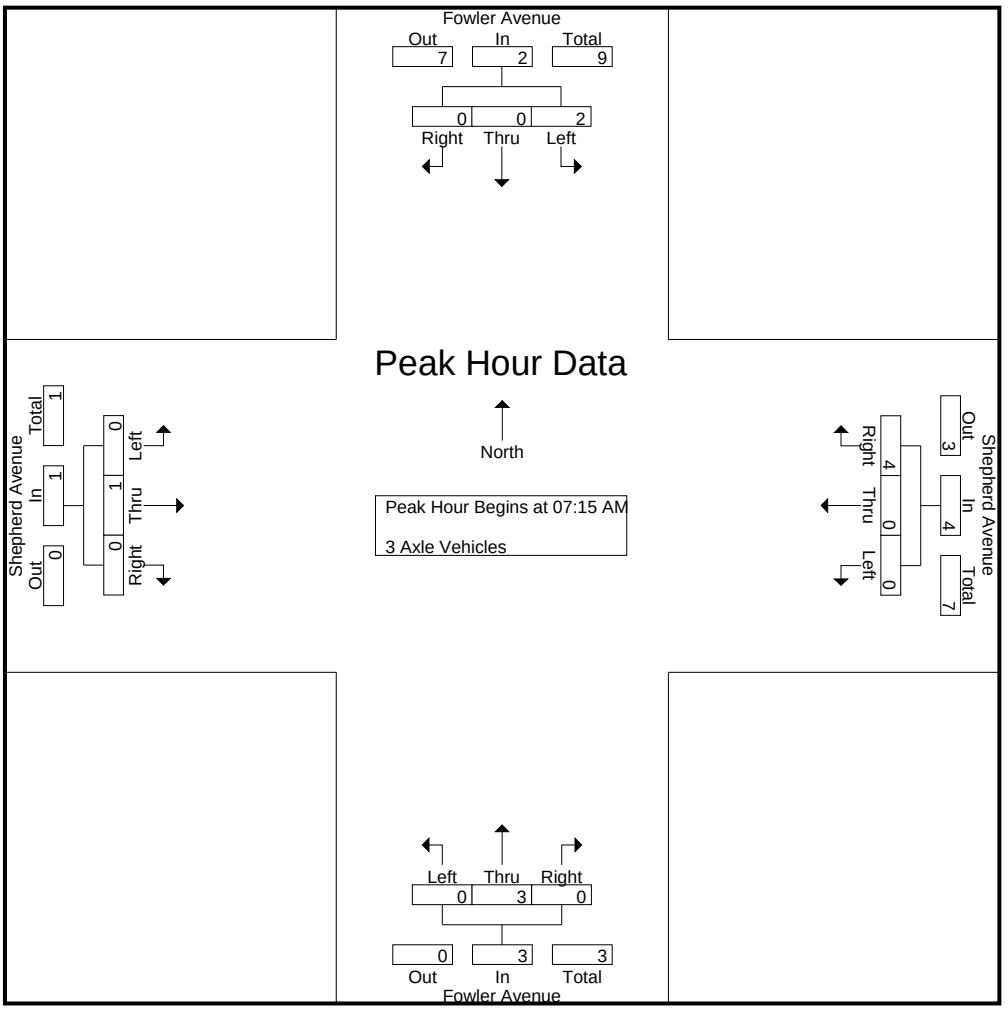
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	3
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	2	0	0	2	0	0	1	1	0	3	0	3	0	0	0	0	6
Total	2	0	0	2	0	1	3	4	0	3	0	3	0	1	0	1	10
08:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	3
08:15 AM	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:45 AM	1	0	0	1	0	0	2	2	0	0	0	0	0	1	0	1	4
Total	1	0	0	1	0	2	5	7	0	1	0	1	0	2	0	2	11
Grand Total	3	0	0	3	0	3	8	11	0	4	0	4	0	3	0	3	21
Apprch %	100	0	0		0	27.3	72.7		0	100	0		0	100	0		
Total %	14.3	0	0	14.3	0	14.3	38.1	52.4	0	19	0	19	0	14.3	0	14.3	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	**2**	0	0	**2**	0	0	1	1	0	**3**	0	**3**	0	0	0	0	**6**
08:00 AM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	**1**	0	**1**	3
Total Volume	2	0	0	2	0	0	4	4	0	3	0	3	0	1	0	1	10
% App. Total	100	0	0		0	0	100		0	100	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.000	.500	.500	.000	.250	.000	.250	.000	.250	.000	.250	.417

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	**2**	0	0	**2**	0	0	1	1	0	**3**	0	**3**	0	0	0	0
+45 mins.	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	**1**	0	**1**
Total Volume	2	0	0	2	0	0	4	4	0	3	0	3	0	1	0	1
% App. Total	100	0	0		0	0	100		0	100	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.000	.500	.500	.000	.250	.000	.250	.000	.250	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

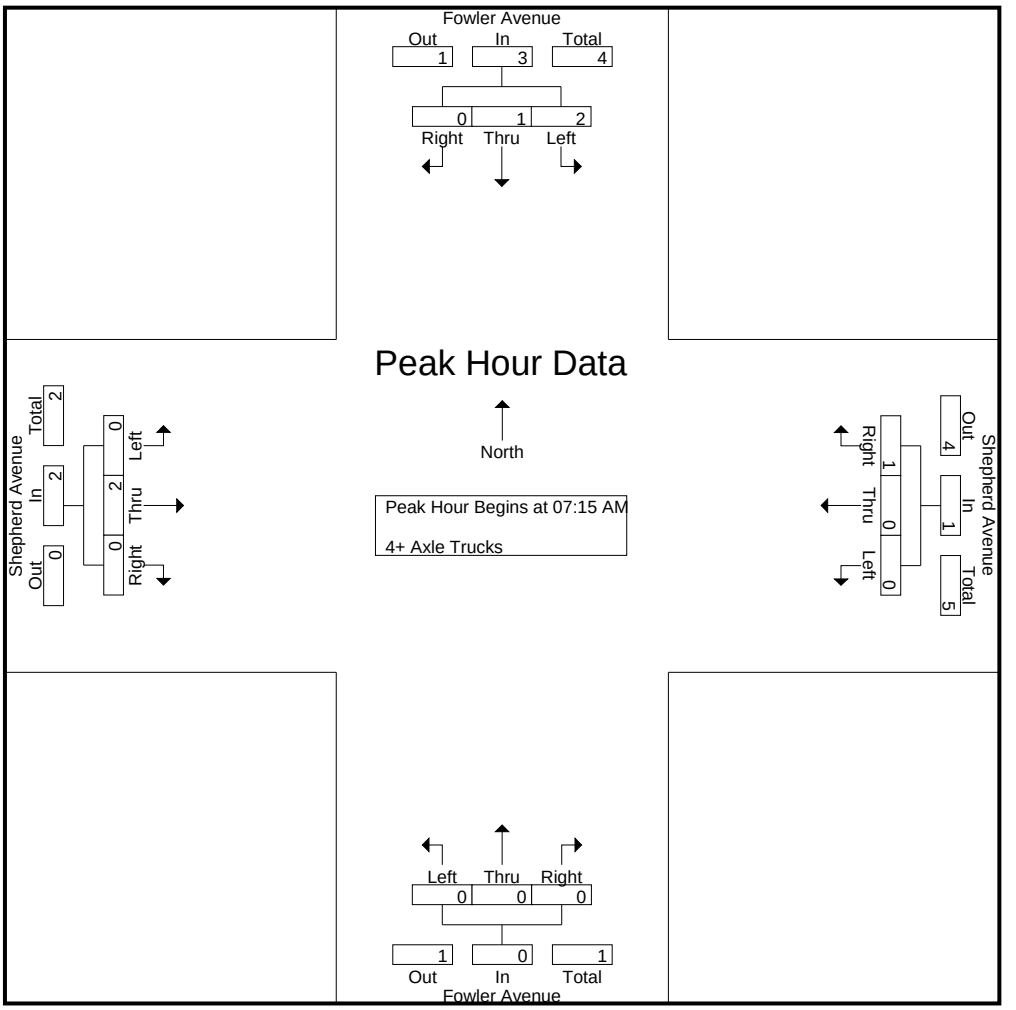
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	2	1	0	3	0	0	1	1	0	0	0	0	0	1	0	1	5
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	2	1	0	3	0	0	2	2	0	0	0	0	0	0	0	0	5
Total	2	1	0	3	0	0	3	3	0	4	0	4	0	1	0	1	11
Grand Total	4	2	0	6	0	0	4	4	0	4	0	4	0	2	0	2	16
Apprch %	66.7	33.3	0		0	0	100		0	100	0		0	100	0		
Total %	25	12.5	0	37.5	0	0	25	25	0	25	0	25	0	12.5	0	12.5	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	**1**	**1**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	**2**
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	**1**	2
08:00 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1	0	1	2
Total Volume	2	1	0	3	0	0	1	1	0	0	0	0	0	2	0	2	6
% App. Total	66.7	33.3	0		0	0	100		0	0	0		0	100	0		
PHF	.500	.250	.000	.375	.000	.000	.250	.250	.000	.000	.000	.000	.000	.500	.000	.500	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep AMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	**1**	**1**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	**1**
+45 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1	0	1
Total Volume	2	1	0	3	0	0	1	1	0	0	0	0	0	2	0	2
% App. Total	66.7	33.3	0		0	0	100		0	0	0		0	100	0	
PHF	.500	.250	.000	.375	.000	.000	.250	.250	.000	.000	.000	.000	.000	.500	.000	.500

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

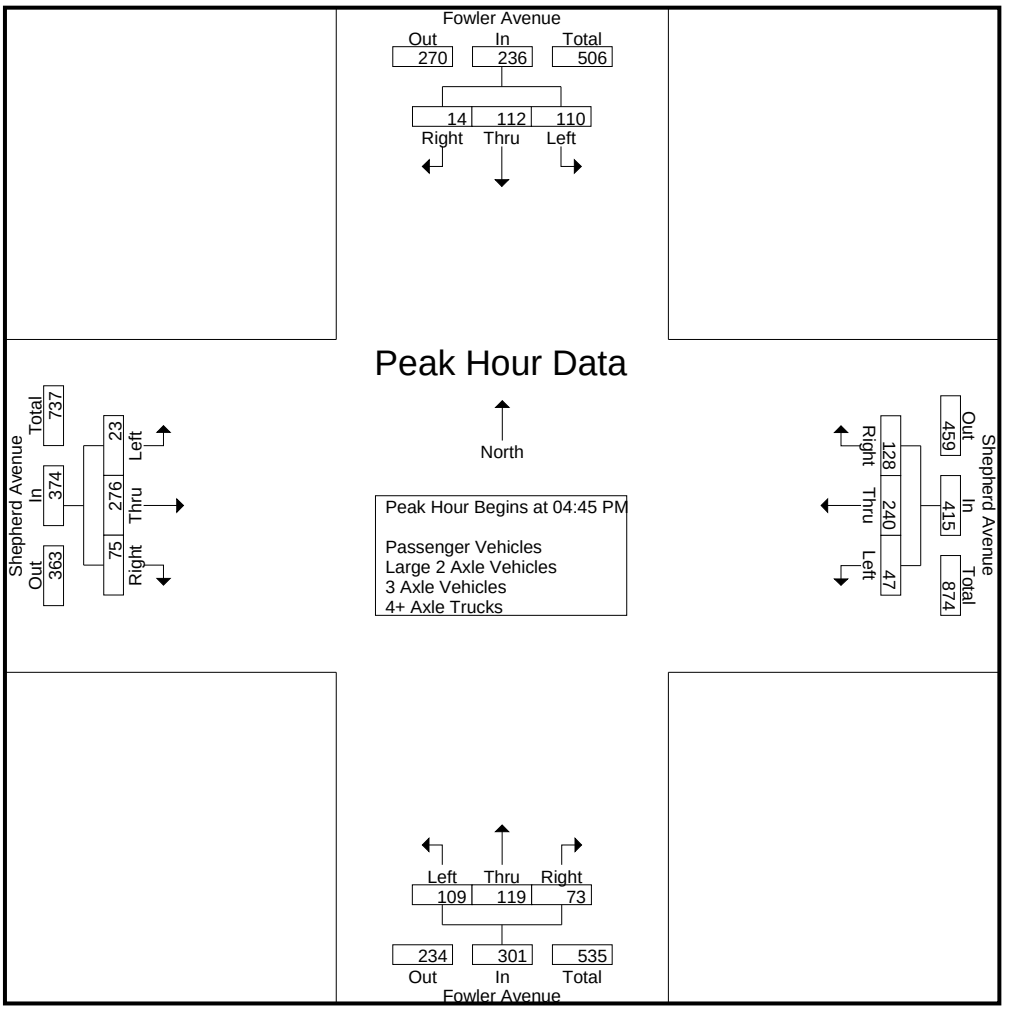
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	32	36	8	76	5	55	33	93	27	36	18	81	8	63	23	94	344
04:15 PM	37	36	1	74	15	60	21	96	25	32	13	70	1	56	16	73	313
04:30 PM	24	31	6	61	13	58	38	109	14	27	18	59	3	54	16	73	302
04:45 PM	26	22	6	54	15	54	33	102	22	26	16	64	5	62	20	87	307
Total	119	125	21	265	48	227	125	400	88	121	65	274	17	235	75	327	1266
05:00 PM	26	29	2	57	9	62	30	101	25	38	19	82	7	71	26	104	344
05:15 PM	29	31	5	65	18	64	37	119	22	29	20	71	4	73	15	92	347
05:30 PM	29	30	1	60	5	60	28	93	40	26	18	84	7	70	14	91	328
05:45 PM	27	18	2	47	17	60	27	104	18	37	11	66	7	59	18	84	301
Total	111	108	10	229	49	246	122	417	105	130	68	303	25	273	73	371	1320
Grand Total	230	233	31	494	97	473	247	817	193	251	133	577	42	508	148	698	2586
Apprch %	46.6	47.2	6.3		11.9	57.9	30.2		33.4	43.5	23.1		6	72.8	21.2		
Total %	8.9	9	1.2	19.1	3.8	18.3	9.6	31.6	7.5	9.7	5.1	22.3	1.6	19.6	5.7	27	
Passenger Vehicles	226	228	30	484	96	470	243	809	192	246	133	571	41	504	144	689	2553
% Passenger Vehicles	98.3	97.9	96.8	98	99	99.4	98.4	99	99.5	98	100	99	97.6	99.2	97.3	98.7	98.7
Large 2 Axle Vehicles	4	3	1	8	1	3	2	6	1	4	0	5	1	3	4	8	27
% Large 2 Axle Vehicles	1.7	1.3	3.2	1.6	1	0.6	0.8	0.7	0.5	1.6	0	0.9	2.4	0.6	2.7	1.1	1
3 Axle Vehicles	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
% 3 Axle Vehicles	0	0.9	0	0.4	0	0	0	0	0	0	0	0	0	0.2	0	0.1	0.1
4+ Axle Trucks	0	0	0	0	0	0	2	2	0	1	0	1	0	0	0	0	3
% 4+ Axle Trucks	0	0	0	0	0	0	0.8	0.2	0	0.4	0	0.2	0	0	0	0	0.1

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	26	22	**6**	54	15	54	33	102	22	26	16	64	5	62	20	87	307
05:00 PM	26	29	2	57	9	62	30	101	25	**38**	19	82	**7**	71	**26**	**104**	344
05:15 PM	**29**	**31**	5	**65**	**18**	**64**	**37**	**119**	22	29	**20**	71	4	**73**	15	92	**347**
05:30 PM	29	30	1	60	5	60	28	93	**40**	26	18	**84**	7	70	14	91	328
Total Volume	110	112	14	236	47	240	128	415	109	119	73	301	23	276	75	374	1326
% App. Total	46.6	47.5	5.9		11.3	57.8	30.8		36.2	39.5	24.3		6.1	73.8	20.1		
PHF	.948	.903	.583	.908	.653	.938	.865	.872	.681	.783	.913	.896	.821	.945	.721	.899	.955

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				05:00 PM				04:45 PM			
+0 mins.	32	**36**	**8**	**76**	13	58	**38**	109	25	**38**	19	82	5	62	20	87
+15 mins.	**37**	36	1	74	15	54	33	102	22	29	**20**	71	**7**	71	**26**	**104**
+30 mins.	24	31	6	61	9	62	30	101	**40**	26	18	**84**	4	**73**	15	92
+45 mins.	26	22	6	54	**18**	**64**	37	**119**	18	37	11	66	7	70	14	91
Total Volume	119	125	21	265	55	238	138	431	105	130	68	303	23	276	75	374
% App. Total	44.9	47.2	7.9		12.8	55.2	32		34.7	42.9	22.4		6.1	73.8	20.1	
PHF	.804	.868	.656	.872	.764	.930	.908	.905	.656	.855	.850	.902	.821	.945	.721	.899

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Passenger Vehicles

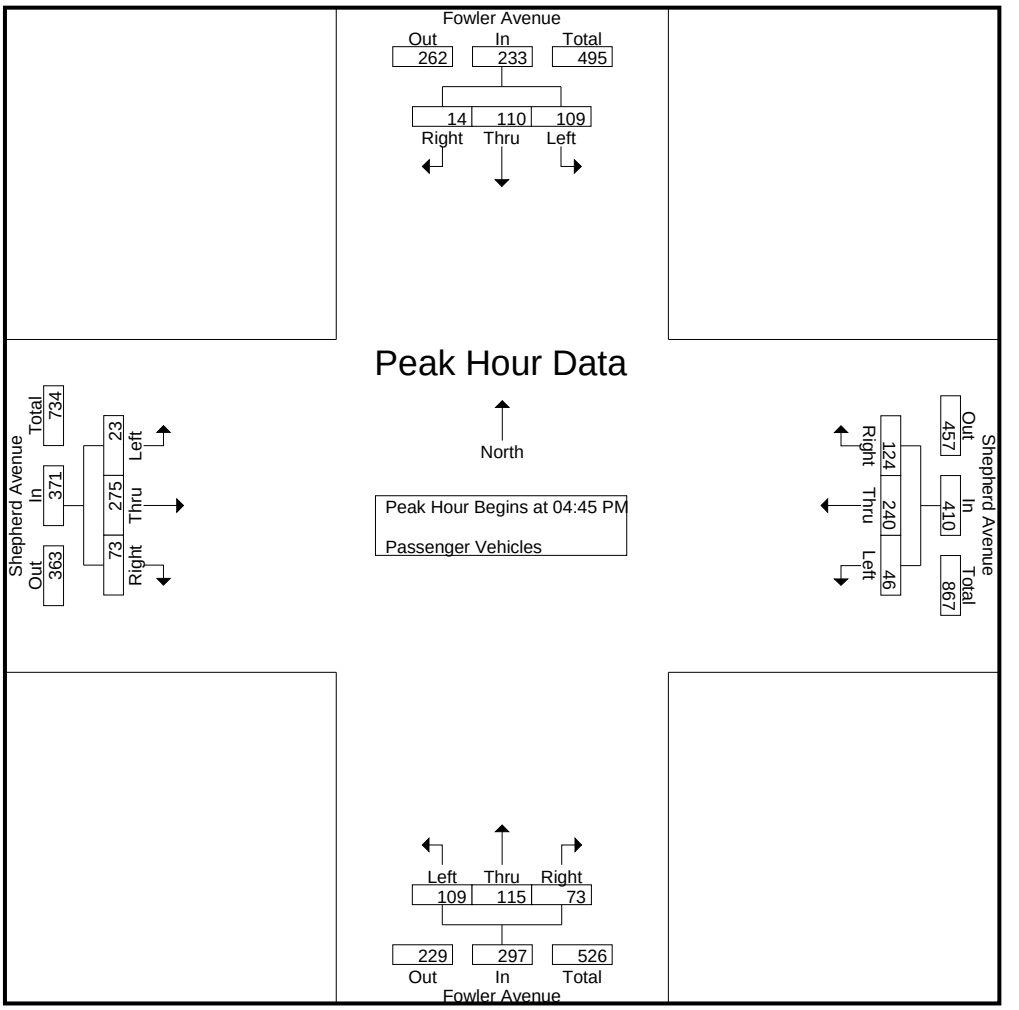
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	31	35	7	73	5	53	33	91	26	35	18	79	8	60	23	91	334
04:15 PM	35	35	1	71	15	59	21	95	25	32	13	70	1	56	15	72	308
04:30 PM	24	31	6	61	13	58	38	109	14	27	18	59	3	54	15	72	301
04:45 PM	26	22	6	54	15	54	33	102	22	26	16	64	5	61	19	85	305
Total	116	123	20	259	48	224	125	397	87	120	65	272	17	231	72	320	1248
05:00 PM	26	29	2	57	9	62	29	100	25	36	19	80	7	71	26	104	341
05:15 PM	28	30	5	63	17	64	35	116	22	27	20	69	4	73	14	91	339
05:30 PM	29	29	1	59	5	60	27	92	40	26	18	84	7	70	14	91	326
05:45 PM	27	17	2	46	17	60	27	104	18	37	11	66	6	59	18	83	299
Total	110	105	10	225	48	246	118	412	105	126	68	299	24	273	72	369	1305
Grand Total	226	228	30	484	96	470	243	809	192	246	133	571	41	504	144	689	2553
Apprch %	46.7	47.1	6.2		11.9	58.1	30		33.6	43.1	23.3		6	73.1	20.9		
Total %	8.9	8.9	1.2	19	3.8	18.4	9.5	31.7	7.5	9.6	5.2	22.4	1.6	19.7	5.6	27	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	26	22	**6**	54	15	54	33	102	22	26	16	64	5	61	19	85	305
05:00 PM	26	29	2	57	9	62	29	100	25	**36**	19	80	**7**	71	**26**	**104**	**341**
05:15 PM	28	**30**	5	**63**	**17**	**64**	**35**	**116**	22	27	**20**	69	4	**73**	14	91	339
05:30 PM	**29**	29	1	59	5	60	27	92	**40**	26	18	**84**	7	70	14	91	326
Total Volume	109	110	14	233	46	240	124	410	109	115	73	297	23	275	73	371	1311
% App. Total	46.8	47.2	6		11.2	58.5	30.2		36.7	38.7	24.6		6.2	74.1	19.7		
PHF	.940	.917	.583	.925	.676	.938	.886	.884	.681	.799	.913	.884	.821	.942	.702	.892	.961

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	26	22	**6**	54	15	54	33	102	22	26	16	64	5	61	19	85
+15 mins.	26	29	2	57	9	62	29	100	25	**36**	19	80	**7**	71	**26**	**104**
+30 mins.	28	**30**	5	**63**	**17**	**64**	**35**	**116**	22	27	**20**	69	4	**73**	14	91
+45 mins.	**29**	29	1	59	5	60	27	92	**40**	26	18	**84**	7	70	14	91
Total Volume	109	110	14	233	46	240	124	410	109	115	73	297	23	275	73	371
% App. Total	46.8	47.2	6		11.2	58.5	30.2		36.7	38.7	24.6		6.2	74.1	19.7	
PHF	.940	.917	.583	.925	.676	.938	.886	.884	.681	.799	.913	.884	.821	.942	.702	.892

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

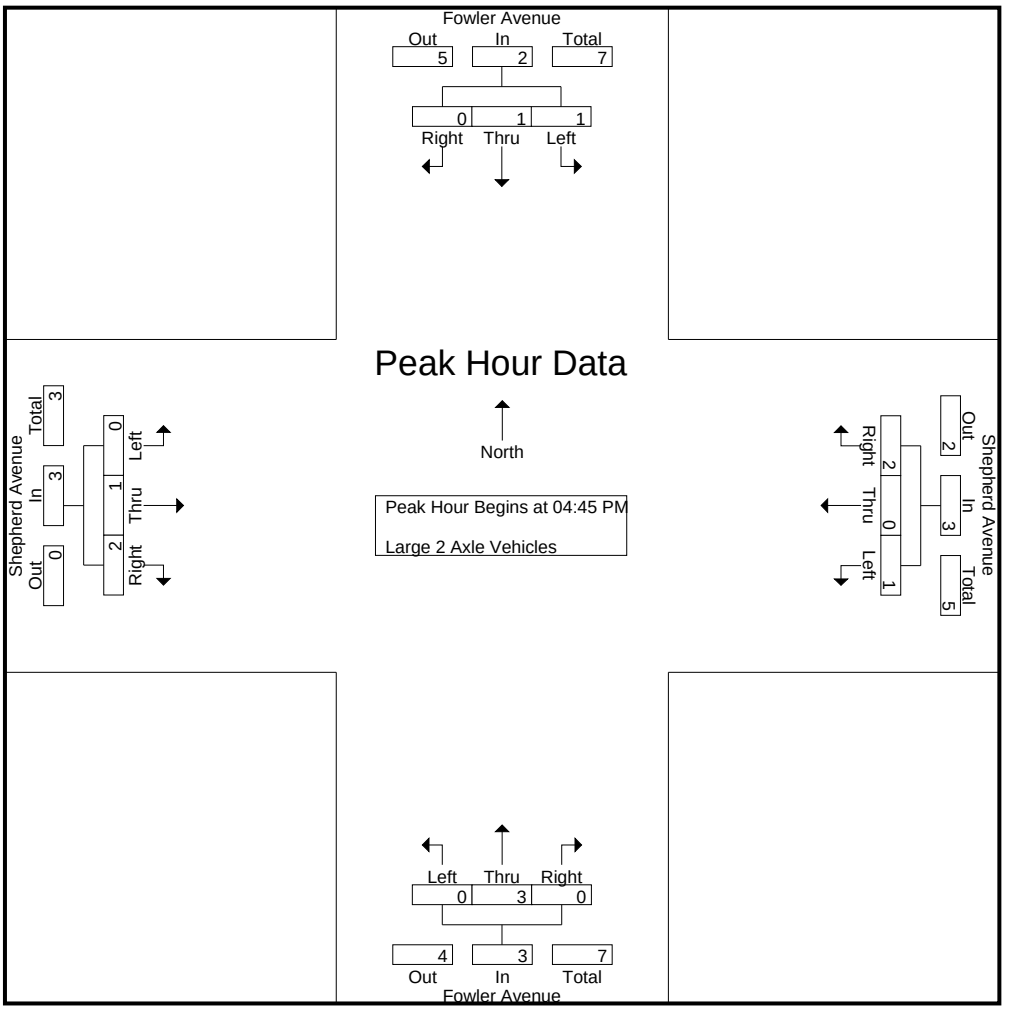
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	1	2	0	2	0	2	1	1	0	2	0	2	0	2	8
04:15 PM	2	1	0	3	0	1	0	1	0	0	0	0	0	0	1	1	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Total	3	1	1	5	0	3	0	3	1	1	0	2	0	3	3	6	16
05:00 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
05:15 PM	1	0	0	1	1	0	1	2	0	2	0	2	0	0	1	1	6
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	1	2	0	3	1	0	2	3	0	3	0	3	1	0	1	2	11
Grand Total	4	3	1	8	1	3	2	6	1	4	0	5	1	3	4	8	27
Apprch %	50	37.5	12.5		16.7	50	33.3		20	80	0		12.5	37.5	50		
Total %	14.8	11.1	3.7	29.6	3.7	11.1	7.4	22.2	3.7	14.8	0	18.5	3.7	11.1	14.8	29.6	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	2
05:00 PM	0	0	0	0	0	0	**1**	1	0	1	0	1	0	0	0	0	2
05:15 PM	**1**	0	0	**1**	**1**	0	1	**2**	0	**2**	0	**2**	0	0	1	1	**6**
05:30 PM	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	1	0	2	1	0	2	3	0	3	0	3	0	1	2	3	11
% App. Total	50	50	0		33.3	0	66.7		0	100	0		0	33.3	66.7		
PHF	.250	.250	.000	.500	.250	.000	.500	.375	.000	.375	.000	.375	.000	.250	.500	.375	.458

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**
+15 mins.	0	0	0	0	0	0	**1**	1	0	1	0	1	0	0	0	0
+30 mins.	**1**	0	0	**1**	**1**	0	1	**2**	0	**2**	0	**2**	0	0	1	1
+45 mins.	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	1	0	2	3	0	3	0	3	0	1	2	3
% App. Total	50	50	0		33.3	0	66.7		0	100	0		0	33.3	66.7	
PHF	.250	.250	.000	.500	.250	.000	.500	.375	.000	.375	.000	.375	.000	.250	.500	.375

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

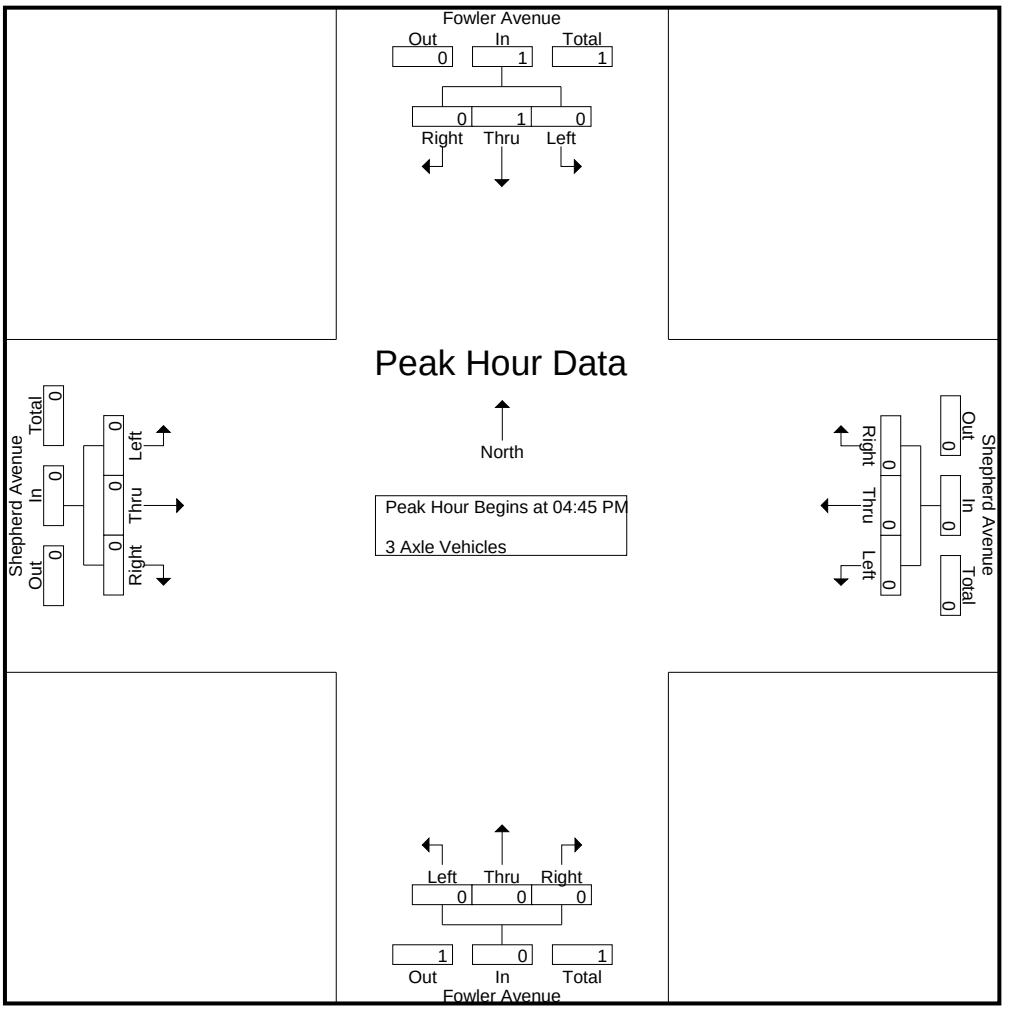
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
Apprch %	0	100	0		0	0	0		0	0	0		0	100	0		
Total %	0	66.7	0	66.7	0	0	0	0	0	0	0	0	0	33.3	0	33.3	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

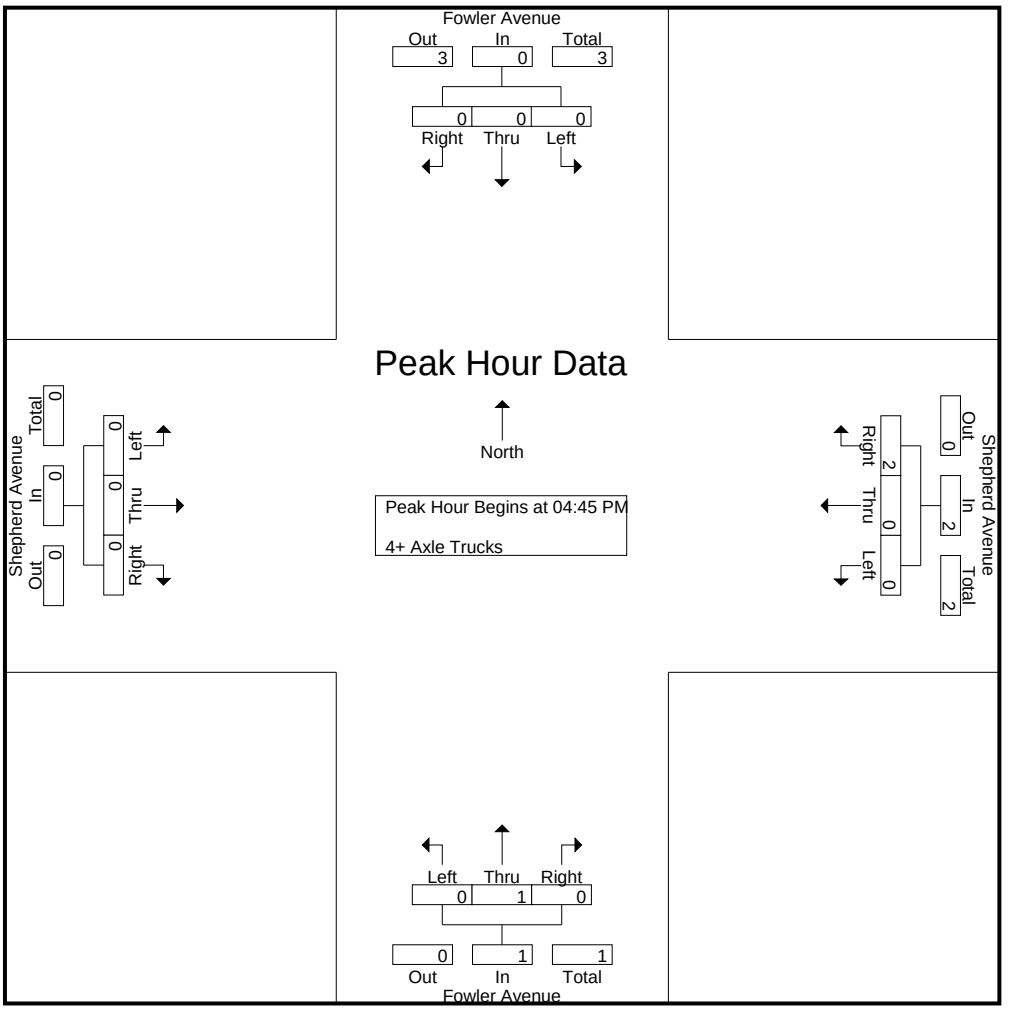
	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	2	0	1	0	1	0	0	0	0	3
Grand Total	0	0	0	0	0	0	2	2	0	1	0	1	0	0	0	0	3
Apprch %	0	0	0		0	0	100		0	100	0		0	0	0		
Total %	0	0	0	0	0	0	66.7	66.7	0	33.3	0	33.3	0	0	0	0	

	Fowler Avenue Southbound				Shepherd Avenue Westbound				Fowler Avenue Northbound				Shepherd Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
05:15 PM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	2	2	0	1	0	1	0	0	0	0	3
% App. Total	0	0	0		0	0	100		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.000	.250	.000	.250	.000	.000	.000	.000	.750

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue
Weather: Clear

File Name : 22_CVS_Fowl_Shep PMC
Site Code : 00322473
Start Date : 5/24/2022
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	0	1	0	1	0	0	0	0
% App. Total	0	0	0		0	0	100		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.000	.250	.000	.250	.000	.000	.000	.000

Location: Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

PEDESTRIANS

	North Leg Fowler Avenue	East Leg Shepherd Avenue	South Leg Fowler Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Fowler Avenue	East Leg Shepherd Avenue	South Leg Fowler Avenue	West Leg Shepherd Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	1	2
TOTAL VOLUMES:	1	0	0	2	3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Clovis
N/S: Fowler Avenue
E/W: Shepherd Avenue

Date: 5/24/2022
Day: Tuesday

BICYCLES

	Southbound Fowler Avenue			Westbound Shepherd Avenue			Northbound Fowler Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
TOTAL VOLUMES:	0	1	0	1	1	0	0	0	0	0	2	0	5

	Southbound Fowler Avenue			Westbound Shepherd Avenue			Northbound Fowler Avenue			Eastbound Shepherd Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
International Avenue
B/ Willow Avenue - Minnewawa Avenue
24 Hour Directional Volume Count

CVS001
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	19			0	11				
12:15		0	9			0	13				
12:30		0	9			0	14				
12:45		1	5	1	42	1	12	1	50	2	92
01:00		0	6			0	15				
01:15		0	12			0	6				
01:30		1	6			1	7				
01:45		1	4	2	28	0	6	1	34	3	62
02:00		0	17			0	7				
02:15		0	9			0	**32**				
02:30		0	**21**			0	**52**				
02:45		0	**100**	0	147	0	**50**	0	141	0	288
03:00		0	**33**			0	**14**				
03:15		0	**22**			1	9				
03:30		0	14			0	14				
03:45		0	16	0	85	0	12	1	49	1	134
04:00		0	14			0	10				
04:15		0	18			0	17				
04:30		1	17			1	26				
04:45		0	23	1	72	1	27	2	80	3	152
05:00		0	9			2	22				
05:15		0	19			1	19				
05:30		6	12			0	21				
05:45		5	15	11	55	2	13	5	75	16	130
06:00		2	18			3	9				
06:15		3	14			12	10				
06:30		8	8			20	19				
06:45		18	18	31	58	19	20	54	58	85	116
07:00		12	14			27	6				
07:15		7	7			**58**	13				
07:30		**26**	7			**95**	8				
07:45		**49**	14	94	42	**116**	11	296	38	390	80
08:00		**60**	4			**58**	9				
08:15		**14**	8			14	15				
08:30		8	3			8	2				
08:45		11	16	93	31	6	8	86	34	179	65
09:00		15	5			6	2				
09:15		19	4			7	4				
09:30		5	4			2	6				
09:45		7	3	46	16	12	4	27	16	73	32
10:00		9	1			12	4				
10:15		10	7			9	3				
10:30		4	2			10	2				
10:45		6	2	29	12	11	1	42	10	71	22
11:00		17	2			7	1				
11:15		11	2			13	0				
11:30		13	0			22	1				
11:45		5	1	46	5	16	1	58	3	104	8
Total		354	593	354	593	573	588	573	588	927	1181
Combined Total		947		947		1161		1161		2108	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	149	-	-	-	327	-	-	-	-	-
P.H.F.		0.621				0.705					
PM Peak	-	-	02:30	-	-	-	02:15	-	-	-	-
Vol.	-	-	176	-	-	-	148	-	-	-	-
P.H.F.			0.440				0.712				
Percentage		37.4%	62.6%			49.4%	50.6%				
ADT/AADT		ADT 2,108		AADT 2,108							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Behymer Avenue
B/ Willow Avenue - Minnewawa Avenue
24 Hour Directional Volume Count

CVS002
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	17			0	14				
12:15		0	28			1	23				
12:30		1	7			3	15				
12:45		0	22	3	74	1	21	5	73	8	147
01:00		1	17			1	20				
01:15		0	21			2	15				
01:30		0	14			0	12				
01:45		0	16	1	68	1	16	4	63	5	131
02:00		0	17			0	20				
02:15		0	13			2	22				
02:30		1	**34**			1	32				
02:45		1	**69**	2	133	0	33	3	107	5	240
03:00		1	**38**			1	37				
03:15		1	**44**			1	31				
03:30		2	28			1	26				
03:45		0	33	4	143	0	27	3	121	7	264
04:00		1	31			1	27				
04:15		1	14			1	20				
04:30		0	21			0	27				
04:45		1	38	3	104	2	**31**	4	105	7	209
05:00		2	19			5	**38**				
05:15		3	24			3	**33**				
05:30		3	21			3	**32**				
05:45		5	24	13	88	9	30	20	133	33	221
06:00		4	21			6	18				
06:15		10	18			8	22				
06:30		8	22			15	17				
06:45		29	19	51	80	20	21	49	78	100	158
07:00		22	19			18	16				
07:15		20	20			**43**	19				
07:30		**43**	14			**42**	12				
07:45		**44**	22	129	75	**50**	18	153	65	282	140
08:00		**54**	10			**54**	11				
08:15		**49**	14			28	9				
08:30		21	12			26	12				
08:45		15	10	139	46	23	4	131	36	270	82
09:00		14	10			13	11				
09:15		12	8			18	6				
09:30		19	7			13	7				
09:45		9	5	54	30	16	7	60	31	114	61
10:00		18	4			12	10				
10:15		13	4			13	7				
10:30		16	7			14	3				
10:45		14	3	61	18	21	7	60	27	121	45
11:00		24	3			11	6				
11:15		11	4			16	5				
11:30		14	2			18	1				
11:45		24	2	73	11	24	2	69	14	142	25
Total		533	870	533	870	561	853	561	853	1094	1723
Combined Total		1403		1403		1414		1414		2817	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	190	-	-	-	189	-	-	-	-	-
P.H.F.		0.880				0.875					
PM Peak	-	-	02:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	185	-	-	-	134	-	-	-	-
P.H.F.			0.670				0.882				
Percentage		38.0%	62.0%			39.7%	60.3%				
ADT/AADT		ADT 2,817		AADT 2,817							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Behymer Avenue
B/ Minnewawa Avenue - Baron Avenue
24 Hour Directional Volume Count

CVS003
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	24			2	29				
12:15		2	29			1	29				
12:30		0	12			4	22				
12:45		0	18	6	83	1	27	8	107	14	190
01:00		4	26			3	31				
01:15		3	37			1	23				
01:30		0	31			0	22				
01:45		2	23	9	117	3	14	7	90	16	207
02:00		3	32			0	25				
02:15		2	19			3	26				
02:30		6	**43**			0	**79**				
02:45		2	**130**	13	224	0	**46**	3	176	16	400
03:00		5	**89**			1	**42**				
03:15		0	**47**			1	**39**				
03:30		2	39			0	31				
03:45		0	54	7	229	0	41	2	153	9	382
04:00		3	61			1	41				
04:15		1	43			2	31				
04:30		3	37			3	46				
04:45		4	49	11	190	4	45	10	163	21	353
05:00		1	42			7	57				
05:15		3	43			8	53				
05:30		7	36			12	36				
05:45		15	41	26	162	14	43	41	189	67	351
06:00		9	40			9	27				
06:15		13	39			24	40				
06:30		22	38			41	29				
06:45		43	28	87	145	42	43	116	139	203	284
07:00		32	26			54	26				
07:15		28	27			**105**	28				
07:30		**54**	19			**142**	22				
07:45		**84**	30	198	102	**127**	24	428	100	626	202
08:00		**79**	17			**80**	20				
08:15		**55**	23			47	16				
08:30		20	22			46	14				
08:45		24	19	178	81	35	12	208	62	386	143
09:00		29	23			25	12				
09:15		24	13			29	14				
09:30		21	12			33	8				
09:45		17	9	91	57	33	8	120	42	211	99
10:00		31	7			23	7				
10:15		24	9			28	12				
10:30		24	10			31	8				
10:45		15	9	94	35	36	5	118	32	212	67
11:00		38	6			15	5				
11:15		26	8			34	4				
11:30		25	2			31	3				
11:45		28	3	117	19	33	4	113	16	230	35
Total		837	1444	837	1444	1174	1269	1174	1269	2011	2713
Combined Total		2281		2281		2443		2443		4724	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	272	-	-	-	454	-	-	-	-	-
P.H.F.		0.810				0.799					
PM Peak	-	-	02:30	-	-	-	02:30	-	-	-	-
Vol.	-	-	309	-	-	-	206	-	-	-	-
P.H.F.			0.594				0.652				
Percentage		36.7%	63.3%			48.1%	51.9%				
ADT/AADT		ADT 4,724		AADT 4,724							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Shepherd Avenue
B/ Willow Avenue - Minnewawa Avenue
24 Hour Directional Volume Count

CVS004
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	85			13	70				
12:15		8	110			10	93				
12:30		10	82			5	90				
12:45		3	105	38	382	6	95	34	348	72	730
01:00		4	90			6	83				
01:15		3	84			3	88				
01:30		5	87			4	69				
01:45		3	89	15	350	6	87	19	327	34	677
02:00		2	92			5	70				
02:15		3	88			0	77				
02:30		4	119			0	83				
02:45		2	122	11	421	1	94	6	324	17	745
03:00		2	108			1	93				
03:15		2	137			3	120				
03:30		1	125			1	106				
03:45		3	102	8	472	5	104	10	423	18	895
04:00		4	109			3	116				
04:15		4	103			7	104				
04:30		5	134			8	109				
04:45		8	124	21	470	14	125	32	454	53	924
05:00		3	**139**			11	**107**				
05:15		8	**128**			17	**135**				
05:30		30	**145**			21	**126**				
05:45		38	**126**	79	538	31	**127**	80	495	159	1033
06:00		34	134			28	91				
06:15		34	110			44	117				
06:30		49	121			50	108				
06:45		59	94	176	459	72	73	194	389	370	848
07:00		69	105			93	83				
07:15		**109**	106			88	75				
07:30		**124**	96			**102**	52				
07:45		**123**	78	425	385	**130**	61	413	271	838	656
08:00		**109**	70			**99**	61				
08:15		86	93			**98**	70				
08:30		81	77			87	51				
08:45		72	91	348	331	107	49	391	231	739	562
09:00		56	69			92	40				
09:15		59	65			60	36				
09:30		84	62			98	24				
09:45		80	36	279	232	99	32	349	132	628	364
10:00		62	39			76	26				
10:15		67	30			84	30				
10:30		73	23			63	29				
10:45		84	21	286	113	80	19	303	104	589	217
11:00		66	24			95	9				
11:15		74	11			88	11				
11:30		84	12			101	9				
11:45		76	6	300	53	112	10	396	39	696	92
Total		1986	4206	1986	4206	2227	3537	2227	3537	4213	7743
Combined Total		6192		6192		5764		5764		11956	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	465	-	-	-	429	-	-	-	-	-
P.H.F.		0.938				0.825					
PM Peak	-	-	05:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	538	-	-	-	495	-	-	-	-
P.H.F.			0.928				0.917				
Percentage		32.1%	67.9%			38.6%	61.4%				
ADT/AADT		ADT 11,956		AADT 11,956							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Shepherd Avenue
B/ Minnewawa Avenue - Clovis Avenue
24 Hour Directional Volume Count

CVS005
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	85			16	66				
12:15		10	93			11	85				
12:30		9	85			7	84				
12:45		5	106	33	369	8	84	42	319	75	688
01:00		2	82			4	82				
01:15		2	74			5	78				
01:30		6	93			3	84				
01:45		6	81	16	330	5	86	17	330	33	660
02:00		2	75			4	74				
02:15		2	80			1	88				
02:30		3	87			0	124				
02:45		3	**129**	10	371	3	97	8	383	18	754
03:00		3	**142**			0	101				
03:15		3	**127**			1	122				
03:30		2	**114**			0	99				
03:45		2	106	10	489	6	106	7	428	17	917
04:00		4	101			7	106				
04:15		3	96			5	121				
04:30		6	97			9	108				
04:45		9	112	22	406	11	**110**	32	445	54	851
05:00		7	120			14	**104**				
05:15		7	123			15	**142**				
05:30		18	117			13	**114**				
05:45		40	113	72	473	27	105	69	465	141	938
06:00		42	109			30	93				
06:15		32	126			45	101				
06:30		52	98			65	94				
06:45		72	93	198	426	69	76	209	364	407	790
07:00		55	74			85	73				
07:15		89	95			**105**	71				
07:30		**115**	76			**137**	57				
07:45		**136**	77	395	322	**95**	72	422	273	817	595
08:00		**135**	59			**92**	63				
08:15		**98**	84			98	72				
08:30		79	78			96	58				
08:45		79	82	391	303	101	37	387	230	778	533
09:00		53	54			81	40				
09:15		66	65			62	38				
09:30		70	57			72	28				
09:45		84	40	273	216	98	39	313	145	586	361
10:00		68	29			59	31				
10:15		80	32			82	18				
10:30		63	30			69	25				
10:45		72	14	283	105	83	24	293	98	576	203
11:00		79	20			61	9				
11:15		68	11			94	14				
11:30		69	9			100	9				
11:45		86	11	302	51	95	11	350	43	652	94
Total		2005	3861	2005	3861	2149	3523	2149	3523	4154	7384
Combined Total		5866		5866		5672		5672		11538	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	484	-	-	-	429	-	-	-	-	-
P.H.F.		0.890				0.783					
PM Peak	-	-	02:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	512	-	-	-	470	-	-	-	-
P.H.F.			0.901				0.827				
Percentage		34.2%	65.8%			37.9%	62.1%				
ADT/AADT		ADT 11,538		AADT 11,538							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Shepherd Avenue
B/ Clovis Avenue - Sunnyside Avenue
24 Hour Directional Volume Count

CVS006
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	67			11	55				
12:15		7	79			8	58				
12:30		7	75			4	58				
12:45		2	86	25	307	6	59	29	230	54	537
01:00		2	65			4	75				
01:15		4	61			3	56				
01:30		7	83			2	65				
01:45		6	67	19	276	5	52	14	248	33	524
02:00		3	71			5	65				
02:15		2	81			0	66				
02:30		3	73			0	97				
02:45		3	**129**	11	354	3	74	8	302	19	656
03:00		1	**128**			0	89				
03:15		2	**129**			1	84				
03:30		2	**94**			2	86				
03:45		0	79	5	430	4	91	7	350	12	780
04:00		4	83			5	80				
04:15		0	82			4	99				
04:30		3	81			8	94				
04:45		7	101	14	347	10	**87**	27	360	41	707
05:00		3	107			10	**95**				
05:15		6	105			15	**110**				
05:30		17	105			13	**96**				
05:45		31	102	57	419	23	86	61	387	118	806
06:00		39	88			29	71				
06:15		24	110			39	80				
06:30		47	89			55	79				
06:45		54	85	164	372	63	64	186	294	350	666
07:00		44	68			86	58				
07:15		**96**	87			**118**	52				
07:30		**102**	69			**137**	42				
07:45		**125**	68	367	292	**98**	47	439	199	806	491
08:00		**104**	55			**90**	40				
08:15		76	87			94	58				
08:30		63	75			80	53				
08:45		63	68	306	285	86	34	350	185	656	470
09:00		60	54			63	33				
09:15		71	47			62	25				
09:30		58	47			73	24				
09:45		72	38	261	186	88	30	286	112	547	298
10:00		58	27			64	20				
10:15		81	28			63	14				
10:30		60	25			50	22				
10:45		57	13	256	93	78	17	255	73	511	166
11:00		70	15			64	10				
11:15		57	9			82	10				
11:30		63	7			83	9				
11:45		71	7	261	38	95	8	324	37	585	75
Total		1746	3399	1746	3399	1986	2777	1986	2777	3732	6176
Combined Total		5145		5145		4763		4763		9908	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	427	-	-	-	443	-	-	-	-	-
P.H.F.		0.854				0.808					
PM Peak	-	-	02:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	480	-	-	-	388	-	-	-	-
P.H.F.			0.930				0.882				
Percentage		33.9%	66.1%			41.7%	58.3%				
ADT/AADT		ADT 9,908		AADT 9,908							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Shepherd Avenue
B/ Sunnyside Avenue - Fowler Avenue
24 Hour Directional Volume Count

CVS007
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		7	61			11	49				
12:15		8	68			6	57				
12:30		6	63			2	45				
12:45		3	70	24	262	5	63	24	214	48	476
01:00		2	54			4	66				
01:15		3	50			4	44				
01:30		7	69			2	50				
01:45		7	54	19	227	4	50	14	210	33	437
02:00		2	62			3	51				
02:15		2	62			0	62				
02:30		3	64			0	87				
02:45		3	**114**	10	302	3	69	6	269	16	571
03:00		0	**116**			1	73				
03:15		0	**111**			1	71				
03:30		4	**94**			0	60				
03:45		0	90	4	411	3	62	5	266	9	677
04:00		3	79			4	72				
04:15		0	76			4	80				
04:30		1	73			7	76				
04:45		6	90	10	318	8	73	23	301	33	619
05:00		2	96			12	**76**				
05:15		4	95			11	**93**				
05:30		9	92			7	**89**				
05:45		19	86	34	369	23	**74**	53	332	87	701
06:00		33	79			27	58				
06:15		24	100			30	68				
06:30		32	79			41	70				
06:45		46	75	135	333	60	55	158	251	293	584
07:00		30	68			76	42				
07:15		**63**	83			**137**	42				
07:30		**79**	64			**113**	35				
07:45		**105**	56	277	271	**67**	38	393	157	670	428
08:00		**100**	43			**85**	31				
08:15		52	74			90	44				
08:30		51	70			71	49				
08:45		46	58	249	245	73	24	319	148	568	393
09:00		48	49			53	21				
09:15		43	43			56	18				
09:30		53	39			66	27				
09:45		58	45	202	176	79	28	254	94	456	270
10:00		52	26			62	17				
10:15		57	25			49	12				
10:30		55	26			45	19				
10:45		48	15	212	92	67	13	223	61	435	153
11:00		57	14			62	10				
11:15		48	7			75	8				
11:30		57	7			79	7				
11:45		61	5	223	33	72	5	288	30	511	63
Total		1399	3039	1399	3039	1760	2333	1760	2333	3159	5372
Combined Total		4438		4438		4093		4093		8531	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	347	-	-	-	402	-	-	-	-	-
P.H.F.		0.826				0.734					
PM Peak	-	-	02:45	-	-	-	05:00	-	-	-	-
Vol.	-	-	435	-	-	-	332	-	-	-	-
P.H.F.			0.938				0.892				
Percentage		31.5%	68.5%			43.0%	57.0%				
ADT/AADT		ADT 8,531		AADT 8,531							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Herndon Avenue
B/ State Route 168 Eastbound - Clovis Avenue
24 Hour Directional Volume Count

CVS008
Site Code: 003-22473

Start Time	24-May-22 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		36	465			49	397				
12:15		44	400			38	404				
12:30		38	411			32	433				
12:45		27	354	145	1630	18	451	137	1685	282	3315
01:00		18	374			16	387				
01:15		18	362			21	369				
01:30		14	381			14	355				
01:45		18	384	68	1501	19	370	70	1481	138	2982
02:00		17	412			25	411				
02:15		16	402			22	399				
02:30		11	366			15	382				
02:45		16	388	60	1568	8	358	70	1550	130	3118
03:00		9	421			13	437				
03:15		6	458			21	408				
03:30		19	432			11	427				
03:45		27	457	61	1768	17	377	62	1649	123	3417
04:00		18	384			25	375				
04:15		23	**538**			21	**415**				
04:30		40	**491**			41	**423**				
04:45		67	**528**	148	1941	43	**402**	130	1615	278	3556
05:00		42	**485**			50	**474**				
05:15		64	497			40	412				
05:30		100	499			75	377				
05:45		153	489	359	1970	114	404	279	1667	638	3637
06:00		90	450			101	385				
06:15		101	406			147	379				
06:30		148	321			244	327				
06:45		163	364	502	1541	266	309	758	1400	1260	2941
07:00		174	260			331	283				
07:15		228	301			**399**	269				
07:30		284	263			**437**	268				
07:45		331	247	1017	1071	**452**	239	1619	1059	2636	2130
08:00		355	269			**382**	244				
08:15		282	223			391	231				
08:30		320	248			385	238				
08:45		312	220	1269	960	314	207	1472	920	2741	1880
09:00		245	202			285	185				
09:15		276	173			298	190				
09:30		278	178			318	162				
09:45		299	149	1098	702	331	174	1232	711	2330	1413
10:00		321	106			316	158				
10:15		301	89			326	140				
10:30		369	81			347	120				
10:45		352	94	1343	370	338	72	1327	490	2670	860
11:00		**401**	54			304	79				
11:15		**375**	65			392	70				
11:30		**390**	76			392	61				
11:45		**439**	57	1605	252	403	35	1491	245	3096	497
Total		7675	15274	7675	15274	8647	14472	8647	14472	16322	29746
Combined Total		22949		22949		23119		23119		46068	
AM Peak	-	11:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	1605	-	-	-	1670	-	-	-	-	-
P.H.F.		0.914				0.924					
PM Peak	-	-	04:15	-	-	-	04:15	-	-	-	-
Vol.	-	-	2042	-	-	-	1714	-	-	-	-
P.H.F.			0.949				0.904				
Percentage		33.4%	66.6%			37.4%	62.6%				
ADT/AADT		ADT 46,068		AADT 46,068							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Willow Avenue
B/ International Avenue - Behymer Avenue
24 Hour Directional Volume Count

CVS009
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		14	86			7	76				
12:15		14	73			13	54				
12:30		5	83			11	62				
12:45		7	85	40	327	3	89	34	281	74	608
01:00		10	61			6	61				
01:15		3	66			8	55				
01:30		6	78			5	74				
01:45		3	59	22	264	4	61	23	251	45	515
02:00		10	91			5	68				
02:15		4	**112**			7	78				
02:30		2	**177**			3	**115**				
02:45		0	**163**	16	543	6	**305**	21	566	37	1109
03:00		4	**109**			5	**117**				
03:15		2	81			7	**98**				
03:30		1	106			4	97				
03:45		0	95	7	391	2	77	18	389	25	780
04:00		0	104			3	94				
04:15		1	76			7	102				
04:30		8	127			12	62				
04:45		8	113	17	420	12	104	34	362	51	782
05:00		9	93			4	94				
05:15		14	156			11	86				
05:30		27	106			15	74				
05:45		36	105	86	460	11	84	41	338	127	798
06:00		26	120			27	88				
06:15		23	97			31	73				
06:30		46	75			50	59				
06:45		64	76	159	368	66	62	174	282	333	650
07:00		67	76			64	83				
07:15		**109**	80			79	50				
07:30		**157**	55			**158**	79				
07:45		**217**	53	550	264	**188**	53	489	265	1039	529
08:00		**164**	60			**201**	58				
08:15		71	56			**86**	45				
08:30		68	54			57	61				
08:45		72	51	375	221	60	36	404	200	779	421
09:00		60	54			58	32				
09:15		51	43			62	32				
09:30		59	28			50	33				
09:45		55	23	225	148	59	22	229	119	454	267
10:00		49	16			61	23				
10:15		51	29			68	23				
10:30		61	30			59	19				
10:45		56	19	217	94	66	13	254	78	471	172
11:00		60	12			72	10				
11:15		69	16			59	20				
11:30		71	11			72	13				
11:45		73	10	273	49	79	5	282	48	555	97
Total		1987	3549	1987	3549	2003	3179	2003	3179	3990	6728
Combined Total		5536		5536		5182		5182		10718	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	647	-	-	-	633	-	-	-	-	-
P.H.F.		0.745				0.787					
PM Peak	-	-	02:15	-	-	-	02:30	-	-	-	-
Vol.	-	-	561	-	-	-	635	-	-	-	-
P.H.F.			0.792				0.520				
Percentage		35.9%	64.1%			38.7%	61.3%				
ADT/AADT		ADT 10,718		AADT 10,718							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Willow Avenue
B/ Behymer Avenue - Shepherd Avenue
24 Hour Directional Volume Count

CVS010
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		26	127			13	141				
12:15		23	112			16	112				
12:30		11	136			14	118				
12:45		9	120	69	495	13	142	56	513	125	1008
01:00		15	136			8	148				
01:15		2	111			8	104				
01:30		10	112			8	131				
01:45		5	114	32	473	4	121	28	504	60	977
02:00		13	127			5	112				
02:15		4	159			10	123				
02:30		8	201			9	130				
02:45		0	200	25	687	8	**249**	32	614	57	1301
03:00		7	185			6	**193**				
03:15		4	153			5	**196**				
03:30		5	172			6	**176**				
03:45		3	195	19	705	7	156	24	721	43	1426
04:00		2	165			2	146				
04:15		1	175			13	173				
04:30		8	**218**			18	133				
04:45		13	**203**	24	761	22	155	55	607	79	1368
05:00		11	**187**			27	136				
05:15		18	**244**			25	164				
05:30		35	201			37	162				
05:45		48	201	112	833	40	149	129	611	241	1444
06:00		34	163			56	129				
06:15		29	150			64	144				
06:30		54	123			93	121				
06:45		64	132	181	568	128	106	341	500	522	1068
07:00		81	131			129	144				
07:15		**125**	137			137	90				
07:30		**196**	104			**255**	116				
07:45		**235**	94	637	466	**233**	95	754	445	1391	911
08:00		**138**	94			**247**	89				
08:15		125	106			**203**	102				
08:30		106	82			124	76				
08:45		123	97	492	379	126	79	700	346	1192	725
09:00		80	96			94	55				
09:15		79	90			120	65				
09:30		97	51			111	62				
09:45		97	46	353	283	111	46	436	228	789	511
10:00		84	44			105	44				
10:15		78	63			108	40				
10:30		87	65			103	47				
10:45		91	34	340	206	114	31	430	162	770	368
11:00		105	26			112	27				
11:15		112	22			117	23				
11:30		108	24			117	21				
11:45		115	28	440	100	132	11	478	82	918	182
Total		2724	5956	2724	5956	3463	5333	3463	5333	6187	11289
Combined Total		8680		8680		8796		8796		17476	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	694	-	-	-	938	-	-	-	-	-
P.H.F.		0.738				0.920					
PM Peak	-	-	04:30	-	-	-	02:45	-	-	-	-
Vol.	-	-	852	-	-	-	814	-	-	-	-
P.H.F.			0.873				0.817				
Percentage		31.4%	68.6%			39.4%	60.6%				
ADT/AADT		ADT 17,476		AADT 17,476							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Minnewawa Avenue
B/ International Avenue - Behymer Avenue
24 Hour Directional Volume Count

CVS011
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		14	51			7	49				
12:15		7	44			14	45				
12:30		8	54			8	51				
12:45		5	36	34	185	8	34	37	179	71	364
01:00		5	48			8	58				
01:15		7	55			5	53				
01:30		5	52			4	55				
01:45		3	44	20	199	9	55	26	221	46	420
02:00		2	43			4	58				
02:15		4	54			5	60				
02:30		0	105			10	**69**				
02:45		1	79	7	281	5	**109**	24	296	31	577
03:00		2	56			7	**99**				
03:15		2	65			2	**61**				
03:30		1	65			2	67				
03:45		2	64	7	250	5	69	16	296	23	546
04:00		3	67			3	83				
04:15		1	70			5	87				
04:30		10	**80**			11	69				
04:45		5	**67**	19	284	8	74	27	313	46	597
05:00		8	**72**			7	62				
05:15		26	**96**			12	82				
05:30		25	72			19	69				
05:45		24	63	83	303	30	45	68	258	151	561
06:00		26	53			17	60				
06:15		38	57			30	67				
06:30		59	45			48	41				
06:45		61	64	184	219	48	41	143	209	327	428
07:00		67	58			41	40				
07:15		**109**	49			59	38				
07:30		**150**	43			**99**	21				
07:45		**168**	42	494	192	**103**	34	302	133	796	325
08:00		**85**	52			**90**	27				
08:15		67	37			**67**	31				
08:30		61	33			53	46				
08:45		52	33	265	155	49	32	259	136	524	291
09:00		43	27			51	26				
09:15		43	19			50	19				
09:30		54	24			47	19				
09:45		48	21	188	91	50	13	198	77	386	168
10:00		40	20			44	8				
10:15		40	18			52	28				
10:30		41	16			40	19				
10:45		55	12	176	66	38	16	174	71	350	137
11:00		36	7			55	9				
11:15		56	8			52	8				
11:30		50	8			54	10				
11:45		41	12	183	35	50	11	211	38	394	73
Total		1660	2260	1660	2260	1485	2227	1485	2227	3145	4487
Combined Total		3920		3920		3712		3712		7632	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	512	-	-	-	359	-	-	-	-	-
P.H.F.		0.762				0.871					
PM Peak	-	-	04:30	-	-	-	02:30	-	-	-	-
Vol.	-	-	315	-	-	-	338	-	-	-	-
P.H.F.			0.820				0.775				
Percentage		42.3%	57.7%			40.0%	60.0%				
ADT/AADT		ADT 7,632		AADT 7,632							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Minnewawa Avenue
B/ Behymer Avenue - Shepherd Avenue
24 Hour Directional Volume Count

CVS012
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		12	35			5	41				
12:15		8	39			13	45				
12:30		6	47			8	46				
12:45		4	30	30	151	7	38	33	170	63	321
01:00		4	40			6	52				
01:15		9	46			3	36				
01:30		5	42			4	38				
01:45		1	45	19	173	7	47	20	173	39	346
02:00		4	37			3	42				
02:15		3	51			3	55				
02:30		1	59			5	61				
02:45		1	72	9	219	4	54	15	212	24	431
03:00		3	52			4	49				
03:15		2	50			3	51				
03:30		2	58			2	54				
03:45		2	49	9	209	5	47	14	201	23	410
04:00		3	53			1	53				
04:15		1	59			6	58				
04:30		7	59			8	51				
04:45		3	51	14	222	5	**61**	20	223	34	445
05:00		6	**56**			8	**42**				
05:15		21	**80**			12	**67**				
05:30		17	**70**			16	**56**				
05:45		20	**54**	64	260	21	32	57	197	121	457
06:00		23	44			12	41				
06:15		24	40			29	47				
06:30		35	34			36	26				
06:45		40	41	122	159	35	31	112	145	234	304
07:00		35	49			35	34				
07:15		**52**	40			**56**	31				
07:30		**55**	33			**93**	16				
07:45		**96**	35	238	157	**68**	25	252	106	490	263
08:00		**58**	43			**64**	20				
08:15		43	30			56	22				
08:30		38	30			51	35				
08:45		40	23	179	126	40	21	211	98	390	224
09:00		34	26			39	13				
09:15		31	13			37	16				
09:30		37	23			48	14				
09:45		34	19	136	81	45	8	169	51	305	132
10:00		30	23			32	5				
10:15		26	13			42	23				
10:30		25	11			33	16				
10:45		37	14	118	61	34	10	141	54	259	115
11:00		34	8			43	6				
11:15		39	11			38	6				
11:30		39	6			45	10				
11:45		31	9	143	34	45	9	171	31	314	65
Total		1081	1852	1081	1852	1215	1661	1215	1661	2296	3513
Combined Total		2933		2933		2876		2876		5809	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	261	-	-	-	281	-	-	-	-	-
P.H.F.		0.680				0.755					
PM Peak	-	-	05:00	-	-	-	04:45	-	-	-	-
Vol.	-	-	260	-	-	-	226	-	-	-	-
P.H.F.			0.813				0.843				
Percentage		36.9%	63.1%			42.2%	57.8%				
ADT/AADT		ADT 5,809		AADT 5,809							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Clovis Avenue
B/ Baron Avenue - Shepherd Avenue
24 Hour Directional Volume Count

CVS013
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	20			1	19				
12:15		4	21			2	24				
12:30		2	17			4	19				
12:45		2	25	10	83	0	27	7	89	17	172
01:00		0	12			0	17				
01:15		0	20			0	18				
01:30		1	18			1	17				
01:45		1	15	2	65	0	16	1	68	3	133
02:00		1	14			0	18				
02:15		1	11			0	25				
02:30		0	6			0	**29**				
02:45		0	16	2	47	0	**31**	0	103	2	150
03:00		1	**19**			0	**19**				
03:15		0	**29**			0	**28**				
03:30		1	**28**			0	28				
03:45		1	**22**	3	98	0	16	0	91	3	189
04:00		1	16			0	21				
04:15		1	22			0	14				
04:30		1	19			3	16				
04:45		0	17	3	74	0	16	3	67	6	141
05:00		3	23			1	14				
05:15		1	16			3	16				
05:30		5	25			4	14				
05:45		6	19	15	83	5	8	13	52	28	135
06:00		6	22			3	7				
06:15		7	13			7	16				
06:30		15	8			12	8				
06:45		31	14	59	57	5	11	27	42	86	99
07:00		19	13			9	14				
07:15		23	17			**26**	13				
07:30		**44**	18			**69**	8				
07:45		**24**	20	110	68	**31**	9	135	44	245	112
08:00		**35**	8			**23**	11				
08:15		**35**	11			15	8				
08:30		17	12			24	4				
08:45		13	21	100	52	21	6	83	29	183	81
09:00		11	9			21	8				
09:15		9	17			20	4				
09:30		21	13			10	5				
09:45		16	7	57	46	27	2	78	19	135	65
10:00		16	7			23	6				
10:15		18	6			25	7				
10:30		12	2			27	3				
10:45		21	2	67	17	13	2	88	18	155	35
11:00		17	8			14	3				
11:15		21	2			24	1				
11:30		16	1			20	0				
11:45		25	4	79	15	12	2	70	6	149	21
Total		507	705	507	705	505	628	505	628	1012	1333
Combined Total		1212		1212		1133		1133		2345	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	138	-	-	-	149	-	-	-	-	-
P.H.F.		0.784				0.540					
PM Peak	-	-	03:00	-	-	-	02:30	-	-	-	-
Vol.	-	-	98	-	-	-	107	-	-	-	-
P.H.F.			0.845				0.863				
Percentage		41.8%	58.2%			44.6%	55.4%				
ADT/AADT		ADT 2,345		AADT 2,345							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Clovis Avenue
B/ Shepherd Avenue - Teague Avenue
24 Hour Directional Volume Count

CVS014
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	27			2	33				
12:15		5	46			3	36				
12:30		5	48			6	34				
12:45		2	49	20	170	1	46	12	149	32	319
01:00		0	33			0	48				
01:15		4	48			0	37				
01:30		4	45			2	35				
01:45		2	50	10	176	1	31	3	151	13	327
02:00		3	34			2	33				
02:15		2	45			0	36				
02:30		0	38			0	48				
02:45		2	**64**	7	181	2	56	4	173	11	354
03:00		0	**50**			1	52				
03:15		0	**92**			1	**51**				
03:30		1	**52**			2	**59**				
03:45		2	47	3	241	1	**53**	5	215	8	456
04:00		4	59			1	**56**				
04:15		2	54			3	38				
04:30		3	52			7	51				
04:45		4	64	13	229	5	51	16	196	29	425
05:00		6	68			4	63				
05:15		6	60			9	46				
05:30		10	61			10	44				
05:45		11	48	33	237	15	29	38	182	71	419
06:00		20	55			19	39				
06:15		15	51			17	49				
06:30		34	34			26	28				
06:45		41	40	110	180	27	33	89	149	199	329
07:00		28	35			30	27				
07:15		**62**	42			**71**	27				
07:30		**63**	38			**101**	20				
07:45		**48**	55	201	170	**69**	28	271	102	472	272
08:00		**36**	37			**53**	21				
08:15		49	38			47	18				
08:30		34	34			41	24				
08:45		32	27	151	136	41	23	182	86	333	222
09:00		30	30			15	22				
09:15		24	26			30	18				
09:30		38	18			40	16				
09:45		28	24	120	98	41	12	126	68	246	166
10:00		27	16			49	6				
10:15		36	13			23	14				
10:30		31	13			30	16				
10:45		29	14	123	56	31	8	133	44	256	100
11:00		26	8			35	9				
11:15		39	10			41	7				
11:30		43	5			36	6				
11:45		40	6	148	29	42	5	154	27	302	56
Total		939	1903	939	1903	1033	1542	1033	1542	1972	3445
Combined Total		2842		2842		2575		2575		5417	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	209	-	-	-	294	-	-	-	-	-
P.H.F.		0.829				0.728					
PM Peak	-	-	02:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	258	-	-	-	219	-	-	-	-
P.H.F.			0.701				0.928				
Percentage		33.0%	67.0%			40.1%	59.9%				
ADT/AADT		ADT 5,417		AADT 5,417							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Clovis Avenue
B/ Teague Avenue - Nees Avenue
24 Hour Directional Volume Count

CVS015
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	68			4	77				
12:15		8	94			2	62				
12:30		8	91			6	71				
12:45		3	64	28	317	3	83	15	293	43	610
01:00		1	63			1	55				
01:15		5	80			0	54				
01:30		2	94			1	60				
01:45		1	67	9	304	1	58	3	227	12	531
02:00		4	65			3	58				
02:15		3	80			2	59				
02:30		2	87			1	71				
02:45		2	108	11	340	1	**98**	7	286	18	626
03:00		2	101			1	**110**				
03:15		0	111			2	**147**				
03:30		1	97			1	**107**				
03:45		3	91	6	400	3	89	7	453	13	853
04:00		2	118			4	74				
04:15		2	97			10	88				
04:30		1	**117**			9	70				
04:45		3	**110**	8	442	14	73	37	305	45	747
05:00		11	**144**			15	105				
05:15		9	**134**			17	69				
05:30		9	106			23	76				
05:45		24	95	53	479	29	61	84	311	137	790
06:00		20	97			26	78				
06:15		22	92			45	75				
06:30		42	64			43	60				
06:45		65	65	149	318	65	55	179	268	328	586
07:00		69	58			81	45				
07:15		**128**	64			95	49				
07:30		**173**	78			**160**	30				
07:45		**105**	80	475	280	**148**	46	484	170	959	450
08:00		**88**	79			**117**	31				
08:15		62	69			**131**	37				
08:30		58	63			101	36				
08:45		50	61	258	272	71	37	420	141	678	413
09:00		48	66			60	32				
09:15		52	54			67	30				
09:30		48	38			70	28				
09:45		58	34	206	192	67	23	264	113	470	305
10:00		53	29			65	16				
10:15		69	32			69	9				
10:30		50	19			58	15				
10:45		57	19	229	99	59	10	251	50	480	149
11:00		74	19			52	14				
11:15		58	14			85	7				
11:30		85	12			56	12				
11:45		71	12	288	57	85	10	278	43	566	100
Total		1720	3500	1720	3500	2029	2660	2029	2660	3749	6160
Combined Total		5220		5220		4689		4689		9909	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	494	-	-	-	556	-	-	-	-	-
P.H.F.		0.714				0.869					
PM Peak	-	-	04:30	-	-	-	02:45	-	-	-	-
Vol.	-	-	505	-	-	-	462	-	-	-	-
P.H.F.			0.877				0.786				
Percentage		33.0%	67.0%			43.3%	56.7%				
ADT/AADT		ADT 9,909		AADT 9,909							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Clovis Avenue
B/ Nees Avenue - Alluvial Avenue
24 Hour Directional Volume Count

CVS016
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	91			9	112				
12:15		9	134			8	85				
12:30		12	112			9	93				
12:45		4	77	33	414	3	114	29	404	62	818
01:00		3	81			2	88				
01:15		8	97			2	81				
01:30		2	103			1	100				
01:45		1	89	14	370	2	85	7	354	21	724
02:00		6	91			7	97				
02:15		4	101			2	97				
02:30		3	94			3	94				
02:45		1	117	14	403	2	**137**	14	425	28	828
03:00		2	114			2	**148**				
03:15		0	118			2	**169**				
03:30		1	108			3	**157**				
03:45		4	113	7	453	4	105	11	579	18	1032
04:00		1	121			5	112				
04:15		2	131			10	118				
04:30		5	**126**			8	100				
04:45		4	**128**	12	506	14	134	37	464	49	970
05:00		14	**159**			15	141				
05:15		9	**155**			18	125				
05:30		19	123			24	122				
05:45		29	102	71	539	35	93	92	481	163	1020
06:00		21	109			36	123				
06:15		25	122			45	109				
06:30		52	81			63	95				
06:45		71	71	169	383	80	86	224	413	393	796
07:00		64	75			99	73				
07:15		**100**	73			115	77				
07:30		**97**	92			**195**	68				
07:45		**90**	90	351	330	**188**	73	597	291	948	621
08:00		**85**	94			**137**	53				
08:15		61	76			**140**	48				
08:30		67	63			117	54				
08:45		53	65	266	298	107	53	501	208	767	506
09:00		63	56			82	43				
09:15		52	60			83	38				
09:30		59	43			97	36				
09:45		75	46	249	205	92	29	354	146	603	351
10:00		74	33			80	20				
10:15		83	38			95	21				
10:30		71	20			77	19				
10:45		79	25	307	116	89	14	341	74	648	190
11:00		85	20			81	15				
11:15		70	15			119	11				
11:30		102	16			74	10				
11:45		88	19	345	70	110	11	384	47	729	117
Total		1838	4087	1838	4087	2591	3886	2591	3886	4429	7973
Combined Total		5925		5925		6477		6477		12402	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	372	-	-	-	660	-	-	-	-	-
P.H.F.		0.930				0.846					
PM Peak	-	-	04:30	-	-	-	02:45	-	-	-	-
Vol.	-	-	568	-	-	-	611	-	-	-	-
P.H.F.			0.893				0.904				
Percentage		31.0%	69.0%			40.0%	60.0%				
ADT/AADT		ADT 12,402		AADT 12,402							

Counts Unlimited, Inc.

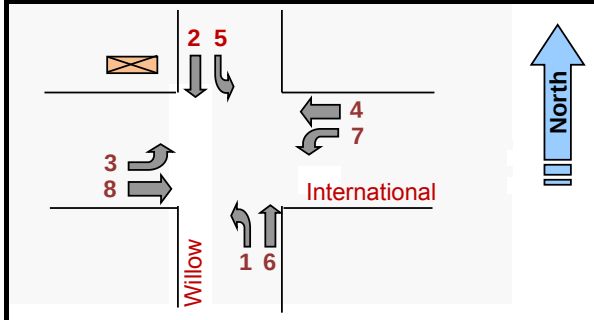
PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Clovis
Clovis Avenue
B/ Alluvial Avenue - Herndon Avenue
24 Hour Directional Volume Count

CVS017
Site Code: 003-22473

Start Time	24-May-22 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		12	235			15	192				
12:15		20	187			13	173				
12:30		17	230			15	173				
12:45		10	191	59	843	6	199	49	737	108	1580
01:00		11	207			7	172				
01:15		12	194			8	147				
01:30		4	165			6	155				
01:45		6	171	33	737	3	159	24	633	57	1370
02:00		10	178			6	165				
02:15		5	223			12	148				
02:30		6	205			5	153				
02:45		3	197	24	803	3	162	26	628	50	1431
03:00		4	210			2	179				
03:15		4	212			3	176				
03:30		5	190			2	236				
03:45		10	230	23	842	6	161	13	752	36	1594
04:00		7	191			6	153				
04:15		8	256			6	158				
04:30		9	173			13	197				
04:45		18	**217**	42	837	14	**178**	39	686	81	1523
05:00		20	**256**			18	**187**				
05:15		18	**247**			22	**231**				
05:30		40	**210**			37	**200**				
05:45		51	214	129	927	53	167	130	785	259	1712
06:00		39	203			46	140				
06:15		51	171			64	185				
06:30		65	145			99	147				
06:45		94	156	249	675	126	150	335	622	584	1297
07:00		98	146			145	112				
07:15		147	129			151	123				
07:30		177	177			**217**	99				
07:45		162	149	584	601	**240**	88	753	422	1337	1023
08:00		156	143			**187**	65				
08:15		143	118			**194**	90				
08:30		135	131			184	69				
08:45		143	108	577	500	186	82	751	306	1328	806
09:00		153	102			144	77				
09:15		110	93			145	65				
09:30		147	80			143	50				
09:45		156	62	566	337	154	52	586	244	1152	581
10:00		172	72			125	28				
10:15		161	49			158	40				
10:30		150	46			136	35				
10:45		**184**	46	667	213	167	24	586	127	1253	340
11:00		**162**	35			148	29				
11:15		**175**	23			152	15				
11:30		**182**	33			153	16				
11:45		180	33	699	124	181	14	634	74	1333	198
Total		3652	7439	3652	7439	3926	6016	3926	6016	7578	13455
Combined Total		11091		11091		9942		9942		21033	
AM Peak	-	10:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	703	-	-	-	838	-	-	-	-	-
P.H.F.		0.955				0.873					
PM Peak	-	-	04:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	930	-	-	-	796	-	-	-	-
P.H.F.			0.908				0.861				
Percentage		32.9%	67.1%			39.5%	60.5%				
ADT/AADT		ADT 21,033		AADT 21,033							

Movement	NL	ST	EL	WT	SL	NT	WL	ET		
Times [1.1.1]	1	2	3	4	5	6	7	8	9	10
Min Green	8	8	8	8	8	8	8	8		0
Gap, Ext	2	5.8	2	4.5	2	5.8	2	5.2		0
Max 1	20	45	20	30	20	45	20	30		0
Max 2	12	35	12	20	12	35	12	20		0
Yel Clearance	4.3	4.7	3.6	4.8	4.3	4.7	3	4.8		0
Red Clearance	2	1	1	1	1	1	1	1		0
Walk	0	5	0	5		5		5		0
Ped Clearance	0	30	0	35		28		35		0
Red Revert	2	2	2	2	2	2	2	2		0
Add Initial	0		0			0		0		0
Max Initial	0		0			0		0		0
Time B4 Reduct	0	8	0	8		8		8		0
Cars B4 Reduct	0		0			0		0		0
Time To Reduce	0	25	0	15		25		15		0
Reduce By	0		0			0		0		0
Min Gap	2	2	2	2	2	2	2	2		0
DyMaxLim	0		0			0		0		0
Max Step	0		0			0		0		0
Options [1.1.2]	1	2	3	4	5	6	7	8	9	10
Enable	X	X	X	X	X	X	X	X		
Min Recall										
Max Recall										
Ped Recall										
Soft Recall		X				X				
Lock Calls										
Auto Flash Entry										
Auto Flash Exit										
Dual Entry		X		X		X		X		
Enable Simul Gap										
Gaurantee Passage										
Rest In Walk										
Conditonal Service										
Non-Actuated 1										
Non-Actuated 2										
Add Init Calc										



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8	9	10
Reservice										
PedClr Thru Yel										
SkipRed-NoCall										
Red Rest										
Max II										
*Max III										
Max Inhibit										
Ped Delay										
Red Rest on Gap										
Conflicting Phase	0	0	0	0	0	0	0	0	0	0
Grn/Ped Delay										
Omit Yel, Yel P	0	0	0	0	0	0	0	0	0	0
Ped Out/Olp Ped										
StartYel, Next P	0	0	0	0	0	0	0	0	0	0
*StartupVehCall	1	2	3	4	5	6	7	8		
*StartupPedCall										

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases							
1	1	RED	5	6	0	0				
2	1	GREEN	5	6	0	0				
3	1	RED	7	8	0	0				
4	1	RED	7	8	0	0				
5	2	RED	1	2	0	0				
6	2	GREEN	1	2	0	0				
7	2	RED	3	4	0	0				
8	2	RED	3	4	0	0				
9	0	RED	0	0	0	0				
10	0	RED	0	0	0	0				
11	0	RED	0	0	0	0				
12	0	RED	0	0	0	0				

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	OFF		
TS2CVM	NONE		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

Screen Size	8	Metric	OFF
Startup Flash	0	Red Revert	2
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	RSt	Display Time	60
Yellow < 3"	OFF	Tone Disable	ON
Allow Skip Yel	OFF	AudioPedTime	0
Start Red Tm	6	Phase Mode	STD8
Startup Calls	UseProg	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	USER
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	3-6
*InhFYA Red St	OFF	Security Delay	0
RingA1go	0		

* - 76.12B or newer

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
NoPed Reserv								

Comm [6.2]

Port	Baud Rate	FCM
1	38400	6
2	9600	6
3	9600	6
4	9600	6

Comm [6.5] — Host IPs

IP Address:	10	53	27	131	ATMS			
Mask:	255	255	255	0	10	50	10	22
Gateway:	10	53	27	1	SG			
Port #:	5126				0	0	0	0

City of FRESNO

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4	0	0
	2	6	5	7	8	0	0
5	1	1	2	3	4	0	0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3	0	0
	2	5	6	8	7	0	0
14	1	1	2	4	3	0	0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: International & Willow **ID:** 288 **Configuration:** Standard File

V76.12/13
Updated 12/6/17

Prepared by:	JT	Date Installed / By:	2/29/2020 (JT)
Checked by:	JT	Date Superseded:	

Date Printed: 2/29/20

[2.1] Coord Modes+

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Split	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: International & Willow

ID: 288

Date Printed: 2/29/2020

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
1	0	0	1	1
2	0	0	2	1
3	0	0	3	1
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7	0	0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
11	0	0	0	1
12	0	0	0	1
13	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8	9	10
1	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
2	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	16	46	14	42	14	48	14	42	0	0
	Crd-P		X								
	Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON
4	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
11	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
12	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
13	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Hold	Fit	Veh	Ped	MI
1	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
2	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
3	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
4	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
5	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
6	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
7	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
8	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
9	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	OFF
10	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	OFF
11		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
12	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
13		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF

[2.1] Coord Modes+

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Splt	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: International & Willow

ID: 288

City of FRESNO

Date Printed: 2/29/2020

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
20	0	0	0	1
21	0	0	0	1
22	0	0	0	1
23	0	0	0	1
24	0	0	0	1
25	0	0	0	1
26	0	0	0	1
27	0	0	0	1
28	0	0	0	1
29	0	0	0	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8	9	10
20	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
22	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
23	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
24	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
25	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
26	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
27	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
28	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
29	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ret Hold	Flt	Min Veh	Min Ped	MI
20		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
21	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
22		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
23	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
24		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
25	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
26		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
27	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
28		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
29	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
31	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF

[2.7.X.3] TSP Split Table

Pat#	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
1	0	0	1	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
2	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	2	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
3	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	3	1		16	46	14	42	14	48	14	42	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
4	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	4	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
5	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	5	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
6	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	6	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
9 - FREE	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	9	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						

[2.9.2.(1-8)] Strategy Tables

STRATEGY_1

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_2

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_3

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_4

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_5

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_6

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_7

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_8

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

AGENDA ITEM NO. 3.

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

1	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
A	Conflict Olap									Red	1	
	Conflict Ped											
2	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
B	Conflict Olap									Red	1	
	Conflict Ped											
3	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
C	Conflict Olap									Red	1	
	Conflict Ped											
4	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
D	Conflict Olap									Red	1	
	Conflict Ped											
5	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
E	Conflict Olap									Red	1	
	Conflict Ped											
6	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
F	Conflict Olap									Red	1	
	Conflict Ped											
7	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
G	Conflict Olap									Red	1	
	Conflict Ped											
8	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
H	Conflict Olap									Red	1	
	Conflict Ped											

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	ON
Xtra Incl Phases	OFF
InhibitLockInterval	Always

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.Pre #.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	OFF	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	RAIL	TS2	0	OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX

Preemption Times [3.#.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2	0	0	0	0	0	0	0	0
3		10	60	6		31		10
4	0	10	60	6	0	31	0	10
5		10	60	6		31		10
6	0	10	60	6	0	31	0	10

Preemption, Options [3.#.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt	Flash Dwell	Link
1	OFF	OFF	OFF	ON	
2	OFF	OFF	OFF	OFF	0
3	OFF	OFF	OFF	OFF	
4	OFF	OFF	OFF	OFF	0
5	OFF	OFF	OFF	OFF	
6	OFF	OFF	OFF	OFF	0

Preemption, Times+ [3.#.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2	0	0	0	0	0
3		20	10	3.9	2
4	0	20	10	3.9	2
5		20	10	3.9	2
6	0	20	10	3.9	2

Pre 1 = RR1
Pre 2 = RR2
Pre 3 = EVA
Pre 4 = EVB
Pre 5 = EVC
Pre 6 = EVD

Prog Parms+ (MM>1>5>2>X>3)

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 1-A

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 2-B

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 3-C

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 4-D

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

Phases [3.#.2] - set the Dwell Phases

Pre #	Column	1	2	3	4	5	6	7	8	9	10
1	Dwell Veh										
	Peds										
2	Dwell Veh										
	Peds										
3	Dwell Veh	2	5								
	Peds										
4	Dwell Veh	4	7								
	Peds										
5	Dwell Veh	6	1								
	Peds										
6	Dwell Veh	8	3								
	Peds										

Phases [3.#.2] - Trk Veh

Pre #	Phases			
1				
2				
3				
4				
5				
6				

Exit Phases [3.#.2]

No.	Exit Phase			
1				
2				
3	2	5		
4	4	7		
5	1	6		
6	3	8		

Overlaps+ [3.#.5]

Pre #		Preempt Overlaps +									
1	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
2	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
3	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
4	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
5	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
6	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										

City of FRESNO

ID: 288 **Name:** International & Willow

Date Printed: 2/29/2020

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz		X		X		X		X								
	Page 1								Page 2							

Chan Settings [1.8.2]

	17	18	19	20	21	22	23	24
Phase / Olap #								
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz								

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	USER

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	USER
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

CHANNELS+ [1.8.4]

Channel	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
Flash Green	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ID: 288 **NAME:** International & Willow

I/O LOGIC [1.8.7]

Prt Date: 2/29/2020

Row#	Result			Operand_1					Operand_2					Operand_3					Timer	
	I/O	Fcn	=	Inv	Src	I/0	Fun	Logic Func	Inv	Src	I/0	Fun	Logic Func	Inv	Src	I/0	Fun	Logic Func	Dly	Sec
1	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
2	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
3	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
4	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
5	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
6	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
7	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
8	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
9	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
10	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	0	0
3	0	0	0	0
4	4	0	0	0
5	0	0	0	0
6	6	0	0	0
7	0	0	0	0
8	8	0	0	0

Veh Par 1-32 [5.1]

Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1I1U	1					0	0	0	255
2	2I2U	2	0	0	0	0	0	0	0	255
3	2I2L	2	0	0	2	0	0	0	0	255
4	2I3U	2	0	0	2	0	0	0	0	255
5	2I3L	2	0	0	2	0	0	0	0	255
6	2I4U	2	0	0	2	0	0	0	0	255
7	3I5U	3					0	0	0	255
8	4I6U	4	0	0	0	0	0	0	0	255
9	4I6L	4	0	0	2	0	0	0	0	255
10	4I7U	4	0	0	2	0	0	0	0	255
11	4I7L	4		15	2		0	0	0	255
12	4I8U	4			2		0	0	0	255
13	1I9U	1	0	0	0	0	0	0	0	255
14	3I9L	3	0	0	0	0	0	0	0	255
15	5J1U	5	0	0	0	0	0	0	0	255
16	6J2U	6					0	0	0	255
17	6J2L	6			2		0	0	0	255
18	6J3U	6			2		0	0	0	255
19	6J3L	6			2		0	0	0	255
20	6J4U	6			2		0	0	0	255
21	7J5U	7					0	0	0	255
22	8J6U	8	0	0	0	0	0	0	0	255
23	8J6L	8	0	0	2	0	0	0	0	255
24	8J7U	8	0	0	2	0	0	0	0	255
25	8J7L	8	0	15	2	0	0	0	0	255
26	8J8U	8	0	0	2	0	0	0	0	255
27	5J9U	5					0	0	0	255
28	7J9L	7					0	0	0	255
29	2I11U	2	0	0	2	0	0	0	0	255
30	4I11L	4	0	15	2	0	0	0	0	255
31	6J11U	6			2		0	0	0	255
32	8J11L	8		15	2		0	0	0	255
33	1I1L	1	0	0	0	0	0	0	0	255
34	2I4L	2			2		0	0	0	255
35	3I5L	3	0	0	0	0	0	0	0	255
36	4I8L	4		10	2		0	0	0	255
37	5J1L	5	0	0	0	0	0	0	0	255
38	6J4L	6			2		0	0	0	255
39	7J5L	7	0	0	0	0	0	0	0	255
40	8J8L	8			2		0	0	0	255
41	4I10U	2					0	0	0	255
42	4I10L	2					0	0	0	255
43	8J10U	6					0	0	0	255
44	8J10L	6					0	0	0	255

Vehicle Options 1-32 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	X	X	-	-	-	-	X	X
2	-	X	-	-	-	-	X	X
3	X	-	-	-	-	-	X	X
4	X	-	-	-	-	-	X	X
5	X	-	-	-	-	-	X	X
6	X	-	-	-	-	-	X	X
7	X	X	-	-	-	-	X	X
8	-	X	-	-	-	-	X	X
9	X	-	-	-	-	-	X	X
10	X	-	-	-	-	-	X	X
11	X	-	-	-	-	-	X	X
12	X	-	-	-	-	-	X	X
13	X	X	-	-	-	-	X	X
14	X	X	-	-	-	-	X	X
15	X	X	-	-	-	-	X	X
16	-	X	-	-	-	-	X	X
17	X	-	-	-	-	-	X	X
18	X	-	-	-	-	-	X	X
19	X	-	-	-	-	-	X	X
20	X	-	-	-	-	-	X	X
21	X	X	-	-	-	-	X	X
22	-	X	-	-	-	-	X	X
23	X	-	-	-	-	-	X	X
24	X	-	-	-	-	-	X	X
25	X	-	-	-	-	-	X	X
26	X	-	-	-	-	-	X	X
27	X	X	-	-	-	-	X	X
28	X	X	-	-	-	-	X	X
29	X	-	-	-	-	-	X	X
30	X	-	-	-	-	-	X	X
31	X	-	-	-	-	-	X	X
32	X	-	-	-	-	-	X	X
33	X	X	-	-	-	-	X	X
34	X	-	-	-	-	-	X	X
35	X	X	-	-	-	-	X	X
36	X	-	-	-	-	-	X	X
37	X	X	-	-	-	-	X	X
38	X	-	-	-	-	-	X	X
39	X	X	-	-	-	-	X	X
40	X	-	-	-	-	-	X	X
41	-	X	-	-	-	-	X	X
42	-	X	-	-	-	-	X	X
43	-	X	-	-	-	-	X	X
44	-	X	-	-	-	-	X	X

Parameters+ 1-32 [5.3]

Det #	Occupancy G	Occupancy Y	Occupancy R	Delay 1	Delay 2	Type	
1	X	X	-			NORM	
2	X	X	-	0	0	NORM	0
3	X	X	-	0	0	STOPB	0
4	X	X	-	0	0	STOPB	0
5	X	X	-	0	0	STOPB	0
6	X	X	-	0	0	STOPB	0
7	X	X	-			NORM	
8	X	X	-	0	0	NORM	0
9	X	X	-	0	0	STOPB	0
10	X	X	-	0	0	STOPB	0
11	X	X	-			STOPB	
12	X	X	-			STOPB	
13	X	X	-	0	0	NORM	0
14	X	X	-	0	0	NORM	0
15	X	X	-	0	0	NORM	0
16	X	X	-			NORM	
17	X	X	-			STOPB	
18	X	X	-			STOPB	
19	X	X	-			STOPB	
20	X	X	-			STOPB	
21	X	X	-			NORM	
22	X	X	-	0	0	NORM	0
23	X	X	-	0	0	STOPB	0
24	X	X	-	0	0	STOPB	0
25	X	X	-	0	0	STOPB	0
26	X	X	-	0	0	STOPB	0
27	X	X	-			NORM	
28	X	X	-			NORM	
29	X	X	-	0	0	STOPB	0
30	X	X	-	0	0	STOPB	0
31	X	X	-			STOPB	
32	X	X	-			STOPB	
33	X	X	-	0	0	NORM	0
34	X	X	-			STOPB	
35	X	X	-	0	0	NORM	0
36	X	X	-			STOPB	
37	X	X	-	0	0	NORM	0
38	X	X	-			STOPB	
39	X	X	-	0	0	NORM	0
40	X	X	-			STOPB	
41	X	X	-			NORM	
42	X	X	-			NORM	
43	X	X	-			NORM	
44	X	X	-			NORM	

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8										
1	0	0	0	0									0	Off	DFT
2													0	Off	DFT
3	0	0	0	0									0	Off	DFT
4													0	Off	DFT
5	0	0	0	0									0	Off	DFT
6													0	Off	DFT
7	0	0	0	0									0	Off	DFT
8													0	Off	DFT
9	0	0	0	0									0	Off	DFT
10													0	Off	DFT
11	0	0	0	0									0	Off	DFT
12													0	Off	DFT
13	0	0	0	0									0	Off	DFT
14													0	Off	DFT
15	0	0	0	0									0	Off	DFT
16													0	Off	DFT
17	0	0	0	0									0	Off	DFT
18													0	Off	DFT
19	0	0	0	0									0	Off	DFT
20													0	Off	DFT
21	0	0	0	0									0	Off	DFT
22													0	Off	DFT
23	0	0	0	0									0	Off	DFT
24													0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	ENABLE	
Time Base Sync Ref	0	
GMT Offset	-	8
Daylight Savings	**Mon**	**Week**
Spring	3	2
Fall	11	1

NOTE: % and MI parameters are not used and are not shown above.

City of FRESNO

NAME: International & Willow

2/29/2020 **ID:** 288

AGENDA ITEM NO. 3.

| Annual Schedule [4.3] | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | |

#	Alarm	Ev	Alr
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	X	X
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	X	X
17	Cycle Fault	X	-
18	Cycle Failure	X	-
19	Coordination Fault	X	X
20	Controller Fault	X	X
25	EEPROM CRC Fault	X	X
30	Coord Diagnostic Fault	X	X
37	Download Request	X	X
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	X	X
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	X	X
60	Coordination Failure	X	X
63	TSP Active Trigger	-	-
73	Controller Access	X	X
81	FIO Changed Status	X	X

#1 Bus Preempt

				Prior. Phases			
Enable	OFF	Min	0	0	0	0	0
Coor+Pre	OFF	Max	0	---TSP---			
Lock Mode	MAX	Lock	0	Headway	0		
No Skip	OFF	Alt Table	0	GrpLock	OFF		
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF		

#2 Bus Preempt

				Prior. Phases			
Enable	OFF	Min	0	0	0	0	0
Coor+Pre	OFF	Max	0	---TSP---			
Lock Mode	MAX	Lock	0	Headway	0		
No Skip	OFF	Alt Table	0	GrpLock	OFF		
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF		

#3 Bus Preempt

				Prior. Phases			
Enable	OFF	Min	0	0	0	0	0
Coor+Pre	OFF	Max	0	---TSP---			
Lock Mode	MAX	Lock	0	Headway	0		
No Skip	OFF	Alt Table	0	GrpLock	OFF		
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF		

#4 Bus Preempt

				Prior. Phases			
Enable	OFF	Min	0	0	0	0	0
Coor+Pre	OFF	Max	0	---TSP---			
Lock Mode	MAX	Lock	0	Headway	0		
No Skip	OFF	Alt Table	0	GrpLock	OFF		
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF		

I/O INPUT TABLE

	1	2	3	4	5	6	7	8
1	2	16	8	22	3	17	9	23
2	6	20	12	26	198	199	30	31
3	15	1	21	7	27	13	28	14
4	189	189	189	189	4	18	10	24
5	130	134	132	136	200	201	202	203
6	32	5	19	11	25	29	208	207
7	33	34	35	36	37	38	39	40
8	41	42	43	44	189	189	189	189

ACTION Table [4.5]

Act	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8	P1	P2
1	1	-	-	-	-	-	-	-	-	-	-	-	0	0
2	2	-	-	-	-	-	-	-	-	-	-	-	0	0
3	3	-	-	-	-	-	-	-	-	-	-	-	0	0
4	4	-	-	-	-	-	-	-	-	-	-	-	0	0
5	5	-	-	-	-	-	-	-	-	-	-	-	0	0
6	6	-	-	-	-	-	-	-	-	-	-	-	0	0
7	7	-	-	-	-	-	-	-	-	-	-	-	0	0
8	8	-	-	-	-	-	-	-	-	-	-	-	0	0
9	9	-	-	-	-	-	-	-	-	-	-	-	0	0
10	10	-	-	-	-	-	-	-	-	-	-	-	0	0
11	11	-	-	-	-	-	-	-	-	-	-	-	0	0
12	12	-	-	-	-	-	-	-	-	-	-	-	0	0
13	13	-	-	-	-	-	-	-	-	-	-	-	0	0
14	14	-	-	-	-	-	-	-	-	-	-	-	0	0
15	15	-	-	-	-	-	-	-	-	-	-	-	0	0
16	0	-	-	-	-	-	-	-	-	-	-	-	0	0
54	254	-	-	-	-	-	-	-	-	-	-	-	0	0
55	0	-	-	-	-	-	-	-	-	-	-	-	0	0

Alarm Parameters [1.6.7.1]

Pattern Events:	ON
Local Txmt Alarms:	OFF
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Preempt Events:	ON

City of FRESNO

Date Printed
2/29/2020

ID: 288 **Name:** International & Willow

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	30	Veh Det 30
54	I2-8	31	Veh Det 31
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	32	Veh Det 32
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	29	Veh Det 29
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPUTS - 1.8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Function	Output Name
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5
C-11 OUTPUTS

1	O8-1	115	Not Used
2	O8-2	115	Not Used
3	O8-3	115	Not Used
4	O8-4	115	Not Used

I/O Inputs - 1.8.9.1.5
C-11 INPUTS

15	I7-1	33	Veh Det 33
16	I7-2	34	Veh Det 34
17	I7-3	35	Veh Det 35
18	I7-4	36	Veh Det 36
19	I7-5	37	Veh Det 37
20	I7-6	38	Veh Det 38
21	I7-7	39	Veh Det 39
22	I7-8	40	Veh Det 40
23	I8-1	41	Veh Det 41
24	I8-2	42	Veh Det 42
25	I8-3	43	Veh Det 43
26	I8-4	44	Veh Det 44
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

City of FRESNO

ID: 288

NAME: International & Willow

Date Printed: 2/29/2020

ID Number: 288

LOCATION: International & Willow

City of Fresno
332 Cabinet
44 Detector Plus Setup

	DETECTOR ASSIGNMENTS											ISOLATORS		
"I"	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call&Ext T2-1&2 C1-56 Det 1 NBL1	Ph 2 Ext T2-5&6 C1-39 Det 2 SB Far	Ph 2 Call&TP3 T2-9&10 C1-63 Det 4 SB Mid	Ph 2 Call&TP3 T4-1&2 C1-47 Det 6 SBT1	Ph 3 Call&Ext T4-5&6 C1-58 Det 7 EBL1	Ph 4 Ext T4-9&10 C1-41 Det 8 WB Far	Ph 4 Call&TP3 T6-1&2 C1-65 Det 10 WB Mid	Ph 4 Call&TP3 T6-5&6 C1-49 Det 12 WBT1	Ph 1 Call&Ext T6-9&10 C1-60 Det 13 NBLt Bk	Ph 2/4 Ext T10-5&6 C11-23 Det 41	Ph 2 Call&Ext T8-1 C1-80 Det 29 BIKE	Ph 2 PPB T8-4 C1-67	Ph 6 PPB T8-7 C1-68	FLASH SENSE T8-10 C1-81
LOWER	Ph 1 Call&Ext T2-3&4 C11-15 Det 33 NBL2	Ph 2 Call&TP3 T2-7&8 C1-43 Det 3 SB Bk	Ph 2 Call&Ext T2-11&12 C1-76 Det 5 SBRt	Ph 2 Call&TP3 T4-3&4 C11-16 Det 34 SBT2	Ph 3 Call&Ext T4-7&8 C11-17 Det 35 EBL2	Ph 4 Call&TP3 T4-11&12 C1-45 Det 9 WB Bk	Ph 4 Call&Ext T6-3&4 C1-78 Det 11 WBRt	Ph 4 Call&TP3 T6-7&8 C11-18 Det 36 WBT2	Ph 3 Call&Ext T6-11&12 C1-62 Det 14 EBLt Bk	Ph 2/4 Ext T10-7&8 C11-24 Det 42	Ph 4 Call&Ext T8-2 C1-53 Det 30 BIKE	Ph 4 PPB T8-5 C1-69	Ph 8 PPB T8-8 C1-70	STOP TIMING T8-11 C1-82
"J"	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call&Ext T3-1&2 C1-55 Det 15 SBL1	Ph 6 Ext T3-5&6 C1-40 Det 16 NB Far	Ph 6 Call&TP3 T3-9&10 C1-64 Det 18 NB Mid	Ph 6 Call&TP3 T5-1&2 C1-48 Det 20 NBT1	Ph 7 Call&Ext T5-5&6 C1-57 Det 21 WBL1	Ph 8 Ext T5-9&10 C1-42 Det 22 EB Far	Ph 8 Call&TP3 T7-1&2 C1-66 Det 24 EB Mid	Ph 8 Call&TP3 T7-5&6 C1-50 Det 26 EBT1	Ph 5 Call&Ext T7-9&10 C1-59 Det 27 SBLt Bk	Ph 6/8 Ext T10-9&10 C11-25 Det 43	Ph 6 Call&Ext T9-1 C1-54 Det 31 BIKE	EMER A Ph 2 + 5 T9-4 C1-71	EMER B Ph 4 + 7 T9-5 C1-72	RR1 FLASH T9-10 C1-51
LOWER	Ph 5 Call&Ext T3-3&4 C11-19 Det 37 SBL2	Ph 6 Call&TP3 T3-7&8 C1-44 Det 17 NB Bk	Ph 6 Call&Ext T3-11&12 C1-77 Det 19 NBRt	Ph 6 Call&TP3 T5-3&4 C11-20 Det 38 NBT2	Ph 7 Call&Ext T5-7&8 C11-21 Det 39 WBL2	Ph 8 Call&TP3 T5-11&12 C1-46 Det 23 EB Bk	Ph 8 Call&Ext T7-3&4 C1-79 Det 25 EBRt	Ph 8 Call&TP3 T7-7&8 C11-22 Det 40 EBT2	Ph 7 Call&Ext T7-11&12 C1-61 Det 28 WBLt Bk	Ph 6/8 EXT T10-11&12 C11-26 Det 44	Ph 8 Call&Ext T9-2 C1-75 Det 32 BIKE	EMER C Ph 1 + 6 T9-7 C1-73	EMER D Ph 3 + 8 T9-8 C1-74	RR2 LTD OP T9-11 C1-52

COMMENTS:

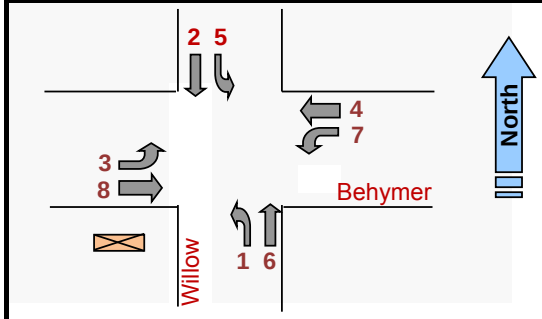
TIMING UPDATES AND MODIFICATIONS

AGENDA ITEM NO. 3.

ID: 288 **NAME:** International & Willow

DATE	CHANGES MADE	ATMS or CABINET	BY
2/29/2020	Updated All Red Start from 4 to 6 seconds. Updated timing calculations, FDW, & detector attributes. Also, removed coordination		
	data.	ATMS	JT

Movement	NL	ST	EL	WT	SL	NT	WL	ET		
Times [1.1.1]	1	2	3	4	5	6	7	8	9	10
Min Green	8	8	8	8	8	8	8	8		0
Gap, Ext	2	5.8	2	5.1	2	5.8	2	3.5		0
Max 1	20	45	20	30	20	45	20	30		0
Max 2	12	35	12	20	12	35	12	20		0
Yel Clearance	4.3	4.7	5.2	5.5	4.3	4.7	3.6	5.5		0
Red Clearance	1	1	1	1	1	1	1	1		0
Walk	0	5	0	5		5		5		0
Ped Clearance	0	32	0	38		30		36		0
Red Revert	2	2	2	2	2	2	2	2		0
Add Initial	0		0			0		0		0
Max Initial	0		0			0		0		0
Time B4 Reduct	0	8	0	8		8		8		0
Cars B4 Reduct	0		0			0		0		0
Time To Reduce	0	25	0	15		25		15		0
Reduce By	0		0			0		0		0
Min Gap	2	2	2	2	2	2	2	2		0
DyMaxLim	0		0			0		0		0
Max Step	0		0			0		0		0
Options [1.1.2]	1	2	3	4	5	6	7	8	9	10
Enable	X	X	X	X	X	X	X	X		
Min Recall										
Max Recall										
Ped Recall										
Soft Recall		X				X				
Lock Calls										
Auto Flash Entry										
Auto Flash Exit										
Dual Entry		X		X		X		X		
Enable Simul Gap										
Gaurantee Passage										
Rest In Walk										
Conditonal Service										
Non-Actuated 1										
Non-Actuated 2										
Add Init Calc										



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8	9	10
Reservice										
PedClr Thru Yel										
SkipRed-NoCall										
Red Rest										
Max II										
*Max III										
Max Inhibit										
Ped Delay										
Red Rest on Gap										
Conflicting Phase	0	0	0	0	0	0	0	0	0	0
Grn/Ped Delay										
Omit Yel, Yel P	0	0	0	0	0	0	0	0	0	0
Ped Out/Olp Ped										
StartYel, Next P	0	0	0	0	0	0	0	0	0	0
*StartupVehCall	1	2	3	4	5	6	7	8		
*StartupPedCall										

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases							
1	1	RED	5	6	0	0				
2	1	GREEN	5	6	0	0				
3	1	RED	7	8	0	0				
4	1	RED	7	8	0	0				
5	2	RED	1	2	0	0				
6	2	GREEN	1	2	0	0				
7	2	RED	3	4	0	0				
8	2	RED	3	4	0	0				
9	0	RED	0	0	0	0				
10	0	RED	0	0	0	0				
11	0	RED	0	0	0	0				
12	0	RED	0	0	0	0				

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	OFF		
TS2CVM	NONE		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

Screen Size	8	Metric	OFF
Startup Flash	0	Red Revert	2
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	RSt	Display Time	60
Yellow < 3"	OFF	Tone Disable	ON
Allow Skip Yel	OFF	AudioPedTime	0
Start Red Tm	6	Phase Mode	STD8
Startup Calls	UseProg	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	USER
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	3-6
*InhFYA Red St	OFF	Security Delay	0
RingA1go	0		

* - 76.12B or newer

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
NoPed Reserv								

Comm [6.2]

Port	Baud Rate	FCM
1	38400	6
2	9600	6
3	9600	6
4	9600	6

Comm [6.5] — Host IPs

IP Address:	10	53	26	131	ATMS			
Mask:	255	255	255	0	10	50	10	22
Gateway:	10	53	26	1	SG			
Port #:	5126				0	0	0	0

City of FRESNO

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4	0	0
	2	6	5	7	8	0	0
5	1	1	2	3	4	0	0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3	0	0
	2	5	6	8	7	0	0
14	1	1	2	4	3	0	0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: Behymer & Willow **ID:** 285 **Configuration:** Standard File

V76.12/13
Updated 12/6/17

Prepared by:	JT	Date Installed / By:	2/29/2020 (JT)
Checked by:	JT	Date Superseded:	

Date Printed: 2/28/20

[2.1] Coord Modes+

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Split	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: Behymer & Willow

ID: 285

Date Printed: 2/28/2020

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
1	0	0	1	1
2	0	0	2	1
3	0	0	3	1
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7	0	0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
11	0	0	0	1
12	0	0	0	1
13	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8	9	10
1	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
2	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
4	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
11	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
12	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
13	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Hold	Fit	Veh	Ped	MI
1	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
2	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
3	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
4	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
5	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
6	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
7	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
8	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
9	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	OFF
10	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	OFF
11		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
12	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
13		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF

[2.1] Coord Modes+

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Splt	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: Behymer & Willow

ID: 285

Date Printed: 2/28/2020

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
20	0	0	0	1
21	0	0	0	1
22	0	0	0	1
23	0	0	0	1
24	0	0	0	1
25	0	0	0	1
26	0	0	0	1
27	0	0	0	1
28	0	0	0	1
29	0	0	0	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8	9	10
20	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
22	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
23	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
24	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
25	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
26	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
27	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
28	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
29	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ret Hold	Flt	Min Veh	Min Ped	MI
20		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
21	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
22		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
23	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
24		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
25	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
26		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
27	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
28		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
29	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
31	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF

[2.7.X.3] TSP Split Table

Pat#	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
1	0	0	1	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
2	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	2	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
3	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	3	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
4	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	4	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
5	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	5	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
6	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	6	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
9 - FREE	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	9	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						

[2.9.2.(1-8)] Strategy Tables

STRATEGY_1

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_2

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_3

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_4

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_5

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_6

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_7

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_8

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

AGENDA ITEM NO. 3.

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

1	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
A	Conflict Olap									Red	1	
	Conflict Ped											
2	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
B	Conflict Olap									Red	1	
	Conflict Ped											
3	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
C	Conflict Olap									Red	1	
	Conflict Ped											
4	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
D	Conflict Olap									Red	1	
	Conflict Ped											
5	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
E	Conflict Olap									Red	1	
	Conflict Ped											
6	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
F	Conflict Olap									Red	1	
	Conflict Ped											
7	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
G	Conflict Olap									Red	1	
	Conflict Ped											
8	Included Ø									NORMAL		
	Modifier Ø									Grn		
	Conflict Ø									Yel	3	
H	Conflict Olap									Red	1	
	Conflict Ped											

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	ON
Xtra Incl Phases	OFF
InhibitLockInterval	Always

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.Pre #.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	OFF	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	RAIL	TS2	0	OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX

Preemption Times [3.#.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2	0	0	0	0	0	0	0	0
3		10	60	6		33		10
4	0	10	60	6	0	33	0	10
5		10	60	6		33		10
6	0	10	60	6	0	33	0	10

Preemption, Options [3.#.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt	Flash Dwell	Link
1	OFF	OFF	OFF	ON	
2	OFF	OFF	OFF	OFF	0
3	OFF	OFF	OFF	OFF	
4	OFF	OFF	OFF	OFF	0
5	OFF	OFF	OFF	OFF	
6	OFF	OFF	OFF	OFF	0

Preemption, Times+ [3.#.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2	0	0	0	0	0
3		20	10	3.9	2
4	0	20	10	3.9	2
5		20	10	3.9	2
6	0	20	10	3.9	2

Pre 1 = RR1
Pre 2 = RR2
Pre 3 = EVA
Pre 4 = EVB
Pre 5 = EVC
Pre 6 = EVD

Prog Parms+ (MM>1>5>2>X>3)

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 1-A

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 2-B

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 3-C

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 4-D

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

Phases [3.#.2] - set the Dwell Phases

Pre #	Column	1	2	3	4	5	6	7	8	9	10
1	Dwell Veh										
	Peds										
2	Dwell Veh										
	Peds										
3	Dwell Veh	2	5								
	Peds										
4	Dwell Veh	4	7								
	Peds										
5	Dwell Veh	6	1								
	Peds										
6	Dwell Veh	8	3								
	Peds										

Phases [3.#.2] - Trk Veh

Pre #	Phases			
1				
2				
3				
4				
5				
6				

Exit Phases [3.#.2]

No.	Exit Phase			
1				
2				
3	2	5		
4	4	7		
5	1	6		
6	3	8		

Overlaps+ [3.#.5]

Pre #		Preempt Overlaps +									
1	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
2	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
3	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
4	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
5	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
6	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										

City of FRESNO

ID: 285 **Name:** Behymer & Willow

Date Printed: 2/28/2020

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz		X		X		X		X								
	Page 1								Page 2							

Chan Settings [1.8.2]

17	18	19	20	21	22	23	24
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	USER

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	USER
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

CHANNELS+ [1.8.4]

Channel	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
Flash Green	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ID: 285 **NAME:** Behymer & Willow

I/O LOGIC [1.8.7]

Prt Date: 2/28/2020

Row#	Result			Operand_1					Operand_2					Operand_3					Timer	
	I/O	Fcn	=	Inv	Src	I/0	Fun	Logic Func	Inv	Src	I/0	Fun	Logic Func	Inv	Src	I/0	Fun	Logic Func	Dly	Sec
1	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
2	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
3	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
4	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
5	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
6	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
7	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
8	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
9	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
10	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	0	0
3	0	0	0	0
4	4	0	0	0
5	0	0	0	0
6	6	0	0	0
7	0	0	0	0
8	8	0	0	0

Veh Par 1-32 [5.1]

Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1I1U	1					0	0	0	255
2	2I2U	2	0	0	0	0	0	0	0	255
3	2I2L	2	0	0	2	0	0	0	0	255
4	2I3U	2	0	0	2	0	0	0	0	255
5	2I3L	2	0	0	2	0	0	0	0	255
6	2I4U	2	0	0	2	0	0	0	0	255
7	3I5U	3					0	0	0	255
8	4I6U	4	0	0	0	0	0	0	0	255
9	4I6L	4	0	10	2	0	0	0	0	255
10	4I7U	4	0	0	2	0	0	0	0	255
11	4I7L	4		15	2		0	0	0	255
12	4I8U	4			2		0	0	0	255
13	1I9U	1	0	0	0	0	0	0	0	255
14	3I9L	3	0	0	0	0	0	0	0	255
15	5J1U	5	0	0	0	0	0	0	0	255
16	6J2U	6					0	0	0	255
17	6J2L	6			2		0	0	0	255
18	6J3U	6			2		0	0	0	255
19	6J3L	6			2		0	0	0	255
20	6J4U	6			2		0	0	0	255
21	7J5U	7					0	0	0	255
22	8J6U	8	0	0	0	0	0	0	0	255
23	8J6L	8	0	0	2	0	0	0	0	255
24	8J7U	8	0	0	2	0	0	0	0	255
25	8J7L	8	0	15	2	0	0	0	0	255
26	8J8U	8	0	0	2	0	0	0	0	255
27	5J9U	5					0	0	0	255
28	7J9L	7					0	0	0	255
29	2I11U	2	0	0	2	0	0	0	0	255
30	4I11L	4	0	15	2	0	0	0	0	255
31	6J11U	6			2		0	0	0	255
32	8J11L	8		15	2		0	0	0	255
33	1I1L	1	0	0	0	0	0	0	0	255
34	2I4L	2			2		0	0	0	255
35	3I5L	3	0	0	0	0	0	0	0	255
36	4I8L	4		15	2		0	0	0	255
37	5J1L	5	0	0	0	0	0	0	0	255
38	6J4L	6			2		0	0	0	255
39	7J5L	7	0	0	0	0	0	0	0	255
40	8J8L	8			2		0	0	0	255
41	4I10U	4					0	0	0	255
42	4I10L	4					0	0	0	255
43	8J10U	8					0	0	0	255
44	8J10L	8					0	0	0	255

Vehicle Options 1-32 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	X	X	-	-	-	-	X	X
2	-	X	-	-	-	-	X	X
3	X	-	-	-	-	-	X	X
4	X	-	-	-	-	-	X	X
5	X	-	-	-	-	-	X	X
6	X	-	-	-	-	-	X	X
7	X	X	-	-	-	-	X	X
8	-	X	-	-	-	-	X	X
9	X	-	-	-	-	-	X	X
10	X	-	-	-	-	-	X	X
11	X	-	-	-	-	-	X	X
12	X	-	-	-	-	-	X	X
13	X	X	-	-	-	-	X	X
14	X	X	-	-	-	-	X	X
15	X	X	-	-	-	-	X	X
16	-	X	-	-	-	-	X	X
17	X	-	-	-	-	-	X	X
18	X	-	-	-	-	-	X	X
19	X	-	-	-	-	-	X	X
20	X	-	-	-	-	-	X	X
21	X	X	-	-	-	-	X	X
22	-	X	-	-	-	-	X	X
23	X	-	-	-	-	-	X	X
24	X	-	-	-	-	-	X	X
25	X	-	-	-	-	-	X	X
26	X	-	-	-	-	-	X	X
27	X	X	-	-	-	-	X	X
28	X	X	-	-	-	-	X	X
29	X	-	-	-	-	-	X	X
30	X	-	-	-	-	-	X	X
31	X	-	-	-	-	-	X	X
32	X	-	-	-	-	-	X	X
33	X	X	-	-	-	-	X	X
34	X	-	-	-	-	-	X	X
35	X	X	-	-	-	-	X	X
36	X	-	-	-	-	-	X	X
37	X	X	-	-	-	-	X	X
38	X	-	-	-	-	-	X	X
39	X	X	-	-	-	-	X	X
40	X	-	-	-	-	-	X	X
41	-	X	-	-	-	-	X	X
42	-	X	-	-	-	-	X	X
43	-	X	-	-	-	-	X	X
44	-	X	-	-	-	-	X	X

Parameters+ 1-32 [5.3]

Det #	Occupancy G	Occupancy Y	Occupancy R	Delay 1	Delay 2	Type		Dir	#
1	X	X	-			NORM		NBL1	1
2	X	X	-	0	0	NORM	0		2
3	X	X	-	0	0	STOPB	0		3
4	X	X	-	0	0	STOPB	0	SBT3	4
5	X	X	-	0	0	STOPB	0	SBR1	5
6	X	X	-	0	0	STOPB	0	SBT1	6
7	X	X	-			NORM		EBL1	7
8	X	X	-	0	0	NORM	0		8
9	X	X	-	0	0	STOPB	0		9
10	X	X	-	0	0	STOPB	0		10
11	X	X	-			STOPB			11
12	X	X	-			STOPB		WBT1	12
13	X	X	-	0	0	NORM	0		13
14	X	X	-	0	0	NORM	0		14
15	X	X	-	0	0	NORM	0	SBL1	15
16	X	X	-			NORM			16
17	X	X	-			STOPB			17
18	X	X	-			STOPB		NBT3	18
19	X	X	-			STOPB		NBR1	19
20	X	X	-			STOPB		NBT1	20
21	X	X	-			NORM		WBL1	21
22	X	X	-	0	0	NORM	0		22
23	X	X	-	0	0	STOPB	0		23
24	X	X	-	0	0	STOPB	0	EBT3	24
25	X	X	-	0	0	STOPB	0	EBR1	25
26	X	X	-	0	0	STOPB	0	EBT1	26
27	X	X	-			NORM			27
28	X	X	-			NORM			28
29	X	X	-	0	0	STOPB	0		29
30	X	X	-	0	0	STOPB	0		30
31	X	X	-			STOPB			31
32	X	X	-			STOPB			32
33	X	X	-	0	0	NORM	0	NBL2	33
34	X	X	-			STOPB		SBT2	34
35	X	X	-	0	0	NORM	0	EBL2	35
36	X	X	-			STOPB		WBR1	36
37	X	X	-	0	0	NORM	0	SBL2	37
38	X	X	-			STOPB		NBT2	38
39	X	X	-	0	0	NORM	0		39
40	X	X	-			STOPB		EBT2	40
41	X	X	-			NORM			41
42	X	X	-			NORM			42
43	X	X	-			NORM			43
44	X	X	-			NORM			44

ID: 285 **Name:** Behymer & Willow

Vol/Occ Period 0 Seconds / 5 Minutes

2/28/2020

1626

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8										
1	0	0	0	0									0	Off	DFT
2													0	Off	DFT
3	0	0	0	0									0	Off	DFT
4													0	Off	DFT
5	0	0	0	0									0	Off	DFT
6													0	Off	DFT
7	0	0	0	0									0	Off	DFT
8													0	Off	DFT
9	0	0	0	0									0	Off	DFT
10													0	Off	DFT
11	0	0	0	0									0	Off	DFT
12													0	Off	DFT
13	0	0	0	0									0	Off	DFT
14													0	Off	DFT
15	0	0	0	0									0	Off	DFT
16													0	Off	DFT
17	0	0	0	0									0	Off	DFT
18													0	Off	DFT
19	0	0	0	0									0	Off	DFT
20													0	Off	DFT
21	0	0	0	0									0	Off	DFT
22													0	Off	DFT
23	0	0	0	0									0	Off	DFT
24													0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	ENABLE	
Time Base Sync Ref	0	
GMT Offset	-	8
Daylight Savings	**Mon**	**Week**
Spring	3	2
Fall	11	1

NOTE: % and MI parameters are not used and are not shown above.

City of FRESNO

NAME: Behymer & Willow

2/28/2020 **ID:** 285

AGENDA ITEM NO. 3.

| Annual Schedule [4.3] | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | |

#	Alarm	Ev	Alr
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	X	X
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	X	X
17	Cycle Fault	X	-
18	Cycle Failure	X	-
19	Coordination Fault	X	X
20	Controller Fault	X	X
25	EEPROM CRC Fault	X	X
30	Coord Diagnostic Fault	X	X
37	Download Request	X	X
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	X	X
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	X	X
60	Coordination Failure	X	X
63	TSP Active Trigger	-	-
73	Controller Access	X	X
81	FIO Changed Status	X	X

#1 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

#2 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

#3 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

#4 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

I/O INPUT TABLE

	1	2	3	4	5	6	7	8
1	2	16	8	22	3	17	9	23
2	6	20	12	26	198	199	30	31
3	15	1	21	7	27	13	28	14
4	189	189	189	189	4	18	10	24
5	130	134	132	136	200	201	202	203
6	32	5	19	11	25	29	208	207
7	33	34	35	36	37	38	39	40
8	41	42	43	44	189	189	189	189

ACTION Table [4.5]

Act	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8	P1	P2
1	1	-	-	-	-	-	-	-	-	-	-	-	0	0
2	2	-	-	-	-	-	-	-	-	-	-	-	0	0
3	3	-	-	-	-	-	-	-	-	-	-	-	0	0
4	4	-	-	-	-	-	-	-	-	-	-	-	0	0
5	5	-	-	-	-	-	-	-	-	-	-	-	0	0
6	6	-	-	-	-	-	-	-	-	-	-	-	0	0
7	7	-	-	-	-	-	-	-	-	-	-	-	0	0
8	8	-	-	-	-	-	-	-	-	-	-	-	0	0
9	9	-	-	-	-	-	-	-	-	-	-	-	0	0
10	10	-	-	-	-	-	-	-	-	-	-	-	0	0
11	11	-	-	-	-	-	-	-	-	-	-	-	0	0
12	12	-	-	-	-	-	-	-	-	-	-	-	0	0
13	13	-	-	-	-	-	-	-	-	-	-	-	0	0
14	14	-	-	-	-	-	-	-	-	-	-	-	0	0
15	15	-	-	-	-	-	-	-	-	-	-	-	0	0
16	0	-	-	-	-	-	-	-	-	-	-	-	0	0
54	254	-	-	-	-	-	-	-	-	-	-	-	0	0
55	0	-	-	-	-	-	-	-	-	-	-	-	0	0

Alarm Parameters [1.6.7.1]

Pattern Events:	ON
Local Txmt Alarms:	OFF
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Preempt Events:	ON

City of FRESNO

Date Printed
2/28/2020

ID: 285 **Name:** Behymer & Willow

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	30	Veh Det 30
54	I2-8	31	Veh Det 31
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	32	Veh Det 32
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	29	Veh Det 29
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPUTS - 1.8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Function	Output Name
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5
C-11 OUTPUTS

1	O8-1	115	Not Used
2	O8-2	115	Not Used
3	O8-3	115	Not Used
4	O8-4	115	Not Used

I/O Inputs - 1.8.9.1.5
C-11 INPUTS

15	I7-1	33	Veh Det 33
16	I7-2	34	Veh Det 34
17	I7-3	35	Veh Det 35
18	I7-4	36	Veh Det 36
19	I7-5	37	Veh Det 37
20	I7-6	38	Veh Det 38
21	I7-7	39	Veh Det 39
22	I7-8	40	Veh Det 40
23	I8-1	41	Veh Det 41
24	I8-2	42	Veh Det 42
25	I8-3	43	Veh Det 43
26	I8-4	44	Veh Det 44
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

City of FRESNO

ID: 285

NAME: Behymer & Willow

Date Printed: 2/28/2020

ID Number: 285

LOCATION: Behymer & Willow

City of Fresno
332 Cabinet
44 Detector Plus Setup

	DETECTOR ASSIGNMENTS											ISOLATORS		
"I"	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call&Ext T2-1&2 C1-56 Det 1 NBL1	Ph 2 Ext T2-5&6 C1-39 Det 2 SB Far	Ph 2 Call&TP3 T2-9&10 C1-63 Det 4 SB Mid	Ph 2 Call&TP3 T4-1&2 C1-47 Det 6 SBT1	Ph 3 Call&Ext T4-5&6 C1-58 Det 7 EBL1	Ph 4 Ext T4-9&10 C1-41 Det 8 WB Far	Ph 4 Call&TP3 T6-1&2 C1-65 Det 10 WB Mid	Ph 4 Call&TP3 T6-5&6 C1-49 Det 12 WBT1	Ph 1 Call&Ext T6-9&10 C1-60 Det 13 NBLt Bk	Ph 2/4 Ext T10-5&6 C11-23 Det 41	Ph 2 Call&Ext T8-1 C1-80 Det 29 BIKE	Ph 2 PPB T8-4 C1-67	Ph 6 PPB T8-7 C1-68	FLASH SENSE T8-10 C1-81
LOWER	Ph 1 Call&Ext T2-3&4 C11-15 Det 33 NBL2	Ph 2 Call&TP3 T2-7&8 C1-43 Det 3 SB Bk	Ph 2 Call&Ext T2-11&12 C1-76 Det 5 SBRt	Ph 2 Call&TP3 T4-3&4 C11-16 Det 34 SBT2	Ph 3 Call&Ext T4-7&8 C11-17 Det 35 EBL2	Ph 4 Call&TP3 T4-11&12 C1-45 Det 9 WB Bk	Ph 4 Call&Ext T6-3&4 C1-78 Det 11 WBRt	Ph 4 Call&TP3 T6-7&8 C11-18 Det 36 WBT2	Ph 3 Call&Ext T6-11&12 C1-62 Det 14 EBLt Bk	Ph 2/4 Ext T10-7&8 C11-24 Det 42	Ph 4 Call&Ext T8-2 C1-53 Det 30 BIKE	Ph 4 PPB T8-5 C1-69	Ph 8 PPB T8-8 C1-70	STOP TIMING T8-11 C1-82
"J"	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call&Ext T3-1&2 C1-55 Det 15 SBL1	Ph 6 Ext T3-5&6 C1-40 Det 16 NB Far	Ph 6 Call&TP3 T3-9&10 C1-64 Det 18 NB Mid	Ph 6 Call&TP3 T5-1&2 C1-48 Det 20 NBT1	Ph 7 Call&Ext T5-5&6 C1-57 Det 21 WBL1	Ph 8 Ext T5-9&10 C1-42 Det 22 EB Far	Ph 8 Call&TP3 T7-1&2 C1-66 Det 24 EB Mid	Ph 8 Call&TP3 T7-5&6 C1-50 Det 26 EBT1	Ph 5 Call&Ext T7-9&10 C1-59 Det 27 SBLt Bk	Ph 6/8 Ext T10-9&10 C11-25 Det 43	Ph 6 Call&Ext T9-1 C1-54 Det 31 BIKE	EMER A Ph 2 + 5 T9-4 C1-71	EMER B Ph 4 + 7 T9-5 C1-72	RR1 FLASH T9-10 C1-51
LOWER	Ph 5 Call&Ext T3-3&4 C11-19 Det 37 SBL2	Ph 6 Call&TP3 T3-7&8 C1-44 Det 17 NB Bk	Ph 6 Call&Ext T3-11&12 C1-77 Det 19 NBRt	Ph 6 Call&TP3 T5-3&4 C11-20 Det 38 NBT2	Ph 7 Call&Ext T5-7&8 C11-21 Det 39 WBL2	Ph 8 Call&TP3 T5-11&12 C1-46 Det 23 EB Bk	Ph 8 Call&Ext T7-3&4 C1-79 Det 25 EBRt	Ph 8 Call&TP3 T7-7&8 C11-22 Det 40 EBT2	Ph 7 Call&Ext T7-11&12 C1-61 Det 28 WBLt Bk	Ph 6/8 EXT T10-11&12 C11-26 Det 44	Ph 8 Call&Ext T9-2 C1-75 Det 32 BIKE	EMER C Ph 1 + 6 T9-7 C1-73	EMER D Ph 3 + 8 T9-8 C1-74	RR2 LTD OP T9-11 C1-52

COMMENTS:

TIMING UPDATES AND MODIFICATIONS

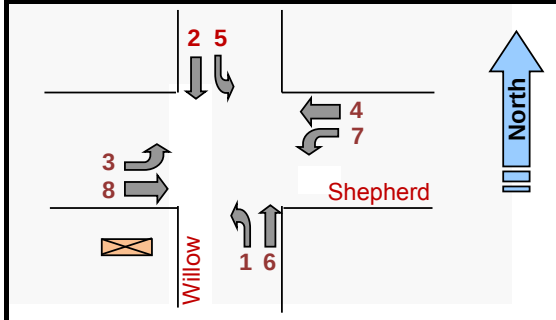
AGENDA ITEM NO. 3.

ID: 285 **NAME:** Behymer & Willow

DATE	CHANGES MADE	ATMS or CABINET	BY
2/28/2020	Updated All Red Start from 4 to 6 seconds. Updated timing calculations, FDW, and detector attributes.	ATMS	JT

AGENDA ITEM NO. 3.

Movement	NL	ST	EL	WT	SL	NT	WL	ET		
Times [1.1.1]	1	2	3	4	5	6	7	8	9	10
Min Green	8	8	8	8	8	8	8	8		0
Gap, Ext	2	5.8	2	3.9	2	5.8	2	5.2		0
Max 1	25	35	25	25	25	35	25	25		0
Max 2	17	25	17	15	17	25	17	15		0
Yel Clearance	4.3	4.7	3.6	5.2	4.3	4.7	4.8	5.2		0
Red Clearance	2	1	2	1	2	1	2	1		0
Walk	0	5	0	5		5		5		0
Ped Clearance	0	30	0	34		29		36		0
Red Revert	2	2	2	2	2	2	2	2		0
Add Initial	0		0			0		0		0
Max Initial	0		0			0		0		0
Time B4 Reduct	0	8	0	8		8		8		0
Cars B4 Reduct	0		0			0		0		0
Time To Reduce	0	18	0	11		18		11		0
Reduce By	0		0			0		0		0
Min Gap	2	2	2	2	2	2	2	2		0
DyMaxLim	0	60	0			60		0		0
Max Step	0	10	0			10		0		0
Options [1.1.2]	1	2	3	4	5	6	7	8	9	10
Enable	X	X	X	X	X	X	X	X		
Min Recall										
Max Recall										
Ped Recall										
Soft Recall		X				X				
Lock Calls										
Auto Flash Entry										
Auto Flash Exit										
Dual Entry		X		X		X		X		
Enable Simul Gap										
Gaurantee Passage										
Rest In Walk										
Conditonal Service										
Non-Actuated 1										
Non-Actuated 2										
Add Init Calc										



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8	9	10
Reservice										
PedClr Thru Yel										
SkipRed-NoCall										
Red Rest										
Max II										
*Max III										
Max Inhibit										
Ped Delay										
Red Rest on Gap										
Conflicting Phase	0	0	0	0	0	0	0	0	0	0
Grn/Ped Delay										
Omit Yel, Yel P	0	0	0	0	0	0	0	0	0	0
Ped Out/Olp Ped										
StartYel, Next P	0	0	0	0	0	0	0	0	0	0
*StartupVehCall	1	2	3	4	5	6	7	8		
*StartupPedCall										

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases							
1	1	RED	5	6	0	0				
2	1	GREEN	5	6	0	0				
3	1	RED	7	8	0	0				
4	1	RED	7	8	0	0				
5	2	RED	1	2	0	0				
6	2	GREEN	1	2	0	0				
7	2	RED	3	4	0	0				
8	2	RED	3	4	0	0				
9	0	RED	0	0	0	0				
10	0	RED	0	0	0	0				
11	0	RED	0	0	0	0				
12	0	RED	0	0	0	0				

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	OFF		
TS2CVM	NONE		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

Screen Size	8	Metric	OFF
Startup Flash	0	Red Revert	2
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	RSt	Display Time	60
Yellow < 3"	OFF	Tone Disable	ON
Allow Skip Yel	OFF	AudioPedTime	0
Start Red Tm	6	Phase Mode	STD8
Startup Calls	UseProg	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	USER
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	3-6
*InhFYA Red St	OFF	Security Delay	0
RingA1go	0		

* - 76.12B or newer

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
NoPed Reserv								

Comm [6.2]

Port	Baud Rate	FCM
1	38400	6
2	9600	6
3	9600	6
4	9600	6

Comm [6.5] — Host IPs

IP Address:	10	53	24	131	ATMS			
Mask:	255	255	255	0	10	50	10	22
Gateway:	10	53	24	1	SG			
Port #:	5125				0	0	0	0

City of FRESNO

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4	0	0
	2	6	5	7	8	0	0
5	1	1	2	3	4	0	0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3	0	0
	2	5	6	8	7	0	0
14	1	1	2	4	3	0	0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: Shepherd & Willow **ID:** 283 **Configuration:** Standard File

V76.12/13
Updated 12/6/17

Prepared by:	JT	Date Installed / By:	2/22/2020 (JT)
Checked by:	JT	Date Superseded:	

Date Printed: 2/22/20

1633

[2.1] Coord Modes+

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Split	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: Shepherd & Willow

ID: 283

Date Printed: 2/22/2020

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
1	0	0	1	1
2	0	0	2	1
3	0	0	3	1
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7	0	0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
11	0	0	0	1
12	0	0	0	1
13	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8	9	10
1	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
2	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
4	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
11	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
12	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
13	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Hold	Fit	Veh	Ped	MI
1	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
2	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
3	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
4	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
5	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
6	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
7	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
8	10	25	0	0	0	0	0	0	EndGRN	-	-	-	X	OFF
9	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	OFF
10	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	OFF
11		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
12	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
13		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF

[2.1] Coord Modes+

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Splt	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: Shepherd & Willow

ID: 283

Date Printed: 2/22/2020

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
20	0	0	0	1
21	0	0	0	1
22	0	0	0	1
23	0	0	0	1
24	0	0	0	1
25	0	0	0	1
26	0	0	0	1
27	0	0	0	1
28	0	0	0	1
29	0	0	0	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8	9	10
20	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
22	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
23	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
24	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
25	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
26	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
27	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
28	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
29	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0	0	0
	Crd-P										
	Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ret Hold	Flt	Min Veh	Min Ped	MI
20		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
21	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
22		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
23	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
24		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
25	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
26		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
27	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
28		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
29	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
31	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	OFF

[2.7.X.3] TSP Split Table

Pat#	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
1	0	0	1	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
2	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	2	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
3	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	3	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
4	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	4	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
5	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	5	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
6	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	6	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						
9 - FREE	Cyc	Off	Split	Seq	SPLITS	1	2	3	4	5	6	7	8	9	10
	0	0	9	1		0	0	0	0	0	0	0	0	0	0
					TSP - Max Reduction	0	0	0	0	0	0	0	0	0	0
					TSP - Max Extend	0	0	0	0	0	0	0	0	0	0
					Request	1	2	3	4						
					Strategy	0	0	0	0						
					TimSvcDes	0	0	0	0						
					TimEstDep	0	0	0	0						

[2.9.2.(1-8)] Strategy Tables

STRATEGY_1

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_2

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_3

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_4

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_5

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_6

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_7

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

STRATEGY_8

SvcPhases	0	0	0	0
Phs Omits	0	0	0	0
Ped Omits	0	0	0	0

AGENDA ITEM NO. 3.

AGENDA ITEM NO. 3.

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

1	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
A	Conflict Olap										Red	1
	Conflict Ped											
2	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
B	Conflict Olap										Red	1
	Conflict Ped											
3	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
C	Conflict Olap										Red	1
	Conflict Ped											
4	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
D	Conflict Olap										Red	1
	Conflict Ped											
5	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
E	Conflict Olap										Red	1
	Conflict Ped											
6	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
F	Conflict Olap										Red	1
	Conflict Ped											
7	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
G	Conflict Olap										Red	1
	Conflict Ped											
8	Included Ø										NORMAL	
	Modifier Ø										Grn	
	Conflict Ø										Yel	3
H	Conflict Olap										Red	1
	Conflict Ped											

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	ON
Xtra Incl Phases	OFF
InhibitLockInterval	Always

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.Pre #.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	OFF	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	RAIL	TS2	0	OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX

Preemption Times [3.#.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2	0	0	0	0	0	0	0	0
3		10	60	6		32		10
4	0	10	60	6	0	32	0	10
5		10	60	6		32		10
6	0	10	60	6	0	32	0	10

Preemption, Options [3.#.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt	Flash Dwell	Link
1	OFF	OFF	OFF	ON	
2	OFF	OFF	OFF	OFF	0
3	OFF	OFF	OFF	OFF	
4	OFF	OFF	OFF	OFF	0
5	OFF	OFF	OFF	OFF	
6	OFF	OFF	OFF	OFF	0

Preemption, Times+ [3.#.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2	0	0	0	0	0
3		20	10	3.9	2
4	0	20	10	3.9	2
5		20	10	3.9	2
6	0	20	10	3.9	2

Pre 1 = RR1
Pre 2 = RR2
Pre 3 = EVA
Pre 4 = EVB
Pre 5 = EVC
Pre 6 = EVD

Prog Parms+ (MM>1>5>2>X>3)

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 1-A

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 2-B

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 3-C

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

OverlapB+: 4-D

Leading Green	OFF	FYA MCE Disable	OFF
Transit Input	0	FYA Skip Red	OFF
FYA Delay Time	0	FYA AfterPreempt	OFF
Ped Call Clear	OFF		
Ped ClearTime	0	FYA ImmedReturn	OFF
Green Ext Inh	0	0	0

Phases [3.#.2] - set the Dwell Phases

Pre #	Column	1	2	3	4	5	6	7	8	9	10
1	Dwell Veh										
	Peds										
2	Dwell Veh										
	Peds										
3	Dwell Veh	2	5								
	Peds										
4	Dwell Veh	4	7								
	Peds										
5	Dwell Veh	6	1								
	Peds										
6	Dwell Veh	8	3								
	Peds										

Phases [3.#.2] - Trk Veh

Pre #	Phases			
1				
2				
3				
4				
5				
6				

Exit Phases [3.#.2]

No.	Exit Phase			
1				
2				
3	2	5		
4	4	7		
5	1	6		
6	3	8		

Overlaps+ [3.#.5]

Pre #		Preempt Overlaps +									
1	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
2	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
3	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
4	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
5	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										
6	Track	0	0	0	0	0	0	0	0	0	0
	Dwell										

City of FRESNO

ID: 283 **Name:** Shepherd & Willow

Date Printed: 2/22/2020

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz		X		X		X		X								
	Page 1								Page 2							

Chan Settings [1.8.2]

	17	18	19	20	21	22	23	24
Phase / Olap #								
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz								

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	USER

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	USER
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

CHANNELS+ [1.8.4]

Channel	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
Flash Green	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ID: 283 **NAME:** Shepherd & Willow

I/O LOGIC [1.8.7]

Prt Date: 2/22/2020

Row#	Result			Operand_1					Operand_2					Operand_3					Timer	
	I/O	Fcn	=	Inv	Src	I/0	Fun	Logic Func	Inv	Src	I/0	Fun	Logic Func	Inv	Src	I/0	Fun	Logic Func	Dly	Sec
1	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
2	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
3	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
4	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
5	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
6	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
7	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
8	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
9	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0
10	I	0	=	-	0	I	OFF	----	-	0	I	OFF	----	-	0	I	OFF	----	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	0	0
3	0	0	0	0
4	4	0	0	0
5	0	0	0	0
6	6	0	0	0
7	0	0	0	0
8	8	0	0	0

Veh Par 1-32 [5.1]											Vehicle Options 1-32 [5.2]									Parameters+ 1-32 [5.3]								
Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time	Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol	Det #	Occupancy G	Y	R	Delay 1	2	Type			
1	1I1U	1					0	0	0	255	1	X	X	-	-	-	-	X	X	1	X	X	-			NORM		NBL1	1
2	2I2U	2	0	0	0	0	0	0	0	255	2	-	X	-	-	-	-	X	X	2	X	X	-	0	0	NORM	0		2
3	2I2L	2	0	0	2	0	0	0	0	255	3	X	-	-	-	-	-	X	X	3	X	X	-	0	0	STOPB	0		3
4	2I3U	2	0	0	2	0	0	0	0	255	4	X	-	-	-	-	-	X	X	4	X	X	-	0	0	STOPB	0	SBT3	4
5	2I3L	2	0	0	2	0	0	0	0	255	5	X	-	-	-	-	-	X	X	5	X	X	-	0	0	STOPB	0	SBR1	5
6	2I4U	2	0	0	2	0	0	0	0	255	6	X	-	-	-	-	-	X	X	6	X	X	-	0	0	STOPB	0	SBT1	6
7	3I5U	3					0	0	0	255	7	X	X	-	-	-	-	X	X	7	X	X	-			NORM		EBL1	7
8	4I6U	4	0	0	0	0	0	0	0	255	8	-	X	-	-	-	-	X	X	8	X	X	-	0	0	NORM	0		8
9	4I6L	4	0	0	2	0	0	0	0	255	9	X	-	-	-	-	-	X	X	9	X	X	-	0	0	STOPB	0		9
10	4I7U	4	0	0	2	0	0	0	0	255	10	X	-	-	-	-	-	X	X	10	X	X	-	0	0	STOPB	0	WBT3	10
11	4I7L	4		15	2		0	0	0	255	11	X	-	-	-	-	-	X	X	11	X	X	-			STOPB		WBR1	11
12	4I8U	4			2		0	0	0	255	12	X	-	-	-	-	-	X	X	12	X	X	-			STOPB		WBT1	12
13	1I9U	1	0	0	0	0	0	0	0	255	13	X	X	-	-	-	-	X	X	13	X	X	-	0	0	NORM	0		13
14	3I9L	3	0	0	0	0	0	0	0	255	14	X	X	-	-	-	-	X	X	14	X	X	-	0	0	NORM	0		14
15	5J1U	5	0	0	0	0	0	0	0	255	15	X	X	-	-	-	-	X	X	15	X	X	-	0	0	NORM	0	SBL1	15
16	6J2U	6					0	0	0	255	16	-	X	-	-	-	-	X	X	16	X	X	-			NORM			16
17	6J2L	6			2		0	0	0	255	17	X	-	-	-	-	-	X	X	17	X	X	-			STOPB			17
18	6J3U	6			2		0	0	0	255	18	X	-	-	-	-	-	X	X	18	X	X	-			STOPB		NBT3	18
19	6J3L	6			2		0	0	0	255	19	X	-	-	-	-	-	X	X	19	X	X	-			STOPB		NBR1	19
20	6J4U	6			2		0	0	0	255	20	X	-	-	-	-	-	X	X	20	X	X	-			STOPB		NBT1	20
21	7J5U	7					0	0	0	255	21	X	X	-	-	-	-	X	X	21	X	X	-			NORM		WBL1	21
22	8J6U	8	0	0	0	0	0	0	0	255	22	-	X	-	-	-	-	X	X	22	X	X	-	0	0	NORM	0		22
23	8J6L	8	0	0	2	0	0	0	0	255	23	X	-	-	-	-	-	X	X	23	X	X	-	0	0	STOPB	0		23
24	8J7U	8	0	0	2	0	0	0	0	255	24	X	-	-	-	-	-	X	X	24	X	X	-	0	0	STOPB	0	EBT3	24
25	8J7L	8	0	15	2	0	0	0	0	255	25	X	-	-	-	-	-	X	X	25	X	X	-	0	0	STOPB	0	EBR1	25
26	8J8U	8	0	0	2	0	0	0	0	255	26	X	-	-	-	-	-	X	X	26	X	X	-	0	0	STOPB	0	EBT1	26
27	5J9U	5					0	0	0	255	27	X	X	-	-	-	-	X	X	27	X	X	-			NORM			27
28	7J9L	7					0	0	0	255	28	X	X	-	-	-	-	X	X	28	X	X	-			NORM			28
29	2I11U	2	0	0	2	0	0	0	0	255	29	X	-	-	-	-	-	X	X	29	X	X	-	0	0	STOPB	0		29
30	4I11L	4	0	15	2	0	0	0	0	255	30	X	-	-	-	-	-	X	X	30	X	X	-	0	0	STOPB	0		30
31	6J11U	6			2		0	0	0	255	31	X	-	-	-	-	-	X	X	31	X	X	-			STOPB			31
32	8J11L	8		15	2		0	0	0	255	32	X	-	-	-	-	-	X	X	32	X	X	-			STOPB			32
33	1I1L	1	0	0	0	0	0	0	0	255	33	X	X	-	-	-	-	X	X	33	X	X	-	0	0	NORM	0	NBL2	33
34	2I4L	2			2		0	0	0	255	34	X	-	-	-	-	-	X	X	34	X	X	-			STOPB		SBT2	34
35	3I5L	3	0	0	0	0	0	0	0	255	35	X	X	-	-	-	-	X	X	35	X	X	-	0	0	NORM	0	EBL2	35
36	4I8L	4			2		0	0	0	255	36	X	-	-	-	-	-	X	X	36	X	X	-			STOPB		WBT2	36
37	5J1L	5	0	0	0	0	0	0	0	255	37	X	X	-	-	-	-	X	X	37	X	X	-	0	0	NORM	0	SBL2	37
38	6J4L	6			2		0	0	0	255	38	X	-	-	-	-	-	X	X	38	X	X	-			STOPB		NBT2	38
39	7J5L	7	0	0	0	0	0	0	0	255	39	X	X	-	-	-	-	X	X	39	X	X	-	0	0	NORM	0	WBL2	39
40	8J8L	8			2		0	0	0	255	40	X	-	-	-	-	-	X	X	40	X	X	-			STOPB		EBT2	40
41	4I10U	2					0	0	0	255	41	-	X	-	-	-	-	X	X	41	X	X	-			NORM			41
42	4I10L	2					0	0	0	255	42	-	X	-	-	-	-	X	X	42	X	X	-			NORM			42
43	8J10U	6					0	0	0	255	43	-	X	-	-	-	-	X	X	43	X	X	-			NORM			43
44	8J10L	6					0	0	0	255	44	-	X	-	-	-	-	X	X	44	X	X	-			NORM			44

ID: 283 **Name:** Shepherd & Willow

Vol/Occ Period 0 Seconds 5 Minutes

2/22/2020

1639

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	-	-	-	-	-	-	-	-
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8										
1	0	0	0	0									0	Off	DFT
2													0	Off	DFT
3	0	0	0	0									0	Off	DFT
4													0	Off	DFT
5	0	0	0	0									0	Off	DFT
6													0	Off	DFT
7	0	0	0	0									0	Off	DFT
8													0	Off	DFT
9	0	0	0	0									0	Off	DFT
10													0	Off	DFT
11	0	0	0	0									0	Off	DFT
12													0	Off	DFT
13	0	0	0	0									0	Off	DFT
14													0	Off	DFT
15	0	0	0	0									0	Off	DFT
16													0	Off	DFT
17	0	0	0	0									0	Off	DFT
18													0	Off	DFT
19	0	0	0	0									0	Off	DFT
20													0	Off	DFT
21	0	0	0	0									0	Off	DFT
22													0	Off	DFT
23	0	0	0	0									0	Off	DFT
24													0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	ENABLE	
Time Base Sync Ref	0	
GMT Offset	-	8
Daylight Savings	**Mon**	**Week**
Spring	3	2
Fall	11	1

NOTE: % and MI parameters are not used and are not shown above.

City of FRESNO

NAME: Shepherd & Willow

2/22/2020 **ID:** 283

AGENDA ITEM NO. 3.

| Annual Schedule [4.3] | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | |

#	Alarm	Ev	Alr
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	X	X
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	X	X
17	Cycle Fault	X	-
18	Cycle Failure	X	-
19	Coordination Fault	X	X
20	Controller Fault	X	X
25	EEPROM CRC Fault	X	X
30	Coord Diagnostic Fault	X	X
37	Download Request	X	X
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	X	X
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	X	X
60	Coordination Failure	X	X
63	TSP Active Trigger	-	-
73	Controller Access	X	X
81	FIO Changed Status	X	X

#1 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

#2 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

#3 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

#4 Bus Preempt

Enable	OFF	Min	0	Prior. Phases	0	0	0	0	
Coor+Pre	OFF	Max	0	---TSP---					
Lock Mode	MAX	Lock	0	Headway	0				
No Skip	OFF	Alt Table	0	GrpLock	OFF				
Qjump	OFF	HoldDwell	#N/A	FreeMod	OFF				

I/O INPUT TABLE

	1	2	3	4	5	6	7	8
1	2	16	8	22	3	17	9	23
2	6	20	12	26	198	199	30	31
3	15	1	21	7	27	13	28	14
4	189	189	189	189	4	18	10	24
5	130	134	132	136	200	201	202	203
6	32	5	19	11	25	29	208	207
7	33	34	35	36	37	38	39	40
8	41	42	43	44	189	189	189	189

ACTION Table [4.5]

Act	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8	P1	P2
1	1	-	-	-	-	-	-	-	-	-	-	-	0	0
2	2	-	-	-	-	-	-	-	-	-	-	-	0	0
3	3	-	-	-	-	-	-	-	-	-	-	-	0	0
4	4	-	-	-	-	-	-	-	-	-	-	-	0	0
5	5	-	-	-	-	-	-	-	-	-	-	-	0	0
6	6	-	-	-	-	-	-	-	-	-	-	-	0	0
7	7	-	-	-	-	-	-	-	-	-	-	-	0	0
8	8	-	-	-	-	-	-	-	-	-	-	-	0	0
9	9	-	-	-	-	-	-	-	-	-	-	-	0	0
10	10	-	-	-	-	-	-	-	-	-	-	-	0	0
11	11	-	-	-	-	-	-	-	-	-	-	-	0	0
12	12	-	-	-	-	-	-	-	-	-	-	-	0	0
13	13	-	-	-	-	-	-	-	-	-	-	-	0	0
14	14	-	-	-	-	-	-	-	-	-	-	-	0	0
15	15	-	-	-	-	-	-	-	-	-	-	-	0	0
16	0	-	-	-	-	-	-	-	-	-	-	-	0	0
54	254	-	-	-	-	-	-	-	-	-	-	-	0	0
55	0	-	-	-	-	-	-	-	-	-	-	-	0	0

Alarm Parameters [1.6.7.1]

Pattern Events:	ON
Local Txmt Alarms:	OFF
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Preempt Events:	ON

City of FRESNO

Date Printed
2/22/2020

ID: 283 **Name:** Shepherd & Willow

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	30	Veh Det 30
54	I2-8	31	Veh Det 31
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	32	Veh Det 32
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	29	Veh Det 29
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPUTS - 1.8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Function	Output Name
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5
C-11 OUTPUTS

1	O8-1	115	Not Used
2	O8-2	115	Not Used
3	O8-3	115	Not Used
4	O8-4	115	Not Used

I/O Inputs - 1.8.9.1.5
C-11 INPUTS

15	I7-1	33	Veh Det 33
16	I7-2	34	Veh Det 34
17	I7-3	35	Veh Det 35
18	I7-4	36	Veh Det 36
19	I7-5	37	Veh Det 37
20	I7-6	38	Veh Det 38
21	I7-7	39	Veh Det 39
22	I7-8	40	Veh Det 40
23	I8-1	41	Veh Det 41
24	I8-2	42	Veh Det 42
25	I8-3	43	Veh Det 43
26	I8-4	44	Veh Det 44
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

City of FRESNO

ID: 283

NAME: Shepherd & Willow

Date Printed: 2/22/2020

ID Number: 283

LOCATION: Shepherd & Willow

City of Fresno
332 Cabinet
44 Detector Plus Setup

	DETECTOR ASSIGNMENTS											ISOLATORS		
"I"	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call&Ext T2-1&2 C1-56 Det 1 NBL1	Ph 2 Ext T2-5&6 C1-39 Det 2 SB Far	Ph 2 Call&TP3 T2-9&10 C1-63 Det 4 SB Mid	Ph 2 Call&TP3 T4-1&2 C1-47 Det 6 SBT1	Ph 3 Call&Ext T4-5&6 C1-58 Det 7 EBL1	Ph 4 Ext T4-9&10 C1-41 Det 8 WB Far	Ph 4 Call&TP3 T6-1&2 C1-65 Det 10 WB Mid	Ph 4 Call&TP3 T6-5&6 C1-49 Det 12 WBT1	Ph 1 Call&Ext T6-9&10 C1-60 Det 13 NBLt Bk	Ph 2/4 Ext T10-5&6 C11-23 Det 41	Ph 2 Call&Ext T8-1 C1-80 Det 29 BIKE	Ph 2 PPB T8-4 C1-67	Ph 6 PPB T8-7 C1-68	FLASH SENSE T8-10 C1-81
LOWER	Ph 1 Call&Ext T2-3&4 C11-15 Det 33 NBL2	Ph 2 Call&TP3 T2-7&8 C1-43 Det 3 SB Bk	Ph 2 Call&Ext T2-11&12 C1-76 Det 5 SBRt	Ph 2 Call&TP3 T4-3&4 C11-16 Det 34 SBT2	Ph 3 Call&Ext T4-7&8 C11-17 Det 35 EBL2	Ph 4 Call&TP3 T4-11&12 C1-45 Det 9 WB Bk	Ph 4 Call&Ext T6-3&4 C1-78 Det 11 WBRt	Ph 4 Call&TP3 T6-7&8 C11-18 Det 36 WBT2	Ph 3 Call&Ext T6-11&12 C1-62 Det 14 EBLt Bk	Ph 2/4 Ext T10-7&8 C11-24 Det 42	Ph 4 Call&Ext T8-2 C1-53 Det 30 BIKE	Ph 4 PPB T8-5 C1-69	Ph 8 PPB T8-8 C1-70	STOP TIMING T8-11 C1-82
"J"	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call&Ext T3-1&2 C1-55 Det 15 SBL1	Ph 6 Ext T3-5&6 C1-40 Det 16 NB Far	Ph 6 Call&TP3 T3-9&10 C1-64 Det 18 NB Mid	Ph 6 Call&TP3 T5-1&2 C1-48 Det 20 NBT1	Ph 7 Call&Ext T5-5&6 C1-57 Det 21 WBL1	Ph 8 Ext T5-9&10 C1-42 Det 22 EB Far	Ph 8 Call&TP3 T7-1&2 C1-66 Det 24 EB Mid	Ph 8 Call&TP3 T7-5&6 C1-50 Det 26 EBT1	Ph 5 Call&Ext T7-9&10 C1-59 Det 27 SBLt Bk	Ph 6/8 Ext T10-9&10 C11-25 Det 43	Ph 6 Call&Ext T9-1 C1-54 Det 31 BIKE	EMER A Ph 2 + 5 T9-4 C1-71	EMER B Ph 4 + 7 T9-5 C1-72	RR1 FLASH T9-10 C1-51
LOWER	Ph 5 Call&Ext T3-3&4 C11-19 Det 37 SBL2	Ph 6 Call&TP3 T3-7&8 C1-44 Det 17 NB Bk	Ph 6 Call&Ext T3-11&12 C1-77 Det 19 NBRt	Ph 6 Call&TP3 T5-3&4 C11-20 Det 38 NBT2	Ph 7 Call&Ext T5-7&8 C11-21 Det 39 WBL2	Ph 8 Call&TP3 T5-11&12 C1-46 Det 23 EB Bk	Ph 8 Call&Ext T7-3&4 C1-79 Det 25 EBRt	Ph 8 Call&TP3 T7-7&8 C11-22 Det 40 EBT2	Ph 7 Call&Ext T7-11&12 C1-61 Det 28 WBLt Bk	Ph 6/8 EXT T10-11&12 C11-26 Det 44	Ph 8 Call&Ext T9-2 C1-75 Det 32 BIKE	EMER C Ph 1 + 6 T9-7 C1-73	EMER D Ph 3 + 8 T9-8 C1-74	RR2 LTD OP T9-11 C1-52

COMMENTS:

TIMING UPDATES AND MODIFICATIONS

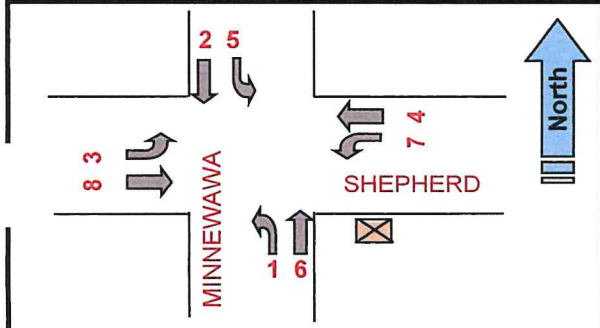
AGENDA ITEM NO. 3.

ID: 283 **NAME:** Shepherd & Willow

DATE	CHANGES MADE	ATMS or CABINET	BY
2/22/2020	Made minor changes to timing calculations and updated detector attributes. Set intersection back to 8 phase operation from Split		
	Phase operations due to construction.		

CITY of CLOVIS

Movement	NL	ST	EL	WT	SL	NT	WL	ET
Times [1.1.1]	1	2	3	4	5	6	7	8
Min Green	11	8	11	9	11	8	11	9
Gap, Ext	2	4	2	4.4	2	3.2	2	4.2
Max 1	25	40	25	40	25	40	25	40
Max 2	0		0			0		0
Yel Clearance	3.0	5.0	3.0	5.0	3.0	5.0	3.0	5.0
Red Clearance	1	1	1	1	1	1	1	1
Walk	0	7	0	7		7		7
Ped Clearance	0	25	0	23		25		25
Red Revert	1	1	1	1	1	1	1	1
Add Initial	0		0			0		0
Max Initial	0		0			0		0
Time B4 Reduct	0	19	0	18		19		18
Cars B4 Reduct	0		0			0		0
Time To Reduce	0	11	0	12		11		12
Reduce By	0		0			0		0
Min Gap	2	2.5	2	2.8	2	2	2	2.6
DyMaxLim	31	46	31	46	31	46	31	46
Max Step	6	6	6	6	6	6	6	6
Options [1.1.2]	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Min Recall								
Max Recall								
Ped Recall								
Soft Recall				X				X
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		X		X		X		X
Enable Simul Gap	X	X	X	X	X	X	X	X
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
SkipRed-NoCall								
Red Rest								
Max II								
*Max III								
Max Inhibit								
Ped Delay								
Red Rest on Gap								
Conflicting Phase	0	0	0	0	0	0	0	0
Grn/Ped Delay								
Omit Yel, Yel P	0	0	0	0	0	0	0	0
Ped Out/Olp Ped								
StartYel, Next P	0	0	0	0	0	0	0	0
*StartupVehCall	1	2	3	4	5	6	7	8
*StartupPedCall								

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases			
1	1	RED	5	6	0	0
2	1	RED	5	6	0	0
3	1	RED	7	8	0	0
4	1	GREEN	7	8	0	0
5	2	RED	1	2	0	0
6	2	RED	1	2	0	0
7	2	RED	3	4	0	0
8	2	GREEN	3	4	0	0
9	0	RED	0	0	0	0
10	0	RED	0	0	0	0
11	0	RED	0	0	0	0
12	0	RED	0	0	0	0

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	OFF		
TS2CVM	NONE		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

*Screen Size	8	Metric	OFF
Startup Flash	0	Red Revert	1
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	RSt	Display Time	30
Yellow < 3"	OFF	Tone Disable	ON
Allow Skip Yel	OFF	AudioPedTime	OFF
Start Red Tm	6	Phase Mode	STD8
*Startup Calls	OFF	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	USER
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	OFF
*InhFYA Red St	Off	*SecurityDelay	0

* - 76.12B or newer

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Comm [6.2]

Port	Baud Rate	FCM
1	9600	6
2	9600	6
3	1200	0
4	1200	0

Comm [6.5]

					Host IPs			
IP Address:	10	128	1	51	ATMS			
Mask:	255	255	255	0	172	26	17	230
Gateway:	10	128	1	254	SG			
Port #:	5051				0	0	0	0

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4		0
	2	6	5	7	8		0
5	1	1	2	3	4	0	0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3		0
	2	5	6	8	7		0
14	1	1	2	4	3	0	0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: MINNEWAWA @ SHEPHERD **ID:** 299 **Configuration:** Standard File

V76.12
ATMS 1.5.45.263

Prepared by:	T. Barker	Date Installed / By:	1/10/2022
Checked by:	T. Barker	Date Superseded:	

Date Printed: 1/10/22

[2.1] Coord Modes+

Test OpMode	0
Correction	LONG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Splt	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: MINNEWAWA @ SHEPHERD

CITY OF CLOVIS

ID: 293

Date Printed: 12/2/2019

[2.4] Patterns

Pat#	Cyc	Off-Set	Split	Seq
1	0	0	1	1
2	0	0	2	1
3	0	0	3	1
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7		0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8
1	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
2	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
4	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ret Hold	Flt	Veh	Ped	FRC MODE
1	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
2	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
3	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
4	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
5	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
6	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
7	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
8	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
9	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
10	10	25	0	0	0	0	0	0	EndGRN	-	-	-	-	
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
31		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

1 A	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
2 B	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
3 C	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
4 D	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
5 E	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
6 F	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
7 G	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	
8 H	Included Ø		NORMAL		
	Modifier Ø		Grn		
	Conflict Ø		Yel	3	
	Conflict Olap		Red	1	
	Conflict Ped		LG	OFF	

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	EXT
Max Seek Track Time	0
Max Seek Dwell Time	0

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.Pre #.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	ON	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	EMERG	TS2		OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2		OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2		OFF	OFF	OFF	MAX

Preemption Times [3.#.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2								
3					4	19		
4					4	18		
5					4	19		
6					4	20		

Preemption, Options [3.#.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt#	Flash Dwell	Link
1	ON	ON	OFF	ON	
2	OFF	ON	OFF	OFF	
3	OFF	OFF	OFF	OFF	
4	OFF	OFF	OFF	OFF	
5	OFF	OFF	OFF	OFF	
6	OFF	OFF	OFF	OFF	

Preemption, Times+ [3.#.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2					
3					
4					
5					
6					

Pre 1 = RR1
Pre 2 = RR2
Pre 3 = EVA
Pre 4 = EVB
Pre 5 = EVC
Pre 6 = EVD

Phases [3.#.2] - set the Dwell Phases

Pre #	Column	1	2	3	4	5	6	7	8	9	10
1	Dwell Veh										
	Peds										
2	Dwell Veh										
	Peds										
3	Dwell Veh	2	5								
	Peds										
4	Dwell Veh	4	7								
	Peds										
5	Dwell Veh	1	6								
	Peds										
6	Dwell Veh	3	8								
	Peds										

Phases [3.#.2] - Trk Veh

Pre #	Phases
1	
2	
3	
4	
5	
6	

Exit Phases [3.#.2]

No.	Exit Phase									
1	4	8								
2										
3	2	6								
4	4	8								
5	2	6								
6	4	8								

Overlaps+ [3.#.5]

Pre #		Preempt Overlaps +									
1	Track										
	Dwell										
2	Track										
	Dwell										
3	Track										
	Dwell										
4	Track										
	Dwell										
5	Track										
	Dwell										
6	Track										
	Dwell										

Low Priority Preempts [3.X; where X = 7 thru 10]

Pre #	Enb	C+P	Lock	NoSkip	Qjump	Times Alt Tbl	Min	Max	Lock	Priorty Phases			
7	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
8	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
9	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
10	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0

Advance Times [3.x.8]

	1	2	3	4	5	6
YelChng	0	0	0	0	0	0
RedClr	0	0	0	0	0	0
TrkYelChng	0	0	0	0	0	0
TrkRedClr	0	0	0	0	0	0

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	OFF
Xtra Incl Phases	OFF
InhibitLockInterval	Always

PREEMPTION NOTE: Each preemption has it's own set of menus. To access each menu :

a. Press "3" for preemption

b. Then enter "Preempt number" (1 through 6 and shown as "#" in Schedules above)

c. Then enter "number of Menu item" you want to access (*1-Times, 2-Phases, 3-Options, 4-Times+, 5-Overlaps+ or 6-Options+*)

d. Once in an above menu push Escape once to go back to main preempton menu.

City of CLOVIS

Name: MINNEWAWA @ SHEI

ID: 293

Date Printed: 12/2/2019

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz		X		X		X		X								
	Page 1								Page 2							

Chan Settings [1.8.2]

17	18	19	20	21	22	23	24
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	USER

CHANNELS+ [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	USER
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

City of CLOVIS

I/O LOGIC [1.8.7]

Row#	Result		Function			OP	Function			OP	Function			OP	Timer	
	I/O	Fcn	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Dly	Sec
1	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
2	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
3	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
4	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
5	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
6	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
7	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
8	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
9	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
10	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	5	0
3	0	0	0	0
4	4	0	5	0
5	0	0	0	0
6	6	0	5	0
7	0	0	0	0
8	8	0	5	0

Page 4

Date Printed: 12/2/2019

ID: 293

AGENDA ITEM NO. 3.

Veh Par 1-32 [5.1]

Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1I1U	1					0	0	0	255
2	2I2U	2	0	0.0	1.4	0	0	0	0	255
3	2I2L	2	0	0.0	0.0	0	0	0	0	255
4	2I3U	2	0	10.0	0.0	0	0	0	0	255
5	2I3L	2	0	0.0	2.0	0	0	0	0	255
6	2I4U	2	0	0.0	2.0	20	0	0	0	255
7	3I5U	3					0	0	0	255
8	4I6U	4	0	0.0	1.5	0	0	0	0	255
9	4I6L	4	0	0.0	0.0	0	0	0	0	255
10	4I7U	4	0	10.0	0.0	0	0	0	0	255
11	4I7L	4			2.0		0	0	0	255
12	4I8U	4			2.0	20	0	0	0	255
13	1I9U	1	0	0.0	0.0	0	0	0	0	255
14	3I9L	3	0	0.0	0.0	0	0	0	0	255
15	5J1U	5	0	0.0	0.0	0	0	0	0	255
16	6J2U	6			1.2		0	0	0	255
17	6J2L	6			0.7		0	0	0	255
18	6J3U	6		10.0			0	0	0	255
19	6J3L	6			2.0		0	0	0	255
20	6J4U	6			2.0	20	0	0	0	255
21	7J5U	7					0	0	0	255
22	8J6U	8	0	0.0	1.4	0	0	0	0	255
23	8J6L	8	0	0.0	0.1	0	0	0	0	255
24	8J7U	8	0	10.0	0.0	0	0	0	0	255
25	8J7L	8	0	0.0	2.0	20	0	0	0	255
26	8J8U	8	0	0.0	2.0	20	0	0	0	255
27	5J9U	5					0	0	0	255
28	7J9L	7					0	0	0	255
29	2I11U	2	0	0.0	0.0	0	0	0	0	255
30	4I11L	4	0	0.0	0.0	0	0	0	0	255
31	6J11U	6					0	0	0	255
32	8J11L	8					0	0	0	255
33	1I1L	1	0	0.0	0.0	0	0	0	0	255
34	2I4L	2			2.0	20	0	0	0	255
35	3I5L	3	0	0	0.0	0	0	0	0	255
36	4I8L	4			2.0	20	0	0	0	255
37	5J1L	5	0	0	0.0	0	0	0	0	255
38	6J4L	6			2.0	20	0	0	0	255
39	7J5L	7	0	0	0.0	0	0	0	0	255
40	8J8L	8			2.0	20	0	0	0	255
41	4I10U	4					0	0	0	255
42	4I10L	4					0	0	0	255
43	8J10U	8					0	0	0	255
44	8J10L	8					0	0	0	255

Vehicle Options 1-32 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	X	X	-	-	X	-	-	X
2	X	X	-	-	-	-	-	X
3	X	X	-	-	-	-	-	X
4	X	X	-	-	-	-	-	X
5	X	X	-	-	-	-	-	-
6	X	-	X	-	-	-	-	X
7	X	X	-	-	X	-	-	X
8	X	X	-	-	-	-	-	X
9	X	X	-	-	-	-	-	X
10	X	X	-	-	-	-	-	X
11	X	X	-	-	X	-	-	-
12	X	-	X	-	-	-	-	X
13	X	X	-	-	X	-	-	-
14	X	X	-	-	X	-	-	-
15	X	X	-	-	X	-	-	X
16	-	X	-	-	-	-	-	X
17	X	X	-	-	-	-	-	X
18	X	X	-	-	-	-	-	X
19	X	X	-	-	X	-	-	-
20	X	-	X	-	-	-	-	X
21	X	X	-	-	X	-	-	X
22	X	X	-	-	-	-	-	X
23	X	X	-	-	-	-	-	X
24	X	X	-	-	-	-	-	X
25	X	-	X	-	-	-	-	-
26	X	-	X	-	-	-	-	X
27	X	X	-	-	X	-	-	-
28	X	X	-	-	X	-	-	-
29	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-
33	X	X	-	-	X	-	-	X
34	X	-	X	-	-	-	-	-
35	X	X	-	-	X	-	-	X
36	X	-	X	-	-	-	-	-
37	X	X	-	-	X	-	-	X
38	X	-	X	-	-	-	-	X
39	X	X	-	-	X	-	-	X
40	X	-	X	-	-	-	-	X
41	-	X	-	-	-	-	-	-
42	-	X	-	-	-	-	-	-
43	-	X	-	-	-	-	-	-
44	-	X	-	-	-	-	-	-

Parameters+ 1-32 [5.3]

Det #	Occupancy G	Occupancy Y	Occupancy R	Delay 1	Delay 2	Type	Src	Dir	Type	#
1	-	-	-			NORM		NBLT Front		1
2	-	-	-	0	0	NORM	0	SB INT		2
3	-	-	-	0	0	NORM	0	SB FAR		3
4	-	-	-	0	0	NORM	0	SBRT		4
5	-	-	-	0	0	NORM	0	SB BIKE		5
6	-	-	-	0	0	NORM	0	SB Front		6
7	-	-	-			NORM		EBLT Front		7
8	-	-	-	0	0	NORM	0	WB INT		8
9	-	-	-	0	0	NORM	0	WB FAR		9
10	-	-	-	0	0	NORM	0	WBRT		10
11	-	-	-			NORM		WB BIKE		11
12	-	-	-			NORM		WB Front		[illegible]
13	-	-	-			NORM		NBLT Loops		[illegible]
14	-	-	-			NORM		EBLT Loops		14
15	-	-	-			NORM		SBLT Front		15
16	-	-	-			NORM		NB INT		16
17	-	-	-			NORM		NB FAR		17
18	-	-	-			NORM		NBRT		18
19	-	-	-			NORM		NB BIKE		19
20	-	-	-			NORM		NB Front		20
21	-	-	-			NORM		WBLT Front		21
22	-	-	-	0	0	NORM	0	EB INT		22
23	-	-	-	0	0	NORM	0	EB FAR		23
24	-	-	-	0	0	NORM	0	EBRT		24
25	-	-	-	0	0	NORM	0	EB Back		25
26	-	-	-	0	0	NORM	0	EB #1 Front		26
27	-	-	-			NORM		SBLT Loops		27
28	-	-	-			NORM		WBLT Loops		28
29	-	-	-	0	0	BIKE	0	Not in Use		[illegible]
30	-	-	-	0	0	BIKE	0	Not in Use		[illegible]
31	-	-	-			BIKE		Not in Use		31
32	-	-	-			BIKE		Not in Use		32
33	-	-	-	0	0	NORM	0	Not in Use		33
34	-	-	-			NORM		SB Back		34
35	-	-	-	0	0	NORM	0	Not in Use		35
36	-	-	-			NORM		WB Back		36
37	-	-	-	0	0	NORM	0	Not in Use		37
38	-	-	-			NORM		NB Back		38
39	-	-	-	0	0	NORM	0	Not in Use		39
40	-	-	-			NORM		EB #2 Front		40
41	-	-	-			NORM		Not in Use		41
42	-	-	-			NORM		Not in Use		42
43	-	-	-			NORM		Not in Use		43
44	-	-	-			NORM		Not in Use		44

ID: 299 **Name:** MINNEWAWA @ SHEPHERD

Vol/Occ Period 0 Seconds / 15 Minutes

1/10/2022

1650

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	X	X	X	X	X	X	X	X
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8			
1						0	Off	DFT
2						0	Off	DFT
3						0	Off	DFT
4						0	Off	DFT
5						0	Off	DFT
6						0	Off	DFT
7						0	Off	DFT
8						0	Off	DFT
9						0	Off	DFT
10	1					0	Off	DFT
11						0	Off	DFT
12						0	Off	DFT
13						0	Off	DFT
14						0	Off	DFT
15						0	Off	DFT
16						0	Off	DFT
17						0	Off	DFT
18						0	Off	DFT
19						0	Off	DFT
20						0	Off	DFT
21						0	Off	DFT
22						0	Off	DFT
23						0	Off	DFT
24						0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	DISABLE	
Time Base Sync Ref	0	
GMT Offset	-	0
Daylight Savings	**Mon**	**Week**
Spring	3	2
Fall	11	1

City of CLOVIS

NAME: MINNEWAWA @ SHEPHERD

12/2/2019 **ID:** 293

AGENDA ITEM NO. 3.

Annual Schedule [4.3]

| | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | |

#	Alarm	Ev	Air
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	X	X
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	-	-
17	Cycle Fault	X	X
18	Cycle Failure	X	X
19	Coordination Fault	X	X
20	Controller Fault	X	X
21	Detector SDLC Fault	-	-
22	MMU SDLC Fault	-	-
23	Critical SDLC Fault	-	-
24	SDLC Res. Frame Fault	-	-
25	EEPROM CRC Fault	X	X
26	Detector Diagnostic Fault	-	-
27	Detector Fault from SDLC	-	-
28	Queue detector alarm	-	-
29	Ped Fault	-	-
30	Coord Diagnostic Fault	X	X
37	Download Request	X	X
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	-	-
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	-	-
60	Coordination Failure	X	X
73	Controller Access	X	X
81	FIO Changed Status	X	X

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alarm Parameters [1.6.7.1]

Preempt Events Enable:	ON
Loc Pattern Event Enable:	ON
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Local Txmt Alarms:	OFF
Mon/Flash Alarm Delay:	15

City of CLOVIS

Date Printed
12/2/2019

ID: 293 Name: MINNEWAWA @ SHEPHERD

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	189	Unused
54	I2-8	189	Unused
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	189	Unused
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	178	Int Advance
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPU - 1.8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Fu	
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5
C-11 OUTPUTS

1	O8-1	115	Not Used
2	O8-2	115	Not Used
3	O8-3	115	Not Used
4	O8-4	115	Not Used

I/O Inputs - 1.8.9.1.5
C-11 INPUTS

15	I7-1	33	Veh Det 33
16	I7-2	34	Veh Det 34
17	I7-3	35	Veh Det 35
18	I7-4	36	Veh Det 36
19	I7-5	37	Veh Det 37
20	I7-6	38	Veh Det 38
21	I7-7	39	Veh Det 39
22	I7-8	40	Veh Det 40
23	I8-1	41	Veh Det 41
24	I8-2	42	Veh Det 42
25	I8-3	43	Veh Det 43
26	I8-4	44	Veh Det 44
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

City of CLOVIS

ID: 293

NAME: MINNEWAWA @ SHEPHERD

Date Printed: 12/2/2019

Pag

ID NUMBER: C0293

LOCATION: MINNEWAWA and SHEPHERD

T. Barker
6/22/2020

CITY OF CLOVIS
332L CABINET
44 DETECTOR SETUP

DETECTOR ASSIGNMENTS

	NBLT	SB INT	SBRT	SB NEAR	EBLT	WB INT	WBRT	WB NEAR	NBLT			ISOLATORS West Leg	ISOLATORS East Leg	
I	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call & Ext T2-1 & 2 C1-56 DET 1 RED LOCK FRONT	Ph 2 Call & Ext T2-5 & 6 C1-39 DET 2 1.4	Ph 2 Call & Ext T2-9 & 10 C1-63 DET 4 10.0 Sec	Ph 2 Call & TP3 T4-1 & 2 C1-47 DET 6 Queue 20 2.0 FRONT	Ph 3 Call & Ext T4-5 & 6 C1-58 DET 7 RED LOCK FRONT	Ph 4 Call & Ext T4-9 & 10 C1-41 DET 8 1.5	Ph 4 Call & Ext T6-1 & 2 C1-65 DET 10 10.0 Sec	Ph 4 Call & TP3 T6-5 & 6 C1-49 DET 12 Queue 20 2.0 FRONT	Ph 1 Call & Ext T6-9 & 10 C1-60 DET 13 RED LOCK 2nd & 3rd Loop	Ph 2/4 Ext T10-5 & 6 C11-23 DET 41	Ph 2 Call & Ext T8-1 C1-80 DET 29	Ph 2 PED CALL T8-4 C1-67	Ph 6 PED CALL T8-7 C1-68	FLASH SENSE T8-10 C1-81
LOWER	Ph 1 Call & Ext T2-3 & 4 C11-15 DET 33 RED LOCK	Ph 2 Call & Ext T2-7 & 8 C1-43 DET 3 0.0	Ph 2 Call & Ext T2-11 & 12 C1-76 DET 5 RED LOCK 2.0	Ph 2 Call & TP3 T4-3 & 4 C11-16 DET 34 Queue 20 2.0 BACK	Ph 3 Call & Ext T4-7 & 8 C11-17 DET 35 RED LOCK	Ph 4 Call & Ext T4-11 & 12 C1-45 DET 9 0.0	Ph 4 Call & Ext T6-3 & 4 C1-78 DET 11 RED LOCK 2.0	Ph 4 Call & TP3 T6-7 & 8 C11-18 DET 36 Queue 20 2.0 BACK	Ph 3 Call & Ext T6- 11 & 12 C1-62 DET 14 RED LOCK 2nd & 3rd Loop	Ph 2/4 Ext T10-7 & 8 C11-24 DET 42	Ph 4 Call & Ext T8-2 C1-53 DET 30	Ph 4 PED CALL T8-5 C1-69	Ph 8 PED CALL T8-8 C1-70	STOP TIME T8-11 C1-82
		SB FAR	SB BIKE	SB NEAR		WB FAR	WB BIKE	WB NEAR	EBLT			North Leg	South Leg	

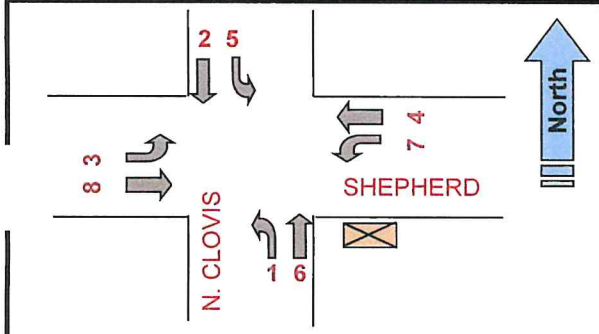
	SBLT	NB INT	NBRT	NB NEAR	WBLT	EB INT	EBRT	EB NEAR	SBLT			SB	WB	UPS
J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call & Ext T3-1 & 2 C1-55 DET 15 RED LOCK FRONT	Ph 6 Ext T3-5 & 6 C1-40 DET 16 1.2	Ph 6 Call & Ext T3-9 & 10 C1-64 DET 18 10.0 Sec	Ph 6 Call & TP3 T5-1 & 2 C1-48 DET 20 QUEUE 20 2.0 FRONT	Ph 7 Call & Ext T5-5 & 6 C1-57 DET 21 RED LOCK FRONT	Ph 8 Call & Ext T5- 9 & 10 C1-42 DET 22 1.4	Ph 8 Call & Ext T7-1 & 2 C1-66 DET 24 10.0 Sec	Ph 8 Call & TP3 T7- 5 & 6 C1-50 DET 26 QUEUE 20 2.0 #1 LANE	Ph 5 Call & Ext T7- 9 & 10 C1-59 DET 27 RED LOCK 2nd & 3rd Loop	Ph 6/8 Ext T10-9 & 10 C11-25 DET 43	Ph 6 Call & Ext T9-1 C1-54 DET 31	PH 2 & 5 EVA Preempt T9-4 C1 - 71	PH 4 & 7 EVB Preempt T9-5 C1 - 72	LOW BATT RAILROAD 1 T9-10 C1-51
LOWER	Ph 5 Call & Ext T3-3 & 4 C11-19 DET 37 RED LOCK	Ph 6 Call & Ext T3-7 & 8 C1-44 DET 17 0.7	Ph 6 Call & Ext T3-11 & 12 C1-77 DET 19 RED LOCK 2.0	Ph 6 Call & TP3 T5-3 & 4 C11-20 DET 38 QUEUE 20 2.0 BACK	Ph 7 Call & Ext T5-7 & 8 C11-21 DET 39 RED LOCK	Ph 8 Call & Ext T5-11 & 12 C1-46 DET 23 0.1	Ph 8 Call & TP3 T7- 3 & 4 C1-79 DET 25 QUEUE 20 2.0 BACK	Ph 8 Call & TP3 T7- 7 & 8 C11-22 DET 40 QUEUE 20 2.0 #2 LANE	Ph 7 Call & Ext T7-11 & 12 C1-61 DET 28 RED LOCK 2nd & 3rd Loop	Ph 6/8 Ext T10-11 & 12 C11-26 DET 44	Ph 8 Call & Ext T9-2 C1-75 DET 32	PH 6 & 1 EVC Preempt T9-7 C1 - 73	PH 8 EVD Preempt T9-8 C1 - 74	RAILROAD 2 T9-11 C1-52
		NB FAR	BIKE LANE	NB NEAR		EB FAR	EB NEAR	EB NEAR	WBLT			NB	EB	

COMMENTS:

DET #16 (NB INT) - Extend only due to northbound traffic exiting Serena Avenue crossing over the detection zone. "CALL" removed.
DET #19 (NB BIKE LANE) - Just added by CIP 18-08 Minnewawa Street Improvement Project.

222 Loop Amplifier
764 Discriminator
242 Isolator

Movement	NL	ST	EL	WT	SL	NT	WL	ET
Times [1.1.1]	1	2	3	4	5	6	7	8
Min Green	10	10	10	10	10	10	10	10
Gap, Ext	2	6.6	2	4.1	2	5.1	2	4.1
Max 1	30	40	30	40	30	40	30	40
Max 2	0		0					
Yel Clearance	3.6	4.7	3.6	5	3.6	4.7	3.6	5
Red Clearance	2	1	2	1	2	1	2	1
Walk	0	7	0	7		7		7
Ped Clearance	0	26	0	26		26		26
Red Revert	1	1	1	1	1	1	1	1
Add Initial	0		0					
Max Initial	0		0					
Time B4 Reduct	0	20	0	20		20		20
Cars B4 Reduct	0		0					
Time To Reduce	0	10	0	10		10		10
Reduce By	0		0					
Min Gap	2	4.6	2	2.6	2	3.5	2	2.6
DyMaxLim	36	46	36	46	36	46	36	46
Max Step	6	6	6	6	6	6	6	6
Options [1.1.2]	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		X				X		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		X		X		X		X
Enable Simul Gap	X	X	X	X	X	X	X	X
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
SkipRed-NoCall								
Red Rest								
Max II								
*Max III								
Max Inhibit								
Ped Delay								
Red Rest on Gap								
Conflicting Phase	0	0	0	0	0	0	0	0
Grn/Ped Delay								
Omit Yel, Yel P	0	0	0	0	0	0	0	0
Ped Out/Olp Ped								
StartYel, Next P	0	0	0	0	0	0	0	0
*StartupVehCall	1	2	3	4	5	6	7	8
*StartupPedCall								

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases			
1	1	RED	5	6	0	0
2	1	RED	5	6	0	0
3	1	RED	7	8	0	0
4	1	GREEN	7	8	0	0
5	2	RED	1	2	0	0
6	2	RED	1	2	0	0
7	2	RED	3	4	0	0
8	2	GREEN	3	4	0	0
9	0	RED	0	0	0	0
10	0	RED	0	0	0	0
11	0	RED	0	0	0	0
12	0	RED	0	0	0	0

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	OFF		
TS2CVM	NONE		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

Screen Size	8	Metric	OFF
Startup Flash	0	Red Revert	1
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	RSt	Display Time	30
Yellow < 3"	OFF	Tone Disable	ON
Allow Skip Yel	OFF	AudioPedTime	OFF
Start Red Tm	6	Phase Mode	STD8
*Startup Calls	UsePrg	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	USER
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	OFF
*InhFYA Red St	Off	*SecurityDelay	0

* - 76.12B or newer

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Comm [6.2]

Port	Baud Rate	FCM
1	9600	6
2	9600	6
3	1200	0
4	1200	0

Comm [6.5]

					Host IPs			
IP Address:	10	128	1	57	ATMS			
Mask:	255	255	255	0	172	26	17	230
Gateway:	10	128	1	254	SG			
Port #:	5057				0	0	0	0

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4	0	0
	2	6	5	7	8		0
5	1	1	2	3	4	0	0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3	0	0
	2	5	6	8	7		0
14	1	1	2	4	3		0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: CLOVIS @ SHEPHERD **ID:** C 0298 **Configuration:** Standard File

V76.15.9 (z)
ATMS 1.5.45.263

Prepared by:	Tim Burke	Date Installed / By:	6/10/2021
Checked by:		Date Superseded:	

Date Printed: 6/11/21

[2.1] Coord Modes+

Test OpMode	0
Correction	LONG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P1256_INH
Expand Splt	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: CLOVIS @ SHEPHERD

ID: C 0298

Date Printed: 6/8/2021

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
1	0	0	1	1
2	0	0	2	1
3	0	0	3	1
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7		0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8
1	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
2	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
4	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ret Hold	Flt	Veh	Ped	FRC MODE
1	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
2	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
3	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
4	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
5	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
6	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
7	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
8	10	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
9	10	17	0	0	0	0	0	0	BegGRN	-	-	-	-	
10	10	17	0	0	0	0	0	0	BegGRN	-	-	-	-	
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
31	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

1 A	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
2 B	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
3 C	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
4 D	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
5 E	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
6 F	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
7 G	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
8 H	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	EXT
Max Seek Track Time	0
Max Seek Dwell Time	0

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.Pre #.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	ON	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	EMERG	TS2	0	OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX

Preemption Times [3.#.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2	0	0	0	0	0	0	0	0
3			60		4	22		
4	0	0	60	0	4	22	0	0
5			60		4	22		
6	0	0	60	0	4	22	0	0

Preemption, Options [3.#.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt#	Flash Dwell	Link
1	ON	ON	OFF	ON	
2	OFF	ON	OFF	OFF	0
3	OFF	OFF	OFF	OFF	
4	OFF	OFF	OFF	OFF	0
5	OFF	OFF	OFF	OFF	
6	OFF	OFF	OFF	OFF	0

Preemption, Times+ [3.#.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2	0	0	0	0	0
3					
4	0	0	0	0	0
5					
6	0	0	0	0	0

Pre 1 = RR1
Pre 2 = RR2
Pre 3 = EVA
Pre 4 = EVB
Pre 5 = EVC
Pre 6 = EVD

Phases [3.#.2] - set the Dwell Phases

Pre #	Column	1	2	3	4	5	6	7	8	9	10
1	Dwell Veh										
	Peds										
2	Dwell Veh										
	Peds										
3	Dwell Veh	2	5								
	Peds										
4	Dwell Veh	4	7								
	Peds										
5	Dwell Veh	1	6								
	Peds										
6	Dwell Veh	3	8								
	Peds										

Phases [3.#.2] - Trk Veh

Pre #	Phases			
1				
2	0	0	0	0
3				
4	0	0	0	0
5				
6	0	0	0	0

Exit Phases [3.#.2]

No.	Exit Phase			
1	4	8		
2	0	0	0	0
3	2	6		
4	4	8	0	0
5	2	6		
6	4	8	0	0

Overlaps+ [3.#.5]

Pre #		Preempt Overlaps +
1	Track	
	Dwell	
2	Track	
	Dwell	
3	Track	
	Dwell	
4	Track	
	Dwell	
5	Track	
	Dwell	
6	Track	
	Dwell	

Low Priority Preempts [3.X; where X = 7 thru 10]

Pre #	Enb	C+P	Lock	NoSkip	Qjump	Times: Alt Tbl	Min	Max	Lock	Priorty Phases			
7	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
8	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
9	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
10	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0

Advance Times [3.x.8]

	1	2	3	4	5	6
YelChng	0	0	0	0	0	0
RedClr	0	0	0	0	0	0
TrkYelChng	0	0	0	0	0	0
TrkRedClr	0	0	0	0	0	0

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	OFF
Xtra Incl Phases	OFF
InhibitLockInterval	Always

PREEMPTION NOTE: Each preemption has it's own set of menus. To access each menu :

a. Press "3" for preemption

b. Then enter "Preempt number" (1 through 6 and shown as "#" in Schedules above)

c. Then enter "number of Menu item" you want to access (*1-Times, 2-Phases, 3-Options, Times+, 5-Overlaps+ or 6-Options+*)

d. Once in an above menu push Escape once to go back to main preempton menu.

Name: CLOVIS @ SHEPHERD

ID: C 0298 **Date Printed:** 6/8/2021

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz		X		X		X		X								
	Page 1								Page 2							

Chan Settings [1.8.2]

Channel	17	18	19	20	21	22	23	24
Phase / Olap #	1	3	5	7				
Channel Type	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Channel Flash	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	USER

CHANNELS+ [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	USER
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

I/O LOGIC [1.8.7]

Row#	Result		Function			OP	Function			OP	Function			OP	Timer	
	I/O	Fcn	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Dly	Sec
1	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
2	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
3	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
4	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
5	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
6	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
7	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
8	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
9	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
10	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	5	0
3	0	0	0	0
4	4	0	5	0
5	0	0	0	0
6	6	0	5	0
7	0	0	0	0
8	8	0	5	0

Page 4

Date Printed: 6/8/2021

ID: C 0298

AGENDA ITEM NO. 3.

Veh Par 1-32 [5.1]

Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1I1U	1					0	0	0	2
2	2I2U	2	0	0	3.6	0	0	0	0	2
3	2I2L	2	0	0	2	0	0	0	0	2
4	2I3U	2	0	0	2	21	0	0	0	2
5	2I3L	2	0	10	0	0	0	0	0	2
6	2I4U	2	0	0	2	21	0	0	0	2
7	3I5U	3					0	0	0	2
8	4I6U	4	0	0	1.4	0	0	0	0	2
9	4I6L	4	0	0	1.1	0	0	0	0	2
10	4I7U	4	0	0	2	21	0	0	0	2
11	4I7L	4			5.6		0	0	0	2
12	4I8U	4			2	21	0	0	0	2
13	1I9U	1					0	0	0	2
14	3I9L	3					0	0	0	2
15	5J1U	5					0	0	0	2
16	6J2U	6			1.6		0	0	0	2
17	6J2L	6					0	0	0	2
18	6J3U	6			2	21	0	0	0	2
19	6J3L	6		10			0	0	0	2
20	6J4U	6			2	21	0	0	0	2
21	7J5U	7					0	0	0	2
22	8J6U	8	0	0	1.4	0	0	0	0	2
23	8J6L	8	0	0	1.1	0	0	0	0	2
24	8J7U	8	0	0	2	21	0	0	0	2
25	8J7L	8	0	10	0	0	0	0	0	2
26	8J8U	8	0	0	2	21	0	0	0	2
27	5J9U	5					0	0	0	2
28	7J9L	7					0	0	0	2
29	2I11U	0	0	0	0	0	0	0	0	0
30	4I11L	0	0	0	0	0	0	0	0	0
31	6J11U						0	0	0	0
32	8J11L						0	0	0	0
33	1I1L						0	0	0	0
34	2I4L						0	0	0	0
35	3I5L						0	0	0	0
36	4I8L					0	0	0	0	0
37	5J1L						0	0	0	0
38	6J4L					0	0	0	0	0
39	7J5L						0	0	0	0
40	8J8L					0	0	0	0	0
41	4I10U					0	0	0	0	0
42	4I10L					0	0	0	0	0
43	8J10U					0	0	0	0	0
44	8J10L						0	0	0	0

Vehicle Options 1-32 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	X	X	-	-	X	-	-	X
2	X	X	-	-	X	-	-	X
3	X	X	-	-	-	-	X	-
4	X	-	X	-	-	-	-	-
5	X	X	-	-	-	-	-	X
6	X	-	X	-	-	-	-	X
7	X	X	-	-	X	-	-	X
8	X	X	-	-	-	-	-	-
9	X	X	-	-	-	-	X	-
10	X	-	X	-	-	-	-	-
11	X	X	-	-	X	-	-	X
12	X	-	X	-	-	-	-	X
13	X	X	-	-	X	-	-	-
14	X	X	-	-	X	-	-	-
15	X	X	-	-	X	-	-	X
16	X	X	-	-	-	-	-	-
17	X	X	-	-	-	-	X	-
18	X	-	X	-	-	-	-	-
19	X	X	-	-	-	-	-	X
20	X	-	X	-	-	-	-	X
21	X	X	-	-	X	-	-	X
22	X	X	-	-	-	-	-	-
23	X	X	-	-	-	-	X	-
24	X	-	X	-	-	-	-	-
25	X	X	-	-	-	-	-	X
26	X	-	X	-	-	-	-	X
27	X	X	-	-	X	-	-	-
28	X	X	-	-	X	-	-	-
29	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-

Parameters+ 1-32 [5.3]

Det #	Occupancy G	Occupancy Y	Occupancy R	Delay 1	Delay 2	Type	Src
1	X	X	-			NORM	
2	X	X	-	0	0	NORM	0
3	X	X	-	0	0	NORM	0
4	X	X	-	0	0	NORM	0
5	X	X	-	0	0	NORM	0
6	X	X	-	0	0	NORM	0
7	X	X	-			NORM	
8	X	X	-	0	0	NORM	0
9	X	X	-	0	0	NORM	0
10	X	X	-	0	0	NORM	0
11	X	X	-			NORM	
12	X	X	-			NORM	
13	X	X	-			NORM	
14	X	X	-			NORM	
15	X	X	-			NORM	
16	X	X	-			NORM	
17	X	X	-			NORM	
18	X	X	-			NORM	
19	X	X	-			NORM	
20	X	X	-			NORM	
21	X	X	-			NORM	
22	X	X	-	0	0	NORM	0
23	X	X	-	0	0	NORM	0
24	X	X	-	0	0	NORM	0
25	X	X	-	0	0	NORM	0
26	X	X	-	0	0	NORM	0
27	X	X	-			NORM	
28	X	X	-			NORM	
29	-	-	-	0	0	NORM	0
30	-	-	-	0	0	NORM	0
31	-	-	-			NORM	
32	-	-	-			NORM	
33	-	-	-			NORM	
34	-	-	-			NORM	
35	-	-	-			NORM	
36	-	-	-			NORM	
37	-	-	-			NORM	
38	-	-	-			NORM	
39	-	-	-			NORM	
40	-	-	-			NORM	
41	-	-	-			NORM	
42	-	-	-			NORM	
43	-	-	-			NORM	
44	-	-	-			NORM	

Det #	Dir	Type	#
1	NBLT1&2	Loop	1
2	SB BIKE	Loop	2
3	SB FAR	Loop	3
4	SB NEAR	Loop	4
5	SBRT	Loop	5
6	SB CT1&2	Loop	6
7	EBLT1&2	Loop	7
8	WB INT	Loop	8
9	WB FAR	Loop	9
10	WB NEAR	Mag	10
11	WB BIKE	Mag	11
12	WB CT1&2	Loop	12
13	NBLT BACK	Loop	
14	EBLT BACK	Loop	14
15	SBLT1&2	Loop	15
16	NB INT	Loop	16
17	NB FAR	Loop	17
18	NB NEAR	Loop	18
19	NBRT	Loop	19
20	NB CT1&2	Loop	20
21	WBLT1&2	Loop	21
22	EB INT	Loop	22
23	EB FAR	Loop	23
24	EB NEAR	Loop	24
25	EBRT	Loop	25
26	EB CT1&2	Loop	26
27	SBLT BACK	Loop	27
28	WBLT BACK	Loop	28
29			29
30			
31			
32			32
33			33
34			34
35			35
36			36
37			37
38			38
39			39
40			40
41			41
42			42
43			43
44			44

ID: C 0298 **Name:** CLOVIS @ SHEPHERD

Vol/Occ Period 0 Seconds / 5 Minutes

6/8/2021

1660

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Min Grn		0		0		0		0
Gap, Ext		0		0		0		0
Max 1		0		0		0		0
Max 2		0		0		0		0
Yel Clr		0		0		0		0
Red Clr		0		0		0		0
Walk		0		0		0		0
Ped Clr		0		0		0		0

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Min Grn		0		0		0		0
Gap, Ext		0		0		0		0
Max 1		0		0		0		0
Max 2		0		0		0		0
Yel Clr		0		0		0		0
Red Clr		0		0		0		0
Walk		0		0		0		0
Ped Clr		0		0		0		0

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Min Grn		0		0		0		0
Gap, Ext		0		0		0		0
Max 1		0		0		0		0
Max 2		0		0		0		0
Yel Clr		0		0		0		0
Red Clr		0		0		0		0
Walk		0		0		0		0
Ped Clr		0		0		0		0

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	X	X	X	X	X	X	X	X
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8										
1	0			0	0								0	Off	DFT
2													0	Off	DFT
3	0	0	0	0									0	Off	DFT
4	4												0	Off	DFT
5	0	0	0	0									0	Off	DFT
6													0	Off	DFT
7	0	0	0	0									0	Off	DFT
8													0	Off	DFT
9	0	0	0	0									0	Off	DFT
10													0	Off	DFT
11	0	0	0	0									0	Off	DFT
12													0	Off	DFT
13	0	0	0	0									0	Off	DFT
14													0	Off	DFT
15	0	0	0	0									0	Off	DFT
16													0	Off	DFT
17	0	0	0	0									0	Off	DFT
18													0	Off	DFT
19	0	0	0	0									0	Off	DFT
20													0	Off	DFT
21	0	0	0	0									0	Off	DFT
22													0	Off	DFT
23	0	0	0	0									0	Off	DFT
24													0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	ENABLE	
Time Base Sync Ref	0	
GMT Offset	+	0
Daylight Savings	**Mon**	**Week**
Spring	3	2
Fall	11	1

NAME: CLOVIS @ SHEPHERD

6/8/2021 **ID:** C 0298

Annual Schedule [4.3]

| | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Plan | To |
|---|---|---

#	Alarm	Ev	Alr
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	X	X
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	-	-
17	Cycle Fault	X	X
18	Cycle Failure	X	X
19	Coordination Fault	X	X
20	Controller Fault	X	X
21	Detector SDLC Fault	-	-
22	MMU SDLC Fault	-	-
23	Critical SDLC Fault	-	-
24	SDLC Res. Frame Fault	-	-
25	EEPROM CRC Fault	X	X
26	Detector Diagnostic Fault	-	-
27	Detector Fault from SDLC	-	-
28	Queue detector alarm	-	-
29	Ped Fault	-	-
30	Coord Diagnostic Fault	X	X
37	Download Request	X	X
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	-	-
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	-	-
60	Coordination Failure	X	X
73	Controller Access	X	X
81	FIO Changed Status	X	X

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alarm Parameters [1.6.7.1]

Pattern Events:	ON
Local Txmt Alarms:	OFF
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Preempt Events:	ON

Date Printed
6/8/2021

ID: C 0298 **Name:** CLOVIS @ SHEPHERD

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	189	Unused
54	I2-8	189	Unused
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	189	Unused
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	178	Int Advance
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPU - 1.8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Function	Output Name
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5

C-11 OUTPUTS

1	O8-1	115	Not Used
2	O8-2	115	Not Used
3	O8-3	115	Not Used
4	O8-4	115	Not Used

I/O Inputs - 1.8.9.1.5

C-11 INPUTS

15	I7-1	192	Alarm 1
16	I7-2	193	Alarm 2
17	I7-3	194	Alarm 3
18	I7-4	195	Alarm 4
19	I7-5	196	Alarm 5
20	I7-6	197	Alarm 6
21	I7-7	189	Unused
22	I7-8	189	Unused
23	I8-1	189	Unused
24	I8-2	189	Unused
25	I8-3	189	Unused
26	I8-4	189	Unused
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

ID: C 0298

NAME: CLOVIS @ SHEPHERD

Date Printed: 6/8/2021

ID NUMBER: C 0298

LOCATION: CLOVIS and SHEPHERD

T.Barker
6/6/2021

CITY OF CLOVIS
332 CABINET
28 DETECTOR SETUP

DETECTOR ASSIGNMENTS

												ISOLATORS		
	NBLT-1-CT	SB BIKE	SB NEAR	SB-1-CT	EBLT-1-CT	WB INT	WB NEAR	WB-1-CT	NBLT			SOUTH LEG	NORTH LEG	
I	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call & Ext T2-1 & 2 C1-56 DET 1 TYPE "D" Front Loop	Ph 2 Call & Ext T2-5 & 6 C1-39 DET 2 3.6 MINI "E" Front Loop	Ph 2 Call & QUE T2-9 & 10 C1-63 DET 4 2.0 TYPE "E" Back Loops	Ph 2 Call & QUE T4-1 & 2 C1-47 DET 6 2.0 LANE #1 FRONT	Ph 3 Call & Ext T4-5 & 6 C1-58 DET 7 TYPE "D" Front Loop	Ph 4 Call & Ext T4-9 & 10 C1-41 DET 8 1.4 TYPE "E"	Ph 4 Call & QUE T6-1 & 2 C1-65 DET 10 2.0 TYPE "E" Back Loops	Ph 4 Call & QUE T6-5 & 6 C1-49 DET 12 2.0 LANE #1 FRONT	Ph 1 Call & Ext T6-9 & 10 C1-60 DET 13 TYPE "E" "B" & "C" Back Loops	NOT WIRED	NOT ASSIGNED C1-80	Ph 2 PED CALL C1-67	Ph 6 PED CALL C1-68	FLASH SENSE C1-81
LOWER	Ph 1 Call & Ext T2-3 & 4 C1-56 DET 1 TYPE "D" Front Loop	Ph 2 Call & Ext T2-7 & 8 C1-43 DET 3 2.0 TYPE "E"	Ph 2 Call & Ext T2-11 & 12 C1-76 DET 5 10 DEL TYPE "D" Front Loop	Ph 2 Call & QUE T4-3 & 4 C1-47 DET 6 2.0 LANE #2 FRONT	Ph 3 Call & Ext T4-7 & 8 C1-58 DET 7 TYPE "D" Front Loop	Ph 4 Call & Ext T4-11 & 12 C1-45 DET 9 1.1 TYPE "E"	Ph 4 Call & Ext T6-3 & 4 C1-78 DET 11 5.6 MINI "E" Front Loop	Ph 4 Call & QUE T6-7 & 8 C1-49 DET 12 2.0 LANE #2 FRONT	Ph 3 Call & Ext T6- 11 & 12 C1-62 DET 14 TYPE "E" "B" & "C" Back Loops	NOT WIRED	NOT ASSIGNED C1-53	Ph 4 PED CALL C1-69	Ph 8 PED CALL C1-70	STO TIME C1-82
	NBLT-2-CT	SB FAR	SBRT	SB-2-CT	EBLT-2-CT	WB FAR	WB BIKE	WB-2-CT	EBLT			WEST LEG	EAST LEG	

	SBLT-1-CT	NB INT	NB NEAR	NB-1-CT	WBLT-1-CT	EB INT	EB NEAR	EB-1-CT	SBLT			EB	SB	UPS
J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call & Ext T3-1 & 2 C1-55 DET 15 TYPE "D" Front Loop	Ph 6 Call & Ext T3-5 & 6 C1-40 DET 16 1.6 TYPE "E"	Ph 6 Call & QUE T3-9 & 10 C1-64 DET 18 2.0 TYPE "E" Back Loops	Ph 6 Call & QUE T5-1 & 2 C1-48 DET 20 2.0 LANE #1 FRONT	Ph 7 Call & Ext T5-5 & 6 C1-57 DET 21 TYPE "D" Front Loop	Ph 8 Call & Ext T5- 9 & 10 C1-42 DET 22 1.4 TYPE "E"	Ph 8 Call & QUE T7-1 & 2 C1-66 DET 24 2.0 TYPE "E" Back Loops	Ph 8 Call & QUE T7- 5 & 6 C1-50 DET 26 2.0 LANE #1 FRONT	Ph 5 Call & Ext T7- 9 & 10 C1-59 DET 27 TYPE "E" "B" & "C" Back Loops	NOT WIRED	NOT ASSIGNED C1-54	PH 2 & 5 EVA Preempt C1 - 71	PH 4 & 7 EVB Preempt C1 - 72	RAILROAD 1 C1-51
LOWER	Ph 5 Call & Ext T3-3 & 4 C1-55 DET 15 TYPE "D" Front Loop	Ph 6 Call & Ext T3-7 & 8 C1-44 DET 17 TYPE "E"	Ph 6 Call & Ext T3-11 & 12 C1-77 DET 19 10 DEL TYPE "E" BOTH Loops	Ph 6 Call & QUE T5-3 & 4 C1-48 DET 20 2.0 LANE #2 FRONT	Ph 7 Call & Ext T5-7 & 8 C1-57 DET 21 TYPE "D" Front Loop	Ph 8 Call & Ext T5-11 & 12 C1-46 DET 23 1.1 TYPE "E"	Ph 8 Call & Ext T7- 3 & 4 C1-79 DET 25 10 DEL TYPE "E" BOTH Loops	Ph 8 Call & QUE T7- 7 & 8 C1-50 DET 26 2.0 LANE #2 FRONT	Ph 7 Call & Ext T7-11 & 12 C1-61 DET 28 TYPE "E" "B" & "C" Back Loops	NOT WIRED	NOT ASSIGNED C1-75	PH 6 & 1 EVC Preempt C1 - 73	PH 8 & 3 EVD Preempt C1 - 74	RAILROAD 2 C1-5
	SBLT-2-CT	NB FAR	NBRT	NB-2-CT	WBLT-2-CT	EB FAR	EBRT	EB-2-CT	WBLT			WB	NB	

COMMENTS:

There is a DLC for WB Right-turn lane detection. However, there are no more slots to land this DLC in the 332A Cabinet. Label DLC and Place in bottom of Cabinet. Future use at 4I7L which is currently used for the Bike Lane Detection.

222 Loop Amplifier
752 Discriminators
242 Isolator
232 Mag Amplifier

Detector Layout for the Intersection of: CLOVIS and SHEPHERD
DATE: Tuesday, November 24, 2020
BY: T. Barker

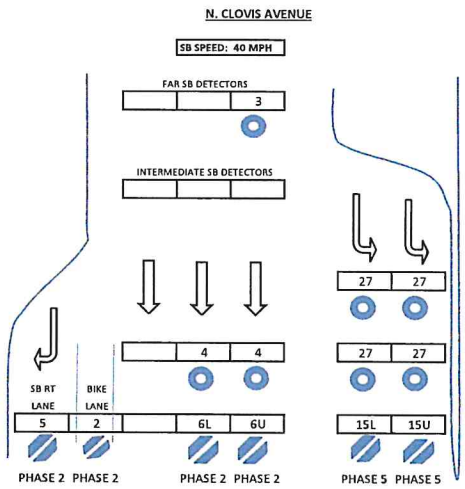
NOTES:
[X] DETECTOR NUMBER

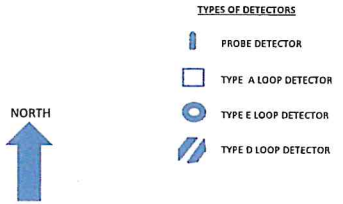
"I" - INPUT PANEL

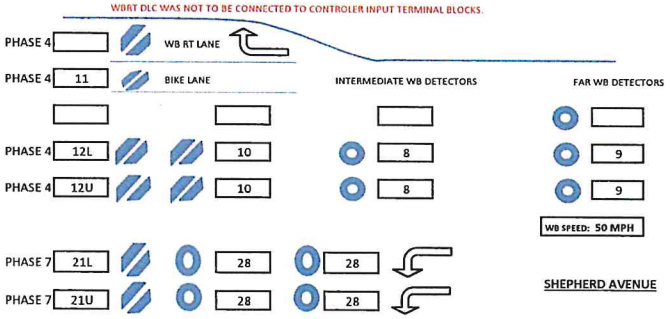
Det No.	Location
1	NBLT Near Front Loop
33	(NOT USED)
2	SB BIKE LOOP
3	SB FAR LOOP
4	SB NEAR BACK LOOPS
5	SB RIGHT-TURN LOOP
6	SB NEAR FRONT LOOPS
34	(NOT USED)
7	EBLT Near Front Loop
35	(NOT USED)
8	WB INTERMEDIATE LOOPS
9	WB FAR LOOPS
10	WB Near Back Loops
11	WB BIKE LOOP
12	WB NEAR FRONT LOOPS
36	(NOT USED)
13	NBLT BACK LOOPS
14	EBLT BACK LOOPS
41	NA
42	NA
29	NA
30	NA

"J" - INPUT PANEL

Det No.	Location
15	SBLT Near Front Loop
37	(NOT USED)
16	NB INTERMEDIATE LOOPS
17	NB FAR LOOPS
18	NB NEAR BACK LOOPS
19	NB RIGHT-TURN LOOP
20	NB NEAR FRONT LOOPS
38	(NOT USED)
21	WBLT Near Front Loop
39	(NOT USED)
22	EB INTERMEDIATE LOOPS
23	EB FAR LOOPS
24	EB Near Back Loops
25	EB RIGHT-TURN LOOP
26	EB NEAR FRONT LOOPS
40	(NOT USED)
27	SBLT BACK LOOPS
28	WBLT BACK LOOPS
43	NA
44	NA
31	NA
32	NA

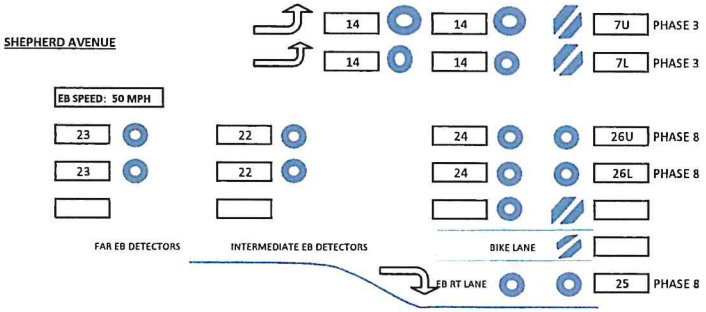


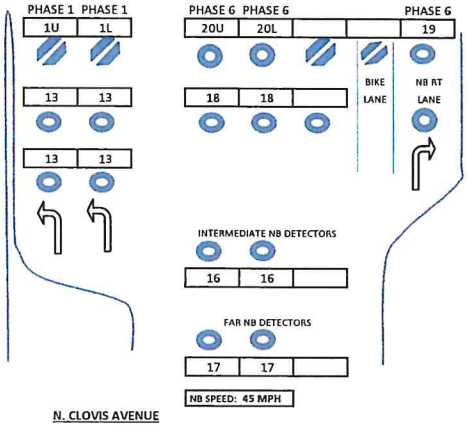




INTERSECTION MAINTENANCE NUMBER: C 0298

COORDINATES:
Latitude: 36.866602
Longitude: -119.702107





NAVIGATOR APS DEFAULT AND FIELD SETTINGS

CITY: Clovis
STATE: California

INTERSECTION: CLOVIS & SHEPHERD
INSTALL DATE: Friday, February 19, 2021

CODE: AAAB

	NAME OF STREET: CROSSING OCCURS		Shepherd	Shepherd	Clovis	Clovis	Shepherd	Shepherd	Clovis	Clovis
	CORNER:		SWC	NWC	NWC	NEC	NEC	SEC	SEC	SWC
	PPB HEIGHT:		39"	39"	39"	39"	39"	39"	39"	39"
	POLE TYPE:		1A Pole	29-5-129	1A Pole	29-5-129	1A Pole	29-5-129	1A Pole	29-5-129
	ID:		A1	A2	B1	B2	C1	C2	D1	D2
	PHASE:		2	2	4	4	6	6	8	8
	DEFAULTS: (Effective with Configurator v1.12, Nav2 v1.17 and Nav4 v1.15)									
LOCATOR TONE MINIMUM VOLUME	LOCATE VOL MIN	0%	30%	30%	30%	30%	30%	30%	30%	30%
LOCATOR TONE MAXIMUM VOLUME	LOCATE VOL MAX	50%	50%	50%	50%	50%	50%	50%	50%	50%
PUSH CONFIRM VOLUME MINIMUM		65%	65%	65%	65%	65%	65%	65%	65%	65%
PUSH CONFIRM VOLUME MAXIMUM		100%	100%	100%	100%	100%	100%	100%	100%	100%
INFORMATION MESSAGE VOLUME MINIMUM	INFO MSG VOL MIN	65%	60%	60%	60%	60%	60%	60%	60%	60%
INFORMATION MESSAGE VOLUME MAXIMUM	INFO MSG VOL MIN	100%	100%	100%	100%	100%	100%	100%	100%	100%
STANDARD PUSH WALK VOLUME MINIMUM	STD WALK VOL MIN	40%	40%	40%	40%	40%	40%	40%	40%	40%
STANDARD PUSH WALK VOLUME MAXIMUM	STD WALK VOL MAX	70%	75%	75%	75%	75%	75%	75%	75%	75%
EXTEND PUSH WALK VOLUME MINIMUM	EXT WALK VOL MIN	60%	60%	60%	60%	60%	60%	60%	60%	60%
EXTEND PUSH WALK VOLUME MAXIMUM	EXT WALK VOL MAX	60%	80%	80%	80%	80%	80%	80%	60%	60%
VOLUME OVER AMBIENT	VOL OVER AMBIENT	0 dB	+5 dB	+5 dB	+5 dB	+5 dB	+5 dB	+5 dB	+5 dB	+5 dB
LOCATION VOLUME OVER AMBIENT	VOL OVER AMBIENT	0%	+2.5 dB	+2.5 dB	+2.5 dB	+2.5 dB	+2.5 dB	+2.5 dB	+2.5 dB	+2.5 dB
WALK MODE SOUND	WALK MODE SOUND	STD MSG	CUST MSG	CUST MSG	CUST MSG	CUST MSG	CUST MSG	CUST MSG	CUST MSG	CUST MSG
WALK SOUND PAUSE	WALK SOUND PAUSE	0.5 Sec	0.5 Sec	0.5 Sec	0.5 Sec	0.5 Sec	0.5 Sec	0.5 Sec	0.5 Sec	0.5 Sec
WALK SOUND TRIGGER	WALK SOUND TRIG	ANY PUSH	Any Push	Any Push	Any Push	Any Push	Any Push	Any Push	Any Push	Any Push
MAXIMUM WALK TIME	MAX WALK TIME	55 sec	55 sec	55 sec	55 sec	55 sec	55 sec	55 sec	55 sec	55 sec
SOUND / VIBRATION TIMER	SOUND / VIB TIMER	20 sec	FULL WALK	FULL WALK	FULL WALK	FULL WALK	FULL WALK	FULL WALK	FULL WALK	FULL WALK
SOUND / VIBRATION RETRIGGER	SOUND / VIB RETRIG	NEW WALK	Button Push	Button Push	Button Push	Button Push	Button Push	Button Push	Button Push	Button Push
CANCEL ON CLEARANCE	CANCEL ON CLEARANC	YES	YES	YES	YES	YES	YES	YES	YES	YES
CLEAR MODE SOUND	CLEAR MODE SOUND	TONE 1	TONE 2	TONE 2	TONE 2	TONE 2	TONE 2	TONE 2	TONE 2	TONE 2
CLEAR TONE PAUSE	CLEAR TONE PAUSE	1.0 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC
LOCATION SOUND	LOCATE SOUND	TONE 1	TONE 1	TONE 1	TONE 1	TONE 1	TONE 1	TONE 1	TONE 1	TONE 1
LOCATE TONE TIME	LOCATE TONE TIME	1.0 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC	1 SEC
WAIT MESSAGE	WAIT MSG	OFF	Any Push 8	Any Push 8	Any Push 8	Any Push 8	Any Push 8	Any Push 8	Any Push 8	Any Push 8
DIRECTION MESSAGE	DIRECTION MSG	NORTH	WEST	WEST	WEST	WEST	WEST	WEST	WEST	WEST
INFORMATION MESSAGE	INFO MSG	TICK	CUST w/ PULSE	CUST w/ PULSE	CUST w/ PULSE	CUST w/ PULSE	CUST w/ PULSE	CUST w/ PULSE	CUST w/ PULSE	CUST w/ PULSE
PUSH CONFIRM MESSAGE	INFO MSG	WAIT	WAIT	WAIT	WAIT	WAIT	WAIT	WAIT	WAIT	WAIT
BUTTON PUSH FORCE	BUT PUSH FORCE	MEDIMUM	MEDIMUM	MEDIMUM	MEDIMUM	MEDIMUM	MEDIMUM	MEDIMUM	MEDIMUM	MEDIMUM
CANCEL ON WALK	CANCEL ON WALK	YES	YES	YES	YES	YES	YES	YES	YES	YES
EXTEND PUSH TIME	EXT PUSH TIME	1.0 SEC	1.0 SEC	1.0 SEC	1.0 SEC	1.0 SEC	1.0 SEC	1.0 SEC	1.0 SEC	1.0 SEC
SECOND LANGUAGE	SECOND LANGUAGE	NO	NO	NO	NO	NO	NO	NO	NO	NO
EXTENDED PUSH PRIORITY	EXT PUSH PRIORITY	NO	NO	NO	NO	NO	NO	NO	NO	NO
PING PONG	WALK ENABLE	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	CLEARANCE ENABLE	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	ON FOR EXTENDED PUSH	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
	PLAYS FIRST	FILLED IN	FILLED IN	FILLED IN	FILLED IN	FILLED IN	FILLED IN	FILLED IN	FILLED IN	FILLED IN
	PLAYS SECOND	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
DOUBLE WALK	DOUBLE WALK	NO	NO	NO	NO	NO	NO	NO	NO	NO
LIMIT PUSH RECALL	LIMIT PUSH RECALL	NO	NO	NO	NO	NO	NO	NO	NO	NO

SPECIAL NOTES: The Polara iN2 had rough settings programmed and activated on 2/17/2021. VOL settings were installed on 2/18/2021. Fine tune settings on 2/19/2021.

N. CLOVIS & TEAGUE
INTERSECTION

Bi Tran Systems
Version 2.7
Ck Sum 3ABF26
QUIKLOAD NO. 269 DATE: 08/25/05

FILE COPY

AGENDA ITEM NO. 3.

0303
INTERSECTION NO.

PHASE

		NB LT	SB	—	WB	—	NB	—	EB
		1	2	3	4	5	6	7	8
0	WALK	—	5	—	5	—	—	—	5
1	DON'T WALK	—	17	—	20	—	—	—	20
2	MIN INITIAL	3	8	—	—	—	8	—	8
3	TYPE 3 LIMIT	—	18.	—	—	—	18	—	—
4	ADD PER VEH	—	—	—	—	—	—	—	—
5	VEH EXT	2	3.7	—	—	—	3.6	—	2
6	MAX GAP	2	4.6	—	—	—	4.5	—	2
7	MIN GAP	2	2.4	—	—	—	2.3	—	2
8	MAX LIMIT	22	32	—	—	—	32	—	27
9	MAXIMUM 2	—	—	—	—	—	—	—	—
A	ADV/DLY WALK	—	—	—	—	—	—	—	—
B	MIN PED CLEAR	—	14	—	15	—	—	—	15
C	COND SRV MIN	—	—	—	—	—	—	—	—
D	REDUCE EVERY	—	1.0	—	—	—	1.0	—	—
E	YELLOW	3.0	4.3	—	3.9	—	4.3	—	3.9
F	RED CLEAR	1.0	1.0	—	1.0	—	1.0	—	1.0

PHASE BANK # 1 <C + 0 + F = 1>

		9	A	B	C	D
0						
1	PHASE 1					
2	PHASE 2					
3	PHASE 3					
4	PHASE 4					
5	PHASE 5					
6	PHASE 6					
7	PHASE 7					
8	PHASE 8					

MAX INITIAL - ALT WALK - ALT FLH D/W - ALT INITIAL - ALT EXTEN -

FLASH START: (F/1 + 0 + E) = 0
ALL RED START: (F/1 + C + 0) = 0
RED REVERT: (F/1 + 0 + F) = 1.0

		E
RR1 DLY		—
RR1 CLR		—
EVA DLY		—
EVA CLR		1.0
EVB DLY		—
EVB CLR		—
EVC DLY		—
EVC CLR		1.0
EVD DLY		—
EVD CLR		1.0
RR2 DLY		—
RR2 CLR		—
EV CLR		
EV DLY		
RR CLR		
RR DLY		

Column F

		PHASES 1 2 3 4 5 6 7 8
0	PERMIT	X X X X X
1	RED LOCK	X
2	YELLOW LOCK	X X
3	VEH MIN CALL	
4	PED RECALL	
5	PEDESTRIANS	X X X X
6	REST IN WALK	
7	RED REST	X X X X X
8	DOUBLE ENTRY	
9	VEH MAX CALL	
A	SOFT RECALL	
B	MAXIMUM 2	
C	COND SERVICE	
D	MAN CONT CALL	
E	YELLOW START	X
F	FIRST PHASES	X X

<C + 0 + F = 1>

REMOVED:

FLASH TO PE & PE NON-LOCK

1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

EXTRA 1
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Daylight Savings
4 = EV Advance
5 = Expanded Status Reporting
6 = International Ped
7 = Clear Outputs During FLASH
8 = Split Ring

EXTRA 2
1 = AWB On During Phase Initial
2 = LMU Installed
3 = Disable Min Walk
4 = QuicNet/4 System
5 = Ignore P/P on EV
6 =
7 = Reserved
8 =

IC SELECT
2 = 2 Way Modem
3 = 7 Wire Slave
4 = Flash / Free
6 = Simplex Master
7 = 7 Wire Master
8 = Offset Interrupter

Column E

		PHASES / BITS 1 2 3 4 5 6 7 8
0	EXCLUSIVE	
1	RR 1 CLEAR	
2	RR 2 CLEAR	
3	RR 2 LTD SRV	
4	PROT / PERM	
5	FLASH TO PE	
6	FLASH ENTRY	
7	DSABL MIN YEL	
8	DSABL OVP YEL	
9	OVP FLH YEL	
A	EM VEH A	X
B	EM VEH B	
C	EM VEH C	X X
D	EM VEH D	X
E	EXTRA 1	X X X
F	IC SELECT	X

<C + 0 + E = 125>

		PHASES / BITS 1 2 3 4 5 6 7 8
0		
1	EXT PERMIT 1	
2	EXT PERMIT 2	
3	EXCLU PED	
4	PE NON-LOCK	
5	PED 2 P OUT	X
6	PED 6 P OUT	
7	PED 4 P OUT	X
8	PED 8 P OUT	X
9	FLH YELLOW	
A	LOW PRI. A	
B	LOW PRI. B	
C	LOW PRI. C	
D	LOW PRI. D	
E	RESTRICTED	
F	EXTRA 2	

PLAN NUMBER

		1	2	3	4	5	6	7	8	9
0	CYCLE LENGTH									
1	FORCE OFF 1									
2	FORCE OFF 2									
3	FORCE OFF 3									
4	FORCE OFF 4									
5	FORCE OFF 5									
6	FORCE OFF 6									
7	FORCE OFF 7									
8	FORCE OFF 8									
9	RING OFFSET									
A	OFFSET A									
B	OFFSET B									
C	OFFSET C									
D	END PERM 1									
E	HOLD RELEASE									
F	ZONE OFFSET									

COORDINATION <C + 0 + C = 1>

Column E

		1 2 3 4 5 6 7 8
0		
1	SYNC 1	
2	SYNC 2	
3	SYNC 3	
4	SYNC 4	
5	SYNC 5	
6	SYNC 6	
7	SYNC 7	
8	SYNC 8	
9	SYNC 9	
A	NEMA SYNC	
B	NEMA HOLD	
C		
D		
E	COOR XTRA	
F		

<C + 0 + C = 1>

Column F

		1 2 3 4 5 6 7 8
0	LAG FREE	X X X X
1	LAG PLAN 1	
2	LAG PLAN 2	
3	LAG PLAN 3	
4	LAG PLAN 4	
5	LAG PLAN 5	
6	LAG PLAN 6	
7	LAG PLAN 7	
8	LAG PLAN 8	
9	LAG PLAN 9	
A	EXT. LAG	
B		
C		
D		

COOR XTRA
1 = Programmed Walk Time For Sync Phase Peds
2 = Always Terminate Sync Phase Peds

Column 2 COORD MINIMUM

1	
2	
3	
4	
5	
6	
7	
8	

<C + 0 + C = 5>

MANUAL PLAN SELECT: (C/0 + A + 1) = 14
AUTO = 0 FREE = 14 = E
PLAN = 1 thru 9 FLASH = 15 = F

COMM ADDRESS: (C/0 + 0 + 0) = 1
ZONE NUMBER: (C/0 + 0 + 1) = 1
AREA NUMBER: (C/0 + 0 + 2) = 1
AREA ADDRESS: (C/0 + 0 + 3) = 1

TRANSITION TYPE: (C/5 + 1 + 9) = 0.3

LAG HOLD PHASES: (C/5 + 1 + A) = 1 2 3 4 5 6 7 8

TRANSITION TYPE
0.X = Shortway
1.X = Only Lengthen
X.1 thru X.4 = Number of cycles when Lengthing

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
(916) 441-0260

Traffic Signal Program 233 RV2
Timing Sheet 1 (of 7)
(Revised 05/98)

	Column 9	Column A	Column B	Column C	Column D	Column E	Column F
0		NOT 3	MAX 2	PRE TIM	WK DAY	DIAL 2	SIM TRM
1		NOT 4	SY DET 1	PLAN 1	X PERM 1	DIAL 3	EV A 71
2	SP FUN 1	OR 4	SY DET 2	PLAN 2	X PERM 2	OFF 1	EV B 72
3	SP FUN 2	OR 4	SY DET 3	PLAN 3	DIM	OFF 2	EV C 73
4	NAND 3	OR 5	SY DET 4	PLAN 4	X CLOCK	OFF 3	EV D 74
5	NAND 3	OR 5	SY DET 5	PLAN 5	ST TIME 82	FREE	RR 1 51
6	NAND 4	OR 6	SY DET 6	PLAN 6	FL SENS 81	FLASH	RR 2 52
7	NAND 4	OR 6	SY DET 7	PLAN 7	ENABLE	XPD OMT	SP EV 1
8	OR 7	FIG 3	SY DET 8	PLAN 8	ADVANC	NOT 1	SP EV 2
9	OR 7	FIG 4	MX INIBT	PLAN 9	ALARM	NOT 2	X LAG
A	OR 7	AND 4	FORCE A	DELAY A	PH BNK 2 200	OR 1	AND 1
B	OR 7	AND 4	FORCE B	DELAY B	PH BNK 3	OR 1	AND 1
C	OR 8	NAND 1	CNA	DELAY C	OL SET 2	OR 2	AND 2
D	OR 8	NAND 1	HOLD	DELAY D	OL SET 3	OR 2	AND 2
E	OR 8	NAND 2	VE CALL	DELAY E	DET ST 2	OR 3	AND 3
F	OR 8	NAND 2	RECALL	DELAY F	DET ST 3	OR 3	AND 3

ASSIGNABLE INPUTS < C + 0 + E = 126 >

	Column 9	Column A	Column B	Column C	Column D	Column E	Column F
0	PH ON 1	PE FAIL	FLHR 0	FREE	NOT 1	TOD 1	DIAL 2
1	PH ON 2	SP EV 1	FLHR 1	PLAN 1	OR 1	TOD 2 200	DIAL 3
2	PH ON 8	SP EV 2	F FLHR	PLAN 2	OR 2	TOD 3	OFF 1
3	PH ON 4	SP EV 3	FIG 3	PLAN 3	OR 3	TOD 4	OFF 2
4	PH ON 5	SP EV 4	FIG 4	PLAN 4	AND 1	TOD 5	OFF 3
5	PH ON 6	SP EV 5		PLAN 5	AND 2	TOD 6	FREE
6	PH ON 7	SP EV 6		PLAN 6	AND 3	TOD 7	FLASH
7	PH ON 8	SP EV 7		PLAN 7	NOT 2	TOD 8	PREMPT
8	PH CK 1	SP EV 8	NOT 3	PLAN 8	EV A	WARN 1	LOW - A
9	PH CK 2		NOT 4	PLAN 9	EV B	WARN 2	LOW - B
A	PH CK 3	DET FAIL	OR 4		EV C	DELAY A	LOW - C
B	PH CK 4	SP FUN 1	OR 5		EV D	DELAY B	LOW - D
C	PH CK 5	SP FUN 2	OR 6	NAND 3	RR 1	DELAY C	
D	PH CK 6	CNT CTL	AND 4	NAND 4	RR 2	DELAY D	
E	PH CK 7	X DWALK	NAND 1	OR 7	SP EV 1	DELAY E	
F	PH CK 8	X WALK	NAND 2	OR 8	SP EV 2	DELAY F	

ASSIGNABLE OUTPUTS < C + 0 + E = 127 >

	PLAN # -->	1	2	3	4	5	6	7	8	9	
0	PED ADJ										0
1	ST PERM 2										1
2	EN PERM 2										2
3	ST PERM 3										3
4	EN PERM 3										4
5	RSRV TIME										5

		1	2	3	4	5	6	7	8	
6	RSERVE PH									6
7										7
8	PRETIMED									8
9	MAX RECALL									9
A	PERM 1 VEH									A
B	PERM 1 PED									B
C	PERM 2 VEH									C
D	PERM 2 PED									D
E	PERM 3 VEH									E
F	PERM 3 PED									F

COORDINATION PAGE 2 < C + 0 + C = 2 >

Logic DELAY Times

Column B

A	DELAY A	
B	DELAY B	
C	DELAY C	
D	DELAY D	
E	DELAY E	
F	DELAY F	

< C + 0 + D = 0 >

7 - Wire Master Sync Time

7-WIRE SYNC OUTPUT :
(C/5 + 1 + C) = ____

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
(916) 441-0260

Traffic Signal Program 233 RV2
Timing Sheet 2 (of 7)
(Revised 10/97)

AGENDA ITEM NO. 3.

Clovis & Teague

PHASE BANK # 2 < C + 0 + F = 2 > (School Crossing)

		PHASE 1	2	3	4	5	6	7	8
		NB LT	SB	—	WB	—	NB	—	EB
0	WALK	—	10	—	10	—	—	—	10
1	DON'T WALK	—	17	—	29	—	—	—	20
2	MIN INITIAL	3	8	-	-	-	8	-	8
3	TYPE 3 LIMIT	—	18	-	-	-	18	-	-
4	ADD PER VEH	—	-	-	-	-	-	-	-
5	VEH EXT	2	3.7	—	-	-	3.6	-	2
6	MAX GAP	2	4.6	—	-	-	4.5	-	2
7	MIN GAP	2	2.4	—	-	-	2.3	-	2
8	MAX LIMIT	22	32	—	-	-	32	-	27
9	MAXIMUM 2	—	-	—	-	-	-	-	-
A	ADV/DLY WALK	-	-	-	-	-	-	-	-
B	MIN PED CLEAR	-	14	-	15	-	-	-	15
C	COND SRV MIN	-	-	-	-	-		-	-
D	REDUCE EVERY	-	1.0	-	-	-	1.0	-	-
E	YELLOW	3.0	4.3	-	3.9	-	4.3	-	3.9
F	RED CLEAR	1.0	1.0	-	1.0	-	1.0	-	1.0

		9	A	B	C	D
0						
1	PHASE 1					
2	PHASE 2					
3	PHASE 3					
4	PHASE 4					
5	PHASE 5					
6	PHASE 6					
7	PHASE 7					
8	PHASE 8					

MAX INITIAL - / ALT WALK - / ALT FLH D/W - / ALT INITIAL - / ALT EXTEN -

PHASE BANK # 3 < C + 0 + F = 3 >

		PHASE 1	2	3	4	5	6	7	8
0	WALK								
1	DON'T WALK								
2	MIN INITIAL								
3	TYPE 3 LIMIT								
4	ADD PER VEH								
5	VEH EXT								
6	MAX GAP								
7	MIN GAP								
8	MAX LIMIT								
9	MAXIMUM 2								
A	ADV/DLY WALK								
B	MIN PED CLEAR								
C	COND SRV MIN								
D	REDUCE EVERY								
E	YELLOW								
F	RED CLEAR								

		9	A	B	C	D
0						
1	PHASE 1					
2	PHASE 2					
3	PHASE 3					
4	PHASE 4					
5	PHASE 5					
6	PHASE 6					
7	PHASE 7					
8	PHASE 8					

MAX INITIAL - / ALT WALK - / ALT FLH D/W - / ALT INITIAL - / EXTEN -

DIMMING <C + 0 + E = 125>

OUT BIT NO.-->		Column D 1	2	3	4	5	6	7	8
0									
1	OUT PORT 1								
2	OUT PORT 2								
3	OUT PORT 3								
4	OUT PORT 4								
5	OUT PORT 5								
6	OUT PORT 6								
7	OUT PORT 7								
8									
9									
A									
B									
C									
D									
E									
F									

SPECIALS <C + 0 + F = 2>

		Column F 1	2	3	4	5	6	7	8
0	FAST GRN FLH								
1	GREEN FLASH								
2	FLASH WALK								
3	GUAR PASS								
4	SIMUL GAP	-	-	-	-	-	-	-	-
5	SEQ TIMING	X	X				X		X
6	ADV WALK								
7	DELAY WALK								
8	EXT RECALL								
9	START OVP GRN								
A	MAX EXTEN	X	X				X		X
B	INH PED RSRV								
C	SEMI ACTUATED								
D	START OVP YEL								
E	START VEH CALL	X	X				X		X
F	START PED CALL		X		X				X

REDIRECT PHASE OUTPUTS <C + 0 + E = 127>

		PED / PHASE / OVERLAP 1	2	3	4	5	6	7	8
0	WALK								
1	DON'T WALK								
2	PHASE GREEN								
3	PHASE YELLOW								
4	PHASE RED								
5	OVERLAP GREEN								
6	OVERLAP YELLOW								
7	OVERLAP RED								
8									
9									
A									
B									
C									
D									
E									
F									

Advance Warning Beacons

Sign # 1: Sign # 2:

PHASE NUMBER:
(F/1 + C + F) = 02 (F/1 + D + F) = 02

TIME BEFORE YELLOW:
(F/1 + C + E) = 04.0 (F/1 + D + E) = 04.0

Output Pin Number is specified in Assignable Outputs at E/127+E...

Exclusive Pedestrian Phase

WALK:
(F/1 + 0 + 0) = 00

DONT WALK:
(F/1 + 0 + 1) = 02

RED CLEAR:
(F/1 + 0 + 2) = 04.0

Enable / Disable Phase Redirection

CABINET TYPE:
(E/125 + D + 0) = 00

CABINET TYPE
0 = Disable Redirection
30 = Enable Redirection
(For Type 303 & 330 Cabinets, or other "specials")

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
(916) 441-0260

Traffic Signal Program 233 RV2
Timing Sheet 3 (of 7)
(Revised 10/97)

Column --> 1 | DELAY | CARRY-OVER: 3

Detector Position Numbers		DELAY	CARRY-OVER
01	0	—	1.3
02	1	—	1.3
03	2		
04	3	—	9.0
05	4	—	—
06	5	—	—
07	6		
08	7	—	9.0
09	8	—	2.0
10	9	—	2.0
11	A		
12	B		
13	C		
14	D	—	—
15	E		
16	F	—	—

< C + 0 + D = 0 >

DETECTOR ASSIGNMENTS < C + 0 + E = 126 >

	Column 0 C1 PIN NUMBER	Column 1 ATTRIBUTES 1 2 3 4 5 6 7 8	Column 2 PHASE(S) 1 2 3 4 5 6 7 8	Column 3 ASSIGNMENTS 1 2 3 4 5 6 7 8
0	39		X	X X X X
1	40		X	X X X X
2	41		X	X X X X
3	42		X	X X X X
4	43		X	X X X X
5	44		X	X X X X
6	45		X	X X X X
7	46		X	X X X X
8	47		X	X X X X
9	48		X	X X X X
A	49		X	X X X X
B	50		X	X X X X
C	55		X	X X X X
D	56		X	X X X X
E	57		X	X X X X
F	58		X	X X X X

Column --> 2 | DELAY | CARRY-OVER: 4

Detector Position Numbers		DELAY	CARRY-OVER
17	0		
18	1		
19	2		
20	3		
21	4	10	—
22	5		
23	6		
24	7	10	—
25	8	—	—
26	9		
27	A	—	—
28	B	—	—
29	C		
30	D		
31	E		
32	F	10	—

< C + 0 + D = 0 >

DETECTOR ASSIGNMENTS < C + 0 + E = 126 >

	Column 4 C1 PIN NUMBER	Column 5 ATTRIBUTES 1 2 3 4 5 6 7 8	Column 6 PHASE(S) 1 2 3 4 5 6 7 8	Column 7 ASSIGNMENTS 1 2 3 4 5 6 7 8
0	59		X	X X X X
1	60		X	X X X X
2	61		X	X X X X
3	62		X	X X X X
4	63		X	X X X X
5	64		X	X X X X
6	65		X	X X X X
7	66		X	X X X X
8	67	X	X	X X X X
9	68	X	X	X X X X
A	69	X	X	X X X X
B	70	X	X	X X X X
C	76		X	X X X X
D	77		X	X X X X
E	78		X	X X X X
F	79		X	X X X X

DETECTOR ATTRIBUTES

1 = Full Time Delay
2 = Pedestrian Call
3 =
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alterna...

DETECTOR ASSIGNMENTS

1 = Det. Set # 1
2 = Det. Set # 2
3 = Det. Set # 3
4 =
5 =
6 = MIN Recall On Failure
7 = MAX Recall On Failure
8 = Report On Failure

		1	2	3	4	5	6	7	8	
0	LOAD SW #									0
		1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	
1	VEH SET #1									1
2	VEH SET #2									2
3	VEH SET #3									3
4	NEG VEH									4
5	NEG PED									5
6	GREEN OMIT									6
7	GRN CLR OMT									7
8										8
D	GRN CLEAR									D
E	YELLOW									E
F	RED CLEAR									F

OVERLAP ASSIGNMENTS < C + 0 + E = 29 >

Detector Monitor

MAX OFF:
(D/0 + 0 + 1) = 20
MAX ON:
(D/0 + 0 + 2) = 7 Minutes

Power Cycle Correction Factors

LONG FAILURE:
(F/1 + 0 + 6) = 0.7
SHORT FAILURE:
(F/1 + 0 + 7) = 0.7

NOTE: Do Not Set To Zero. Default Value = 0.7 sec.

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
(916) 441-0260

Traffic Signal Program 233 RV2
Timing Sheet 4 (of 7)
(Revised 11/97)

CLOVIS & TEAGUE

AGENDA ITEM NO. 3.

COORD (9 Key)

	TIME HHMM	PLAN	OFFSET	DAY OF WEEK 8	M	T	W	T	F	8
				1	2	3	4	5	6	7
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

< C + 0 + 9 = 0.1 >

COORD (9 Key)

	TIME HHMM	PLAN	OFFSET	DAY OF WEEK 8	M	T	W	T	F	8
				1	2	3	4	5	6	7
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

< C + 0 + 9 = 0.2 >

TOD FUNCT. (7 Key)

	TIME HHMM	FUNCT	DAY OF WEEK 8	M	T	W	T	F	8	Column 4 PHASES / BITS 1	2	3	4	5	6	7	8
			1	2	3	4	5	6	7								
0	0001	F	X	X	X	X	X	X	X								
1	0745	F		X	X	X	X	X	X	X							
2	1545	F		X	X	X	X	X	X								
3																	
4																	
5																	
6																	
7																	
8																	
9																	
A																	
B																	
C																	
D																	
E																	
F	0001	E	X	X	X	X	X	X	X							X	X

< C + 0 + 7 = 1 > < C + 0 + E = 27 >

HOLIDAY TOD FUNCT. (7 Key)

	TIME HHMM	FUNCT	HOLIDAY TYPE 1	2	3	4	5	6	7	Column 4 PHASES / BITS 1	2	3	4	5	6	7	8
0																	
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
A																	
B																	
C																	
D																	
E																	
F																	

< C + 0 + 7 = 2 > < C + 0 + E = 28 >

T.O.D. FUNCTIONS

0 =
1 = Red Lock
2 = Yellow Lock
3 = Veh. MIN Recall
4 = Ped. Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh. MAX Recall
A = Veh. SOFT Recall
B = Maximum 2
C = Conditional Servic
D = Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Det. OFF Monitor
Bit 7 - Det. Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 Thru 8

HOLIDAY EVENTS

	TIME HHMM	PLAN	OFFSET	HOLIDAY TYPE 1	2	3	4	5	6	7
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

< C + 0 + 9 = 1.1 >

HOLIDAY EVENTS

	TIME HHMM	PLAN	OFFSET	HOLIDAY TYPE 1	2	3	4	5	6	7
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

< C + 0 + 9 = 1.2 >

HOLIDAY DATES

	DAY	YEAR	MONTH	HOLIDAY TYPE 1	2	3	4	5	6	7
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

< C + 0 + 8 = 1.1 >

HOLIDAY DATES

	DAY	YEAR	MONTH	HOLIDAY TYPE 1	2	3	4	5	6	7
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

< C + 0 + 8 = 1.2 >

PLAN SELECT
1 = Coordination Plan 1
thru
9 = Coordination Plan 9
E = Free
F = Flash

OFFSET SELECT
A = Offset A
B = Offset B
C = Offset C

MONTH SELECT
1 = January
2 = February
3 = March
4 = April
5 = May
6 = June
7 = July
8 = August
9 = September
A = October
B = November
C = December

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
(916) 441-0260

Traffic Signal Program 233 RV2
Timing Sheet 5 (of 7)
(Revised 10/97)

	6 CLEAR	7 TIME	8 PED CALL	9 HOLD	A ADVANCE	B FORCEOFF	C CALL	D PERMIT	E PED OMIT	F OUTPUT	
	1 2 3 4 5 6 7 8		1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	
0											0
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9											9
A											A
B											B
C											C
D											D
E											E
F											F

SPECIAL EVENT SCHEDULE – TABLE # 1 <C + 0 + E = 27>

INPUT C1 PIN ASSIGNMENT: (E/126 + F + 7) = Ø

LIMITED SERVICE INTERVAL: (E/27 + 5 + F) = Ø

	6 CLEAR	7 TIME	8 PED CALL	9 HOLD	A ADVANCE	B FORCEOFF	C CALL	D PERMIT	E PED OMIT	F OUTPUT	
	1 2 3 4 5 6 7 8		1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	
0											0
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9											9
A											A
B											B
C											C
D											D
E											E
F											F

SPECIAL EVENT SCHEDULE – TABLE # 2 <C + 0 + E = 28>

INPUT C1 PIN ASSIGNMENT: (E/126 + F + 8) = Ø

LIMITED SERVICE INTERVAL: (E/28 + 5 + F) = Ø

BI Tran Systems, In
510 Bercut Dr., Sacramento, Calif. 95
(916) 441-0260

Traffic Signal Program 233 R
Timing Sheet 6 (of 7)
(Revised 10/97)

AGENDA ITEM NO. 3.

CLOVIS & TEALE

AGENDA ITEM NO. 3.

Controller Intervals

0 = Walk	8 = Red Rest
1 = FDW	9 = Preemption
2 = Min. Green	A = Stop Time
3 =	B = Red Revert
4 = Var. Initial	C = Yellow - Gap Termination
5 = Extension	D = Yellow - Max. Termination
6 =	E = Yellow - Forceoff Termination
7 = Reduce Gap	F = Red Clearance

Interval Timer Display

Ring A = F/0 + A + Interval Row
Ring B = F/0 + B + Interval Row
(Interval Row From PHASE BANK Data)

412/C Memory Module Lithium Battery Condition

To check the condition of the 3.6 volt Lithium Battery on the 412/C Memory Module :

If E/112 + 0 + A = 84 - the battery is BAD
If E/112 + 0 + A = 85 - the battery is O.K.

Monitor "Activate" Flags

(Also Requires T.O.D. Function "E" Flag)

Detector Count Recording :
E/2 + 0 + 9 = Not Zero

Real Time Split Monitor :
E/2 + 0 + E = Not Zero

Special Event Schedules

Special Event #1 : C + 0 + E = 27
Special Event #2 : C + 0 + E = 28

Current Interval = E + 5 + 0
Current Interval Timer = E + 5 + B
Current Interval Clearance Phases = E + 5 + C

Time of Day Function (7 Key)

Current T.O.D. "E Function" Control Bits = C/0 + E + E
Current T.O.D. "F Function" Output Bits = C/0 + E + F

Logic DELAY Gate Delay Timer Display

DELAY A Timer = C/0 + 9 + A
DELAY B Timer = C/0 + 9 + B
thru thru
DELAY F Timer = C/0 + 9 + F

Power & Flash Recording

Last Power Failure :
(HR-MIN-DOW) = 8 + 4
(DOM-YR-MONTH) = 8 + 5

Last Cabinet Flash :
(HR-MIN-DOW) = 8 + 6
(DOM-YR-MONTH) = 8 + 7

Power Fail Counts :
(Long Failures) = F/1 + 0 + C
(Short Failures) = F/1 + 0 + D

Current Time :
(HR-MIN-DOW) = 8 + 0
(DOM-YR-MONTH) = 8 + 1
(MIN-SEC-1/10 SEC) = 8 + F

Display Locations

	Plan Select	Offset Select
Manual	C/0 + A + 1	C/0 + B
Master	C/0 + A + 2	C/0 + B + 1
Current	C/0 + A + 3	C/0 + B + 2
Next	C/0 + A + 4	C/0 + B + 3
TOD	C/0 + A + 5	C/0 + B + 4

Master Cycle = C/0 + A + 0
Ring A Cycle = C/0 + B + 0
Ring B Cycle = C/0 + D + 0

MIN Cycle = C/0 + A + E
MAX Cycle = C/0 + B + E

Phase Hold = C/0 + F + D
Phase Next = C/0 + F + E
Force Off = C/0 + F + F
(With Ring A Cycle Timer)

Current Calculated Cycle Length = C/0 + B + F
Current Permitted Phases = E/0 + 7 + 8
Current Phase Bank = F/0 + C + E

View Locations

DIAL-OUT TELEPHONE NUMBER

		D
0	NO. OF DIGITS	
1	1 st DIGIT	
2	2 nd DIGIT	
3	3 rd DIGIT	
4	4 th DIGIT	
5	5 th DIGIT	
6	6 th DIGIT	
7	7 th DIGIT	
8	8 th DIGIT	
9	9 th DIGIT	
A	10 th DIGIT	
B	11 th DIGIT	
C	12 th DIGIT	
D	13 th DIGIT	
E	14 th DIGIT	
F	15 th DIGIT	

< C + 0 + C = 5 >

DIAL-UP ("stand alone") Modem Interface

Set C/5+D+0 (NUMBER OF DIGITS) to a "Non-Zero" value. This will disable parity for "Smart Modem" operation.

NOTE : DO NOT set to a "Non-Zero" value without also programming a number to dial.

REDIAL TIME

(C/5 + C + 0) = 10 Minutes

NOTE: The Redial Timer is at location E/2+D+6

DISABLE ALARM REPORTING

Column F

		1	2	3	4	5	6	7	8
0	OMIT ALARMS								

< C + 0 + C = 5 >

1 = Stop Time
2 = Flash Sense
3 = Keyboard Entry
4 = Manual Plan
5 = Police Control
6 = External Alarm
7 = Detector Failure
8 =

Default is: Report All Alarms (No Flags Set)

PROGRAMMABLE DAYLIGHT SAVINGS IMPLEMENTATION

		Column 2
A	Begin MONTH	4
B	Begin WEEK	1
C	End MONTH	10
D	End WEEK	5

< C + 0 + C = 5 >

If WEEK = 5, use last week of month. If WEEK and MONTH are set to Zero, use "default" date.

PREEMPT PRIORITY

		Column C
0	EV A	
1	EV B	
2	EV C	
3	EV D	
4	RR 1	
5	RR 2	
6	8E 1	
7	8E 2	

< C + 0 + E = 125 >

Highest value has highest priority. If all are set to Zero, use "default" priority.

DISABLE LOW PRIORITY :

(E/125 + C + 8) =

1	2	3	4	5	6	7	8

1 = Low Priority A
2 = Low Priority B
3 = Low Priority C
4 = Low Priority D
5 = Not Used
6 = Not Used
7 = Not Used
8 = Not Used

MINIMUM GREEN FOR PREEMPT FORCE-OFF :

(F/1 + 0 + 8) = 4 Seconds

MAXIMUM PREEMPT TIME :

(F/1 + 0 + 9) = 255 Minutes

For Emergency Vehicle and RR-2 Limited Service.
(Output at E/127+A+0)
Note: Set to 255 to Disable

SAME CHANNEL PREEMPT LOCKOUT TIME :

(F/1 + 0 + A) = 0 Seconds

Does not apply to Railroad Preempt

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
(916) 441-0260

Traffic Signal Program 233 RV2
Timing Sheet 7 (of 7)
(Revised 10/98)

222 LOOP AMP. 242 I

232 MAG AMP. DISCRIMINATOR

AGENDA ITEM NO. 3.

Standard 332 Cabinet Location		Column 0 C1 PIN NUMBER	Column 1 ATTRIBUTES 1 2 3 4 5 6 7 8	Column 2 PHASE(S) 1 2 3 4 5 6 7 8	Column 3 ASSIGNMENTS 1 2 3 4 5 6 7 8
INT.	I-2 U --->	0 39	XX X	X	XXX X
INT.	J-2 U --->	1 40	XX X	X	XXX X
	I-6 U --->	2 41	XX X	X	XXX
FAR	J-6 U --->	3 42	XX X	X	XXX X
FAR	I-2 L --->	4 43	XX X	X	XXX X
FAR	J-2 L --->	5 44	XX X	X	XXX X
	I-6 L --->	6 45	XX X	X	XXX
FAR	J-6 L --->	7 46	XX X	X	XXX X
CALL	I-4 --->	8 47	XX X	X	XXX X
CALL	J-4 --->	9 48	XX X	X	XXX X
	I-8 --->	A 49	XX X	X	XXX
	J-8 --->	B 50	XX X	X	XXX X
	J-1 --->	C 55	XX X	X	XXX X
SB LT/T	I-1 --->	D 56	XX X	X	XXX X
	J-5 --->	E 57	XX X	X	XXX X
EB NEAR	I-5 --->	F 58	XX X	X	XXX X

"INITIALIZED" DETECTOR ASSIGNMENTS
< C + 0 + E = 126 >

Standard 332 Cabinet Location		Column 4 C1 PIN NUMBER	Column 5 ATTRIBUTES 1 2 3 4 5 6 7 8	Column 6 PHASE(S) 1 2 3 4 5 6 7 8	Column 7 ASSIGNMENTS 1 2 3 4 5 6 7 8
	J-9 U --->	0 59	XX X	X	XXX
	I-9 U --->	1 60	XX X	X	XXX
	J-9 L --->	2 61	XX X	X	XXX
	I-9 L --->	3 62	XX X	X	XXX
SB R/T	I-3 U --->	4 63	XX X	X	XXX X
	J-3 U --->	5 64	XX X	X	XXX
	I-7 U --->	6 65	XX X	X	XXX
EBRT	J-7 U --->	7 66	XX X	X	XXX X
PEDS	I-12 U --->	8 67	X	X	XXX
PEDS	I-13 U --->	9 68	X	X	XXX
PEDS	I-12 L --->	A 69	X	X	XXX
PEDS	I-13 L --->	B 70	X	X	XXX
	I-3 L --->	C 76	XX X	X	XXX
	J-3 L --->	D 77	XX X	X	XXX
	I-7 L --->	E 78	XX X	X	XXX
EBRT	J-7 L --->	F 79	XX X	X	XXX X

"INITIALIZED" DETECTOR ASSIGNMENTS
< C + 0 + E = 126 >

DETECTOR ATTRIBUTES

1 = Full Time Delay
2 = Pedestrian Call
3 =
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

DETECTOR ASSIGNMENTS

1 = Det. Set # 1
2 = Det. Set # 2
3 = Det. Set # 3
4 =
5 =
6 = MIN Recall On Failure
7 = MAX Recall On Failure
8 = Report On Failure

Input File Slot No. --> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

	1	2 (NB LT)	3 (SB INT)	4 (SB RT)	5 (SB NEAR)	6 (EB NEAR)	7	8	9	10	11	12	13	14
"I" FILE	1 Ext, Cnt, Call <C1-56>	2 1,3 Ext, Cnt, Call <C1-39>	2 DEL 10 Ext, Cnt, Call <C1-63>	2.0 2 Type 3, Call <C1-47> 2.0	8 8 <C1-58>	4 Ext, Cnt, Call <C1-41>	4 Ext, Cnt, Call <C1-65>	4 Type 3, Call <C1-49>	1 Ext, Cnt, Call <C1-60>	NOT WIRED	Not Assigned <C1-80>	2 Ped Call <C1-67>	6 Ped Call <C1-68>	Flash Sense <C1-81>
		2 Ext, Cnt, Call <C1-43>	2 Ext, Cnt, Call <C1-76>			4 Ext, Cnt, Call <C1-45>	4 Ext, Cnt, Call <C1-78>		3 Ext, Cnt, Call <C1-62>		Not Assigned <C1-53>	4 Ped Call <C1-69>	8 Ped Call <C1-70>	Stop Time <C1-82>
"J" FILE	5 Ext, Cnt, Call <C1-55>	6 1,3 Ext, Cnt, Call <C1-40>	6 Ext, Cnt, Call <C1-64>	2.0 6 Type 3, Call <C1-48>	7 Ext, Cnt, Call <C1-57>	8 20 Ext, Cnt, Call <C1-42>	8 DEL 10 Ext, Cnt, Call <C1-66>	8 Type 3, Call <C1-50>	5 Ext, Cnt, Call <C1-59>	NOT WIRED	Not Assigned <C1-54>	EV A Preempt <C1-71>	EV B Preempt <C1-72>	Railroad 1 <C1-51>
		6 Ext, Cnt, Call <C1-44>	6 Ext, Cnt, Call <C1-77>			8 Ext, Cnt, Call <C1-46>	8 DEL 10 Ext, Cnt, Call <C1-79>		7 Ext, Cnt, Call <C1-61>		Not Assigned <C1-75>	EV C Preempt <C1-73>	EV D Preempt <C1-74>	Railroad 2 <C1-52>

(SB FAR NB LT) (SB NEAR NB NEAR) (EB FAR EB NEAR RT) (NB FAR) (EB FAR EB NEAR RT)

"INITIALIZED" INPUT FILE ASSIGNMENTS --- STANDARD 332 CABINET
< "C-1" Harness Type # 1 >

DETECTOR TYPES

Ext = Extension Detector
Detector is only active during the Phase's GREEN Intervals (ie, *will NOT Call* the Phase)
Cnt = Count Detector
Used in computing "Added Initial"
Call = Calling Detector
Detector is only active during the Phase's NON-GREEN Intervals (ie, *will NOT Extend* the Phase)
Type 3 = Type 3 Disconnect
Will allow a Calling Detector to Extend its Phase until the Conflicting Call first drops or the "Type 3 Limit" is reached

4 PS

BI Tran Systems, Inc.
510 Bercut Dr., Sacramento, Calif. 95814
916/441-0260
Traffic Signal Program 233
Initialized Detector Assignments
(Revised 8/92) 332 Cabinet

Station : 304 - CLOVIS @ NEES (Standard File)

Phase Timings 1-16 [1.1.1] NBLT SB EBLT WB SBLT NB WBLT EB

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		22		23		21		22								
Min Green	9	8	9	8	9	8	9	8								
Passage	2	4.2	2	4.1	2	4.2	2	4.2								
Max1	35	40	35	40	30	40	30	40								
Max2																
Yellow	3	4.3	3	4.3	3	4.3	3	4.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	1	1	1	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	1	1	1	1	1	1	1	1								
Added Initial																
Max Initial																
Time Before Reduce		17		17		17		17								
Cars Before Reduce																
Time To Reduce		13		13		13		13								
Reduce By																
Min Gap	2	2.9	2	2.8	2	2.9	2	2.9								
Dynamic Max Limit																
Dynamic Max Step																
Auto Exit																
Rest In Walk																

Phase Option [1.1.2]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Entry																
Non Act1																
Non Act2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall																
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Cond Service																
Add Init Calc																

Phase Option+ [1.1.3]/[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reservice																
Ped Clr Thru Yellow																
Skip Red																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conf Phs1																
Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel				1				5								
Inhibit P1																
Inhibit P2																
Inhibit P3																
Inhibit P4																
Inhibit P5																
Inhibit P6																
Inhibit P7																
Inhibit P8																
Call Phs1																
Call Phs2																
Call Phs3																
Call Phs4																
From Phs1																
To Phs1																
From Phs2																
To Phs2																
From Phs3																
To Phs3																
From Phs4																
To Phs4																

Prepared By	Date Implemented	Reviewed By	Traffic Engineer
	9/19/2014		

Station : 304 - CLOVIS @ NEES (Standard File)

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 304 - CLOVIS @ NEES (Standard File)

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	LONG	MAX 1	FIXED

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
TIMED	TIMED	NO_RECYCLE	OFF	OFF	OFF	OFF	OFF	0	+	OFF	OFF	OFF

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time																
Offset Time																
Split Number																
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern+ 1-16 [2.5][2.6]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Short																
Long	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Dwell																
No Short P 1																
No Short P 2																
No Short P 3																
No Short P 4																
Early Yield																
Offset	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn
CNA	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Max 2	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Float	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Min Veh Perm	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Min Ped Perm	on	on	on	off	off	off	off	off	off	off	off	off	off	off	off	off
Percentage	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
MI	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Ret Hold	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
CIC Plan																
Ph Opt Table	1	2	3													
Ph Time Table																
Det Grp																
Call Inh																
Inh Perm Phs 1	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 2	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 3	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 4	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 5	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 6	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 7	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Inh Perm Phs 8	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Dia Mode	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft
Force Mode	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft	dft

Channels/SDLC, Assign to Phases [1.3.1](v61) or [1.8.1](v65, v76)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Station : 304 - CLOVIS @ NEES (Standard File)

Detector, Vehicle Parameters & Options [5.1][5.2]

1-16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume	ON			ON		ON			ON			ON		ON		
Occupancy																
Yellow Lock			ON						ON							
Red Lock	ON						ON					ON			ON	
Extend	ON	ON	ON	ON			ON	ON	ON	ON			ON	ON	ON	ON
Added Initial																
Queue					ON	ON					ON	ON				
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	4	4	4	1	3	5	6
Switch Phase																
Delay Time				10												
Extend Time					2	2					2	2				
Queue Limit					20	20					20	20				
No Activity																
Max Presence																
Erratic Counts																
Fail Time	2	2	2	2	2	2	2	2	2		2	2	2	2	2	2

17-32

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Volume		ON		ON				ON		ON	ON	ON				
Occupancy																
Yellow Lock	ON						ON									
Red Lock				ON	ON					ON						
Extend	ON	ON			ON	ON	ON	ON			ON	ON				
Added Initial																
Queue			ON	ON					ON	ON						
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON				
Call Phase	6	6	6	6	7	8	8	8	8	8	5	7				
Switch Phase																
Delay Time		10						10								
Extend Time			2	2					2	2						
Queue Limit			20	20					20	20						
No Activity																
Max Presence																
Erratic Counts																
Fail Time	2	2	2	2	2	2	2	2	2	2	2	2				

33-48

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase																
Switch Phase																
Delay Time																
Extend Time																
Queue Limit																
No Activity																
Max Presence																
Erratic Counts																
Fail Time																

Station : 304 - CLOVIS @ NEES (Standard File)

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase																
Switch Phase																
Delay Time																
Extend Time																
Queue Limit																
No Activity																
Max Presence																
Erratic Counts																
Fail Time																

Detector, Vehicle Parameters+ [5.3]

1-16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1																
Delay Phase 2																
Source																

17-32

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1																
Delay Phase 2																
Source																

33-48

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1																
Delay Phase 2																
Source																

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1																
Delay Phase 2																
Source																

Detector, Ped Detectors 1-16 [5.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase		2		4		6		8								
No Activity																
Max Presence																
Erratic Cnt																

Station : 304 - CLOVIS @ NEES (Standard File)

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases	Modifer Phases	Type	Green	Yellow	Red
Overlap 1			NORMAL		3.5	1.5
Overlap 2			NORMAL		3.5	1.5
Overlap 3			NORMAL		3.5	1.5
Overlap 4			NORMAL		3.5	1.5
Overlap 5			NORMAL		3.5	1.5
Overlap 6			NORMAL		3.5	1.5
Overlap 7			NORMAL		3.5	1.5
Overlap 8			NORMAL		3.5	1.5
Overlap 9			NORMAL		3.5	1.5
Overlap 10			NORMAL		3.5	1.5
Overlap 11			NORMAL		3.5	1.5
Overlap 12			NORMAL		3.5	1.5
Overlap 13			NORMAL		3.5	1.5
Overlap 14			NORMAL		3.5	1.5
Overlap 15			NORMAL		3.5	1.5
Overlap 16			NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases	Conflicting Overlaps	Conflicting Peds
Overlap 1			
Overlap 2			
Overlap 3			
Overlap 4			
Overlap 5			
Overlap 6			
Overlap 7			
Overlap 8			
Overlap 9			
Overlap 10			
Overlap 11			
Overlap 12			
Overlap 13			
Overlap 14			
Overlap 15			
Overlap 16			

Flash Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
35	15		

Flash, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

Station : 304 - CLOVIS @ NEES (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Yellow 3 Second Disable	Omit Yellow Enable	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Disable Init Ped	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time					
	OFF	1	RST	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF					

Ring Sequence 1 [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Phase Startup, Concur [1.1.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	RED	RED	RED	YELLOW	RED	RED	RED	YELLOW	RED	RED	RED	RED	RED	RED	RED	RED
Ring	1	1	1	1	2	2	2	2								
Concur 1	5	5	7	7	1	1	3	3								
Concur 2	6	6	8	8	2	2	4	4								
Concur 3																
Concur 4																
Concur 5																
Concur 6																
Concur 7																
Concur 8																

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
304								

Station : 304 - CLOVIS @ NEES (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	
4	ON
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	ON
15	
16	
17	ON
18	ON
19	ON
20	ON
21	
22	
23	
24	
25	
26	
27	
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	ON
50	
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	
60	ON
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	
4	ON
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	ON
15	
16	
17	ON
18	ON
19	ON
20	ON
21	
22	
23	
24	
25	
26	
27	
28	
29	ON
30	ON
31	ON
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	ON
50	
51	ON
52	ON
53	ON
54	ON
55	
56	
57	
58	
59	
60	ON
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

76			
77			
78		78	
79		79	
80		80	
81		81	
82		82	
83		83	
84		84	
85		85	
86		86	
87		87	
88		88	
89		89	
90		90	
91		91	
92		92	
93		93	
94		94	
95		95	
96		96	
97		97	
98		98	
99		99	
100		100	
101		101	
102		102	
103		103	
104		104	
105		105	
106		106	
107		107	
108		108	
109		109	
110		110	
111		111	
112		112	
113		113	
114		114	
115		115	
116		116	
117		117	
118		118	
119		119	
120		120	
121		121	
122		122	
123		123	
124		124	
125		125	
126		126	
127		127	
128		128	

Station : 304 - CLOVIS @ NEES (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON		ON	ON	ON
Override Higher	ON	ON	ON	ON	ON	ON
Flash Dwell	ON					
Link						
Delay						
Min Duration						
Min Green						
Min Walk			4	4	4	4
Ped Clear			18	18	17	19
Track Green						
Min Dwell						
Max Presence			60	60	60	60
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1			2	4	1	3
Dwell P2			5	7	6	8
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON		ON	ON	ON	ON
Type	RAIL	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Max Green						

Low Priority Preempt [3]

Preempt	7	8	9	10
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock in Mins				
Headway in Mins				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Station : 304 - CLOVIS @ NEES (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2																																																		1
3																																																			1
4																																																		1
5																																																		1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
11																																																		1
12																																																		1
13																																																		1
14																																																		1
15																																																		1
16																																																		1
17																																																		1
18																																																		1
19																																																		1
20																																																		1
21																																																		1
22																																																		1
23																																																		1
24																																																		1
25																																																		1
26																																																		1
27																																																		1
28																																																		1
29																																																		1
30																																																		1
31																																																		1
32																																																		1

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	14	19	21											
Minute	1	20														
Action	3	1	2	3	3											

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 304 - CLOVIS @ NEES (Standard File)

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day plan Link 1-16 [4.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Link																

Station : 304 - CLOVIS @ NEES (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11					0	0						
12					0	0						
13					0	0						
14					0	0						
15					0	0						
16					0	0						
17					0	0						
18					0	0						
19					0	0						
20					0	0						
21					0	0						
22					0	0						
23					0	0						
24					0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54	254				0	0						
55	255				0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
65					0	0						
66					0	0						
67					0	0						
68					0	0						
69					0	0						
70					0	0						
71					0	0						
72					0	0						
73					0	0						
74					0	0						
75					0	0						
76					0	0						

77					0	0						
78					0	0						
79					0	0						
80					0	0						
81					0	0						
82					0	0						
83					0	0						
84					0	0						
85					0	0						
86					0	0						
87					0	0						
88					0	0						
89					0	0						
90					0	0						
91					0	0						
92					0	0						
93					0	0						
94					0	0						
95					0	0						
96					0	0						
97					0	0						
98					0	0						
99					0	0						
100					0	0						

Channels/SDLC+, IO Logic [1.8.7]

	1	2	3	4	5	6	7	8	9	10
Result										
Operand 1										
Operand 2										
Operand 3										
Operator 1 Function	----	----	----	----	----	----	----	----	----	----
Operand 1 Result	I	I	I	I	I	I	I	I	I	I
Operand 1 IO	I	I	I	I	I	I	I	I	I	I
Operand 1 Invert	-	-	-	-	-	-	-	-	-	-
Operator 2 Function	----	----	----	----	----	----	----	----	----	----
Operand 2 IO	I	I	I	I	I	I	I	I	I	I
Operand 2 Invert	-	-	-	-	-	-	-	-	-	-
Operator 3 Function	----	----	----	----	----	----	----	----	----	----
Operand 3 IO	I	I	I	I	I	I	I	I	I	I
Operand 3 Invert	-	-	-	-	-	-	-	-	-	-
Time Operator	DLY	DLY	DLY	DLY	DLY	DLY	DLY	DLY	DLY	DLY
Time										

User Input map [1.8.9.1]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8

User Output map [1.8.9.2]

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8

Station : 304 - CLOVIS @ NEES (Standard File)

Miscellaneous Data

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 3, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 1, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
2	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
3	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
4	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
5	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
6	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
7	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
8	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		

Alternate Phase Program 2, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
2	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
3	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
4	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
5	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
6	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
7	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		
8	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF		

Alternate Phase Program 3, Phase Options [1.1.6.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
2	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
3	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
4	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
5	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
6	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
7	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		
8	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF		

Station : 304 - CLOVIS @ NEES (Standard File)

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1													
2													
3													
4													
5													
6													
7													
8													

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1													
2													
3													
4													
5													
6													
7													
8													

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Queue																
Call Phase																
Switch Phase																
Delay Time																
No Activity																
Max Presence																
Erratic Cnt																
Fail Time																

Detector Alternate Program 1, Vehicle Options [5.5.2]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Added Initial																
Call																
Extend Time																
Queue Limit																

Detector Alternate Program 1, Ped Parameters [5.5.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase																
No Activity																
Max Presence																
Erratic Cnt																

Channel/SDLC +, Assign to Phases [1.8.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate																								
Override Type																								
Override Source																								

Station : 304 - CLOVIS @ NEES (Standard File)

Communication, IP Parameters [6.5]

	Octet 1	Octet 2	Octet 3	Octet 4

ID NUMBER: 0304
LOCATION: CLOVIS AND NEES

CITY OF CLOVIS
332L CABINET
28 DETECTOR SETUP

DETECTOR ASSIGNMENTS

												ISOLATORS		
	NBLT	SB INT	SBRT	SB NEAR	EBLT	WB INT		WB NEAR	NBLT			SB	NB	
I	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call & Ext T2-1 & 2 C1-56 DET 1 VOL RED LOCK LOOP A	Ph 2 Call & Ext T2-5 & 6 C1-39 DET 2	Ph 2 Call & Ext T2-9 & 10 C1-63 DET 4 10 DET VOL	Ph 2 Call & Ext T4-1 & 2 C1-47 DET 6 2 Sec VOL RED LOCK QUEUE #1 LANE	Ph 3 Call & Ext T4-5 & 6 C1-58 DET 7 RED LOCK LOOP A	Ph 4 Call & Ext T4-9 & 10 C1-41 DET 8	Ph 4 Call & Ext T6-1 & 2 C1-65 DET 10	Ph 4 Call & Ext T6-5 & 6 C1-49 DET 12 2 Sec VOL RED LOCK QUEUE #1 LANE	Ph 1 Call & Ext T6-9 & 10 C1-60 DET 13 LOOP B & C	NOT WIRED	NOT ASSIGNED C1-80	Ph 2 PED CALL C1-67	Ph 6 PED CALL C1-68	FLASH SENSE C1-81
LOWER	Ph 1 Call & Ext T2-3 & 4 C1-56 DET 1 VOL RED LOCK	Ph 2 Call & Ext T2-7 & 8 C1-43 DET 3 YEL LOCK	Ph 2 Call & Ext T2-11 & 12 C1-76 DET 5 2 Sec QUEUE LOOP B	Ph 2 Call & Ext T4-3 & 4 C1-47 DET 6 2 Sec VOL RED LOCK QUEUE #2 LANE	Ph 3 Call & Ext T4-7 & 8 C1-58 DET 7 RED LOCK LOOP B	Ph 4 Call & Ext T4-11 & 12 C1-45 DET 9 VOL YEL LOCK	Ph 4 Call & Ext T6-3 & 4 C1-78 DET 11 2 Sec QUEUE LOOP B	Ph 4 Call & Ext T6-7 & 8 C1-49 DET 12 2 Sec VOL RED LOCK QUEUE #2 LANE	Ph 3 Call & Ext T6-11 & 12 C1-62 DET 14 VOL LOOP C	NOT WIRED	NOT ASSIGNED C1-53	Ph 4 PED CALL C1-69	Ph 8 PED CALL C1-70	STOP TIME C1-82
		SB FAR	SB NEAR	SB NEAR	EBLT	WB FAR	WB NEAR	WB NEAR	EBLT			WB	EB	
	SBLT	NB INT	NBRT	NB NEAR	WBLT	EB INT	EBRT	EB NEAR	SBLT			SB	WB	UPS
J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call & Ext T3-1 & 2 C1-55 DET 15 RED LOCK LOOP A	Ph 6 Call & Ext T3-5 & 6 C1-40 DET 16	Ph 6 Call & Ext T3-9 & 10 C1-64 DET 18 10 DET VOL	Ph 6 Call & Ext T5-1 & 2 C1-48 DET 20 2 Sec VOL RED LOCK QUEUE #1 LANE	Ph 7 Call & Ext T5-5 & 6 C1-57 DET 21 RED LOCK LOOP A	Ph 8 Call & Ext T5-9 & 10 C1-42 DET 22	Ph 8 Call & Ext T7-1 & 2 C1-66 DET 24 10 DET VOL	Ph 8 Call & Ext T7-5 & 6 C1-50 DET 26 2 Sec VOL RED LOCK QUEUE #1 LANE	Ph 5 Call & Ext T7-9 & 10 C1-59 DET 27 VOL LOOP C	NOT WIRED	NOT ASSIGNED C1-54	PH 2 & 5 EVA Preempt C1 - 71	PH 4 & 7 EVB Preempt C1 - 72	LOW BATT RAILROAD 1 C1-51
LOWER	Ph 5 Call & Ext T3-3 & 4 C1-55 DET 15 RED LOCK LOOP B	Ph 6 Call & Ext T3-7 & 8 C1-44 DET 17 YEL LOCK	Ph 6 Call & Ext T3-11 & 12 C1-77 DET 19 2 Sec QUEUE LOOP B	Ph 6 Call & Ext T5-3 & 4 C1-48 DET 20 2 Sec VOL RED LOCK QUEUE #2 LANE	Ph 7 Call & Ext T5-7 & 8 C1-57 DET 21 RED LOCK LOOP B	Ph 8 Call & Ext T5-11 & 12 C1-46 DET 23 YEL LOCK	Ph 8 Call & Ext T7-3 & 4 C1-79 DET 25 2 Sec QUEUE LOOP B	Ph 8 Call & Ext T7-7 & 8 C1-50 DET 26 2 Sec VOL RED LOCK QUEUE #2 LANE	Ph 7 Call & Ext T7-11 & 12 C1-61 DET 28 VOL LOOP C	NOT WIRED	NOT ASSIGNED C1-75	PH 6 & 8 EVC Preempt C1 - 73	PH 8 & 3 EVD Preempt C1 - 74	RAILROAD 2 C1-52
	SBLT	NB FAR	NB NEAR	NB NEAR	WBLT	EB FAR	EB NEAR	EB NEAR	WBLT			NB	EB	

COMMENTS:

222 Loop Amplifier
752 Discriminator
242 Isolator
232 Mag Amplifier

INTERSECTION: ALLUVIAL & CLOVIS

Group Assignment: **NONE**
Field Master Assignment: **NONE**
System Reference Number: **5**

N/S Street Name: **N. Clovis Avenue**
E/W Street Name: **Alluvial Avenue**

Last Database Change: **1/25/2019 10:37**

Change Record					
Change	By	Date	Change	By	Date

Notes: ***ALLUVIALand CLOVIS INT No. C0256***

INSTALLED BY T. Barker - January 25, 2019

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	1	<C/0+0+0>
Zone Number	1	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	204	<C/0+0+3>
QuicNet Channel	COM14:	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset		<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	1.0	<F/1+0+F>
All Red Start	6.0	<F/1+C+0>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

Row	Column Numbers ---->	Phase 1	2	3	4	5	6	7	8
	Phase Names ---->	NBL	SB	EBL	WB	SBL	NB	WBL	EB
0	Ped Walk	0	7	0	7	0	7	0	7
1	Ped FDW	0	24	0	27	0	24	0	29
2	Min Green	12	9	10	9	12	9	10	9
3	Type 3 Disconnect	0	22	0	22	0	22	0	22
4	Added per Vehicle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Veh Extension	2.0	3.0	2.0	3.2	2.0	3.3	2.0	2.4
6	Max Gap	2.0	4.1	2.0	4.1	2.0	4.3	2.0	2.7
7	Min Gap	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
8	Max Limit	23	31	15	31	13	31	15	31
9	Max Limit 2	3	22	5	25	3	22	5	27
A	Adv. / Delay Walk	0	0	0	0	0	0	0	0
B	PE Min Ped FDW	0	18	0	21	0	18	0	23
C	Cond Serv Check	0	0	0	0	0	0	0	0
D	Reduce Every	0.0	1.0	0.0	1.0	0.0	1.0	0.0	3.0
E	Yellow Change	3.0	4.7	3.0	4.7	3.0	4.7	3.0	4.7
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <C+0+F=1>

	9	A	B	C	D
	---	---	---	---	---
Phase 1	0	0	0	0	0.0
Phase 2	0	0	0	0	0.0
Phase 3	0	0	0	0	0.0
Phase 4	0	0	0	0	0.0
Phase 5	0	0	0	0	0.0
Phase 6	0	0	0	0	0.0
Phase 7	0	0	0	0	0.0
Phase 8	0	0	0	0	0.0

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing <C+0+F=1>

E	
RR-1 Delay	1
RR-1 Clear	0
EV-A Delay	0
EV-A Clear	1
EV-B Delay	0
EV-B Clear	1
EV-C Delay	0
EV-C Clear	1
EV-D Delay	0
EV-D Clear	1
RR-2 Delay	0
RR-2 Clear	0
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing

Row	F	
0	Permit	12345678
1	Red Lock	_____
2	Yellow Lock	_2_4_6_8
3	Min Recall	_____
4	Ped Recall	_____
5	*View Set Peds*	-----
6	Rest In Walk	_____
7	Red Rest	12345678
8	Dual Entry	_____
9	Max Recall	_____
A	Soft Recall	_____
B	Max 2	_____
C	Cond. Service	_____
D	Man Cntrl Calls	_____
E	Yellow Start	_____
F	First Phases	_2___6__

Phase Functions <C+0+F=1>

INTERSECTION: ALLUVIAL & CLOVIS

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number	0	0	0	0	0	0	0	0
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8									
9									
A									
B									
C									
D	Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F	Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Overlap Assignments <C+0+E=29>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = LMU Installed
3 = Disable Min Walk
4 = QuicNet/4 System
5 = Ignore P/P on EV
6 =
7 = Reserved
8 =

	C
EV-A	0
EV-B	0
EV-C	0
EV-D	0
RR-1 *	- - -
RR-2 *	- - -
SE-1	0
SE-2	0

Preempt Priority <C+0+E=125>
(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 3 5
F	IC Select (Interconnect)	2

Configuration <C+0+E=125>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	

Configuration <C+0+E=125>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	
Sequential Timing	12345678
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	12345678
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	2 4 6 8

Specials <C+0+F=2>

Flash to PE & PE Non-Lock
1 = EV A
2 = EV B
3 = EV C
4 = EV D
5 = RR 1
6 = RR 2
7 = SE 1
8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C+0+C=5>

INTERSECTION: ALLUVIAL & CLOVIS

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name ---->										
0	Cycle Length	100	100	100	100	100	100	100	100	100	0
1	Phase 1 - ForceOff	55	55	55	55	55	55	55	55	55	1
2	Phase 2 - ForceOff	0	0	0	0	0	0	0	0	0	2
3	Phase 3 - ForceOff	20	20	20	20	20	20	20	20	20	3
4	Phase 4 - ForceOff	40	40	40	40	40	40	40	40	40	4
5	Phase 5 - ForceOff	55	55	55	55	55	55	55	55	55	5
6	Phase 6 - ForceOff	0	0	0	0	0	0	0	0	0	6
7	Phase 7 - ForceOff	20	20	20	20	20	20	20	20	20	7
8	Phase 8 - ForceOff	40	40	40	40	40	40	40	40	40	8
9	Ring Offset	0	0	0	0	0	0	0	0	0	9
A	Offset 1	0	0	0	0	0	0	0	0	0	A
B	Offset 2	0	0	0	0	0	0	0	0	0	B
C	Offset 3	0	0	0	0	0	0	0	0	0	C
D	Perm 1 - End	15	15	15	15	15	15	15	15	15	D
E	Hold Release	255	255	255	255	255	255	255	255	255	E
F	Zone Offset	0	0	0	0	0	0	0	0	0	F

Coordination - Bank 1 <C+0+C=1>

Row		E	Row
			0
1	Plan 1 - Sync	_2___6__	1
2	Plan 2 - Sync	_2___6__	2
3	Plan 3 - Sync	_2___6__	3
4	Plan 4 - Sync	_2___6__	4
5	Plan 5 - Sync	_2___6__	5
6	Plan 6 - Sync	_2___6__	6
7	Plan 7 - Sync	_2___6__	7
8	Plan 8 - Sync	_2___6__	8
9	Plan 9 - Sync	_2___6__	9
A	NEMA Sync	_____	A
B	NEMA Hold	_____	B
C			C
D			D
E	Coord Extra	_____	E
F			F

Sync Phases <C+0+C=1>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment	0	0	0	0	0	0	0	0	0	0
1	Perm 2 - Start	0	0	0	0	0	0	0	0	0	1
2	Perm 2 - End	0	0	0	0	0	0	0	0	0	2
3	Perm 3 - Start	0	0	0	0	0	0	0	0	0	3
4	Perm 3 - End	0	0	0	0	0	0	0	0	0	4
5	Reservice Time	0	0	0	0	0	0	0	0	0	5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	A
B	Perm 1 Ped Phase	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C+0+C=2>

Row		F	Row
			0
1	Free Lag	_2_4_6_8	1
2	Plan 1 - Lag	_2_4_6_8	2
3	Plan 2 - Lag	_2_4_6_8	3
4	Plan 3 - Lag	_2_4_6_8	4
5	Plan 4 - Lag	_2_4_6_8	5
6	Plan 5 - Lag	_2_4_6_8	6
7	Plan 6 - Lag	_2_4_6_8	7
8	Plan 7 - Lag	_2_4_6_8	8
9	Plan 8 - Lag	_2_4_6_8	9
A	Plan 9 - Lag	_2_4_6_8	A
B	External Lag	_____	B
C			C
D			D
E			E
F			F

Lag Phases <C+0+C=1>

Row	Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Spec. Funct. 1	0	NOT-3	0	Max 2	61	Pretimed	0	Set Monday	0	Dial 2 (7-Wire)	0	Sim Term	0	0
1	Spec. Funct. 2	0	NOT-4	0	System Det 1	0	Plan 1	0	Ext. Perm 1	0	Dial 3 (7-Wire)	0	EV-A	71	1
2	Spec. Funct. 3	0	OR-4 (a)	0	System Det 2	0	Plan 2	0	Ext. Perm 2	0	Offset 1 (7-Wire)	0	EV-B	72	2
3	Spec. Funct. 4	0	OR-4 (b)	0	System Det 3	0	Plan 3	0	Reserved	0	Offset 2 (7-Wire)	0	EV-C	73	3
4	NAND-3 (a)	0	OR-5 (a)	0	System Det 4	0	Plan 4	0	Set Clock	0	Offset 3 (7-Wire)	0	EV-D	74	4
5	NAND-3 (b)	0	OR-5 (b)	0	System Det 5	0	Plan 5	0	Stop Time	82	Free (7-Wire)	0	RR-1	51	5
6	NAND-4 (a)	0	OR-6 (a)	0	System Det 6	0	Plan 6	0	Flash Sense	81	Flash (7-Wire)	0	RR-2	52	6
7	NAND-4 (b)	0	OR-6 (b)	0	System Det 7	0	Plan 7	0	Manual Enable	0	Excl. Ped Omit	0	Spec. Event 1	0	7
8	OR-7 (a)	0	Fig 3 Diamond	0	System Det 8	0	Plan 8	0	Man. Advance	0	NOT-1	0	Spec. Event 2	0	8
9	OR-7 (b)	0	Fig 4 Diamond	0	Max Inhibit (nema)	0	Plan 9	0	External Alarm	0	NOT-2	0	External Lag	0	9
A	OR-7 (c)	0	AND-4 (a)	0	Force A (nema)	0	DELAY-A	0	Phase Bank 2	0	OR-1 (a)	0	AND-1 (a)	0	A
B	OR-7 (d)	0	AND-4 (b)	0	Force B (nema)	0	DELAY-B	0	Phase Bank 3	0	OR-1 (b)	0	AND-1 (b)	0	B
C	OR-8 (a)	0	NAND-1 (a)	0	C.N.A. (nema)	0	DELAY-C	0	Overlap Set 2	0	OR-2 (a)	0	AND-2 (a)	0	C
D	OR-8 (b)	0	NAND-1 (b)	0	Hold (nema)	0	DELAY-D	0	Overlap Set 3	0	OR-2 (b)	0	AND-2 (b)	0	D
E	OR-8 (c)	0	NAND-2 (a)	0	Max Recall	0	DELAY-E	0	Detector Set 2	0	OR-3 (a)	0	AND-3 (a)	0	E
F	OR-8 (d)	0	NAND-2 (b)	0	Min Recall	0	DELAY-F	0	Detector Set 3	0	OR-3 (b)	0	AND-3 (b)	0	F

Assignable Inputs <C+0+E=126>

Row	Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Phase ON - 1	0	Preempt Fail	0	Flasher 0	0	Free	0	NOT-1	0	TOD Out 1	0	Dial 2 (7-Wire)	0	0
1	Phase ON - 2	0	Sp Evnt Out 1	0	Flasher 1	0	Plan 1	0	OR-1	0	TOD Out 2	0	Dial 3 (7-Wire)	0	1
2	Phase ON - 3	0	Sp Evnt Out 2	0	Fast Flasher	0	Plan 2	0	OR-2	0	TOD Out 3	0	Offset 1 (7-Wire)	0	2
3	Phase ON - 4	0	Sp Evnt Out 3	0	Fig 3 Diamond	0	Plan 3	0	OR-3	0	TOD Out 4	0	Offset 2 (7-Wire)	0	3
4	Phase ON - 5	0	Sp Evnt Out 4	0	Fig 4 Diamond	0	Plan 4	0	AND-1	0	TOD Out 5	0	Offset 3 (7-Wire)	0	4
5	Phase ON - 6	0	Sp Evnt Out 5	0			Plan 5	0	AND-2	0	TOD Out 6	0	Free (7-Wire)	0	5
6	Phase ON - 7	0	Sp Evnt Out 6	0			Plan 6	0	AND-3	0	TOD Out 7	0	Flash (7-Wire)	0	6
7	Phase ON - 8	0	Sp Evnt Out 7	0			Plan 7	0	NOT-2	0	TOD Out 8	0	Preempt	0	7
8	Ph. Check - 1	0	Sp Evnt Out 8	0	NOT-3	0	Plan 8	0	EV-A	0	Adv. Warn - 1	0	Low Priority A	0	8
9	Ph. Check - 2	0			NOT-4	0	Plan 9	0	EV-B	0	Adv. Warn - 2	0	Low Priority B	0	9
A	Ph. Check - 3	0	Detector Fail	0	OR-4	0	Spec. Funct. 3	0	EV-C	0	DELAY-A	0	Low Priority C	0	A
B	Ph. Check - 4	0	Spec. Funct. 1	0	OR-5	0	Spec. Funct. 4	0	EV-D	0	DELAY-B	0	Low Priority D	0	B
C	Ph. Check - 5	0	Spec. Funct. 2	0	OR-6	0	NAND-3	0	RR-1	0	DELAY-C	0			C
D	Ph. Check - 6	0	Central Control	0	AND-4	0	NAND-4	0	RR-2	0	DELAY-D	0			D
E	Ph. Check - 7	0	Excl. Ped DW	0	NAND-1	0	OR-7	0	Spec. Event 1	0	DELAY-E	0			E
F	Ph. Check - 8	0	Excl. Ped WK	0	NAND-2	0	OR-8	0	Spec. Event 2	0	DELAY-F	0			F

Assignable Outputs <C+0+E=127>

INTERSECTION: ALLUVIAL & CLOVIS

		Phase							
	Column Numbers ---->	1	2	3	4	5	6	7	8
Row	*Phase Names ---->*	NBL	SB	EBL	WB	SBL	NB	WBL	EB
0	Ped Walk	0	7	0	7	0	7	0	7
1	Ped FDW	0	15	0	15	0	15	0	15
2	Min Green	4	7	4	4	4	7	4	4
3	Type 3 Disconnect	0	20	0	20	0	20	0	20
4	Added per Vehicle	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
5	Veh Extension	2.0	4.0	2.0	2.5	2.0	4.0	2.0	2.5
6	Max Gap	3.0	6.0	3.0	3.0	3.0	6.0	3.0	3.0
7	Min Gap	0.5	2.0	0.5	1.5	0.5	2.0	0.5	1.5
8	Max Limit	20	30	20	25	20	30	20	25
9	Max Limit 2	30	50	30	40	30	50	30	40
A	Adv. / Delay Walk	0	0	0	0	0	0	0	0
B	PE Min Ped FDW	7	7	7	7	7	7	7	7
C	Cond Serv Check	10	10	10	10	10	10	10	10
D	Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	Yellow Change	3.0	4.0	3.0	3.0	3.0	4.0	3.0	3.0
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1	0	0	0	0	0.0
Phase 2	0	0	0	0	0.0
Phase 3	0	0	0	0	0.0
Phase 4	0	0	0	0	0.0
Phase 5	0	0	0	0	0.0
Phase 6	0	0	0	0	0.0
Phase 7	0	0	0	0	0.0
Phase 8	0	0	0	0	0.0

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Lag Hold Phases	_____	<C/5+1+A>

Coordinated Lag Hold Phases

Sync Output Time	0.0	<C/5+1+C>

7-Wire Master

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Long Failure	0.7	<F/1+0+6>
Short Failure	0.7	<F/1+0+7>

Power Cycle Correction (Default = 0.7)

Row		1	2	3	4	5	6	7	8
0	Ped Walk	0	7	0	7	0	7	0	7
1	Ped FDW	0	15	0	15	0	15	0	15
2	Min Green	4	7	4	4	4	7	4	4
3	Type 3 Disconnect	0	20	0	20	0	20	0	20
4	Added per Vehicle	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
5	Veh Extension	2.0	4.0	2.0	2.5	2.0	4.0	2.0	2.5
6	Max Gap	3.0	6.0	3.0	3.0	3.0	6.0	3.0	3.0
7	Min Gap	0.5	2.0	0.5	1.5	0.5	2.0	0.5	1.5
8	Max Limit	20	30	20	25	20	30	20	25
9	Max Limit 2	30	50	30	40	30	50	30	40
A	Adv. / Delay Walk	0	0	0	0	0	0	0	0
B	PE Min Ped FDW	7	7	7	7	7	7	7	7
C	Cond Serv Check	10	10	10	10	10	10	10	10
D	Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	Yellow Change	3.0	4.0	3.0	3.0	3.0	4.0	3.0	3.0
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1	0	0	0	0	0.0
Phase 2	0	0	0	0	0.0
Phase 3	0	0	0	0	0.0
Phase 4	0	0	0	0	0.0
Phase 5	0	0	0	0	0.0
Phase 6	0	0	0	0	0.0
Phase 7	0	0	0	0	0.0
Phase 8	0	0	0	0	0.0

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	39	45_7_	2	123	0.0	0.0
1	6J2U	40	45_7_	6	123 8	0.0	1.2
2	4I6U	41	45_7_	4	123 8	0.0	1.2
3	8J6U	42	45_7_	8	123 8	10.0	0.0
4	2I2L	43	45_7_	2	123	0.0	0.0
5	6J2L	44	45_7_	6	123 8	0.0	0.2
6	4I6L	45	45_7_	4	123 8	0.0	0.6
7	8J6L	46	45_7_	8	123 8	0.0	0.0
8	2I4U & L	47	67_	2	123 8	0.0	2.0
9	6J4U & L	48	67_	6	123 8	0.0	2.0
A	4I8U & L	49	67_	4	123 8	0.0	2.0
B	8J8U & L	50	67_	8	123 8	0.0	2.0
C	5J1U & L	55	45_7_	5	123 8	0.0	0.0
D	1I1U & L	56	45_7_	1	123 8	0.0	0.0
E	7J5U & L	57	45_7_	7	123 8	0.0	0.0
F	3I5U & L	58	45_7_	3	123 8	0.0	0.0

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	5J9U	59	45_7_	5	123	0.0	0.0
1	1I9U	60	45_7_	1	123 8	0.0	0.0
2	7J9L	61	45_7_		123	0.0	0.0
3	3I9L	62	45_7_	3	123	0.0	0.0
4	2I3U	63	45_7_	2	123 8	0.0	1.0
5	6J3U	64	67_	6	123 8	0.0	2.0
6	4I7U	65	45_7_	4	123 8	0.0	0.0
7	8J7U	66	45_7_	8	123 8	0.0	0.0
8	2 I 12 U	67	2	2	123	0.0	0.0
9	6 I 13 U	68	2	6	123	0.0	0.0
A	4 I 12 L	69	2	4	123	0.0	0.0
B	8 I 13 L	70	2	8	123	0.0	0.0
C	2I3L	76	45_7_	2	123 8	0.0	0.5
D	6J3L	77	45_7_	6	123 8	10.0	0.0
E	4I7L	78	45_7_	4	123 8	10.0	0.0
F	8J7L	79	45_7_	8	123 8	0.0	0.5

Detector Assignments <C+0+E=126> <C+0+D=0>

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 =
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	1
Phase Green	0	0	0	0	0	0	0	0	2
Phase Yellow	0	0	0	0	0	0	0	0	3
Phase Red	0	0	0	0	0	0	0	0	4
Overlap Green	0	0	0	0	0	0	0	0	5
Overlap Yellow	0	0	0	0	0	0	0	0	6
Overlap Red	0	0	0	0	0	0	0	0	7

Redirect Phase Outputs <C+0+E=127>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>

Detector Failure Monitor

	D	Row
		0
Output Port 1		1
Output Port 2		2
Output Port 3		3
Output Port 4		4
Output Port 5		5
Output Port 6		6
Output Port 7		7

Dimming <C+0+E=125>

	D
Number of Digits	0
1 st Digit	0
2 ed Digit	0
3 ed Digit	0
4 th Digit	0
5 th Digit	0
6 th Digit	0
7 th Digit	0
8 th Digit	0
9 th Digit	0
10 th Digit	0
11 th Digit	0
12 th Digit	0
13 th Digit	0
14 th Digit	0
15 th Digit	0

<C+0+C=5>

Dial-Back Telephone Number

Disable Alarms
1 = Stop Time
2 = Flash Sense
3 = Keyboard Entry
4 = Manual Plan
5 = Police Control
6 = External Alarm
7 = Detector Failure
8 =

	B	Row
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<C+0+D=0> (seconds)

Omit Alarm		<C/5+F+0>

Disable Alarm Reporting

Time	10	<C/5+C+0>

Redial Time (minutes)
(View Redial Timer at E/2+D+6)

INTERSECTION: ALLUVIAL & CLOVIS

Row	Time	Plan	Offset	Day of Week
0	00 : 00	0	0	
1	00 : 00	0	0	
2	00 : 00	0	0	
3	00 : 00	0	0	
4	00 : 00	0	0	
5	00 : 00	0	0	
6	00 : 00	0	0	
7	00 : 00	0	0	
8	00 : 00	0	0	
9	00 : 00	0	0	
A	00 : 00	0	0	
B	00 : 00	0	0	
C	00 : 00	0	0	
D	00 : 00	0	0	
E	00 : 00	0	0	
F	00 : 00	0	0	

TOD Coordination <C+0+9=0.1>
(Bank 1)

Time	Funct.	Day of Week	Column 4 Phases/Bits
18 : 00	3	1234567	3 8
20 : 00	3	1234567	
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
16 : 30	E	1234567	78

TOD Function <C+0+7=0.1> <C+0+E=27>

Day	Year	Month	Holiday Type
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	

Holiday Dates <C+0+8=1.1>
(Bank 1)

Time	Plan	Offset	Holiday Type
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	

Holiday Events <C+0+9=1.1>
(Bank 1)

T.O.D. Functions
0 =
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Month Select
1 = January
2 = February
3 = March
4 = April
5 = May
6 = June
7 = July
8 = August
9 = September
A = October
B = November
C = December

Row	Time	Plan	Offset	Day of Week
0	00 : 00	0	0	
1	00 : 00	0	0	
2	00 : 00	0	0	
3	00 : 00	0	0	
4	00 : 00	0	0	
5	00 : 00	0	0	
6	00 : 00	0	0	
7	00 : 00	0	0	
8	00 : 00	0	0	
9	00 : 00	0	0	
A	00 : 00	0	0	
B	00 : 00	0	0	
C	00 : 00	0	0	
D	00 : 00	0	0	
E	00 : 00	0	0	
F	00 : 00	0	0	

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type	Column 4 Phases/Bits
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		
00 : 00	0		

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	
00	00	0	

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	
00 : 00	0	0	

Holiday Events <C+0+9=1.2>
(Bank 2)

INTERSECTION: ALLUVIAL & CLOVIS

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0		0								
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8		0								
9		0								
A		0								
B		0								
C		0								
D		0								
E		0								
F		0								

Notes:

0 <E/27+5+F>
Limited Service Interval

Special Event Schedule -- Table 1 <C+0+E=27>

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0		0								
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8		0								
9		0								
A		0								
B		0								
C		0								
D		0								
E		0								
F		0								

Notes:

0 <E/28+5+F>
Limited Service Interval

Special Event Schedule -- Table 2 <C+0+E=28>

Min Time (seconds) | 4 | <F/1+0+8>

Min Green Before PE Force Off

Max Time (minutes) | 1 | <F/1+0+9>

Max Preempt Time Before Failure

Min Time (seconds) | 0 | <F/1+0+A>

Min Time Between Same Preempts

(Does Not Apply To Railroad Preempt)

Low Pri. Channel | _____ | <E/125+C+8>

Disable Low Priority Channel

Low Priority
1 = Channel A
2 = Channel B
3 = Channel C
4 = Channel D

Delay Time (seconds) | 0 | <F/1+A+D>

Bus Delay

Max Time (seconds) | 0 | <F/1+A+E>

Max Early Green

Max Time (seconds) | 0 | <F/1+A+F>

Max Green Extension

Row	Time	Headway	Direction	Day of Week
0	00 : 00	0	0	_____
1	00 : 00	0	0	_____
2	00 : 00	0	0	_____
3	00 : 00	0	0	_____
4	00 : 00	0	0	_____
5	00 : 00	0	0	_____
6	00 : 00	0	0	_____
7	00 : 00	0	0	_____
8	00 : 00	0	0	_____
9	00 : 00	0	0	_____
A	00 : 00	0	0	_____
B	00 : 00	0	0	_____
C	00 : 00	0	0	_____
D	00 : 00	0	0	_____
E	00 : 00	0	0	_____
F	00 : 00	0	0	_____

Headway <C+0+9=2.1>

Headway Time
(minutes)
1 thru 9 = 1 thru 9
A = 10
B = 11
C = 12
D = 13
E = 14
F = 15

Low Priority Preemption (Bus Priority)

Only available with *Program 233RV2.B* (and above)

Note: Also see "Time of Day Functions", Function E, Bit 5 (Disable Low Priority)

ID NUMBER: 0256

LOCATION: ALLUVIAL AVENUE and N. CLOVIS AVENUE

T. Barker
1/24/2018

CITY OF CLOVIS
332 CABINET
28 DETECTOR SETUP

	DETECTOR ASSIGNMENTS											ISOLATORS		
	NBLT		SB INT	SB NEAR	EBLT	WB INT	WB BIKE	WB NEAR	NBLT			SB	NB	
I	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	**Ph 1** Call & Ext T2-1 & 2 C1-56 DET 1 Loop 1	**Ph 2** Call & Ext T2-5 & 6 C1-39 DET 2	**Ph 2** Call & Ext T2-9 & 10 C1-63 DET 4 1.0	**Ph 2** Call & Ext T4-1 & 2 C1-47 DET 6 2.0 LANE 1 & 2	**Ph 3** Call & Ext T4-5 & 6 C1-58 DET 7	**Ph 4** Call & Ext T4-9 & 10 C1-41 DET 8 1.2	**Ph 4** Call & Ext T6-1 & 2 C1-65 DET 10	**Ph 4** Call & Ext T6-5 & 6 C1-49 DET 12 2.0 Loop 1	**Ph 1** Call & Ext T6-9 & 10 C1-60 DET 13 Loop 3	NOT WIRED	NOT ASSIGNED C1-80	**Ph 2** PED CALL C1-67	**Ph 6** PED CALL C1-68	**FLASH** **SENSE** C1-81
LOWER	**Ph 1** Call & Ext T2-3 & 4 C1-56 DET 1 Loop 2	**Ph 2** Call & Ext T2-7 & 8 C1-43 DET 3	**Ph 2** Call & Ext T2-11 & 12 C1-76 DET 5 0.5	**Ph 2** Call & Ext T4-3 & 4 C1-47 DET 6	**Ph 3** Call & Ext T4-7 & 8 C1-58 DET 7	**Ph 4** Call & Ext T4-11 & 12 C1-45 DET 9 0.6	**Ph 4** Call & Ext T6-3 & 4 C1-78 DET 11 10 Delay	**Ph 4** Call & Ext T6-7 & 8 C1-49 DET 12 2.0 Loop 2	**Ph 3** Call & Ext T6- 11 & 12 C1-62 DET 14	NOT WIRED	NOT ASSIGNED C1-53	**Ph 4** PED CALL C1-69	**Ph 8** PED CALL C1-70	**STOP** **TIME** C1-82
	NBLT		SB FAR			WB FAR	WBRT	WB NEAR				WB	EB	

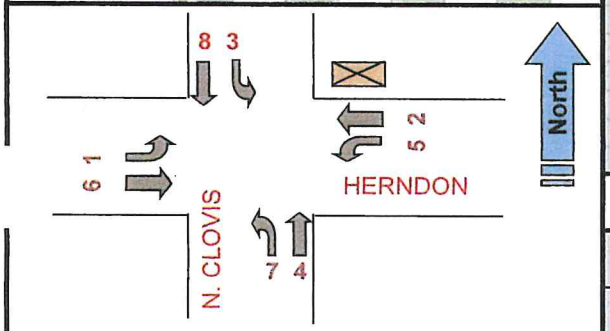
	SBLT	NB INT	NB NEAR	NB NEAR	WBLT	EBRT	EB INT	EB NEAR				SB	WB	UPS
J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	**Ph 5** Call & Ext T3-1 & 2 C1-55 DET 15	**Ph 6** Call & Ext T3-5 & 6 C1-40 DET 16 1.2	**Ph 6** Call & Ext T3-9 & 10 C1-64 DET 18 2.0 Back loops	**Ph 6** Call & Ext T5-1 & 2 C1-48 DET 20 2.0 Front Lane 1	**Ph 7** Call & Ext T5-5 & 6 C1-57 DET 21 Loop 1	**Ph 8** Call & Ext T5- 9 & 10 C1-42 DET 22 10 Delay	**Ph 8** Call & Ext T7-1 & 2 C1-66 DET 24	**Ph 8** Call & Ext T7- 5 & 6 C1-50 DET 26 2.0 LANE #1	**Ph 5** Call & Ext T7- 9 & 10 C1-59 DET 27	NOT WIRED	NOT ASSIGNED C1-54	**PH 2 & 5** **EVA** **Preempt** C1 - 71	**PH 4 & 7** **EVB** **Preempt** C1 - 72	**LOW** **BATT** **RAILROAD** **1** C1-51
LOWER	**Ph 5** Call & Ext T3-3 & 4 C1-55 DET 15	**Ph 6** Call & Ext T3-7 & 8 C1-44 DET 17 0.2	**Ph 6** Call & Ext T3-11 & 12 C1-77 DET 19 10 Delay	**Ph 6** Call & Ext T5-3 & 4 C1-48 DET 20 2.0 Front Lane 2	**Ph 7** Call & Ext T5-7 & 8 C1-57 DET 21 Loops 2 & 3	**Ph 8** Call & Ext T5-11 & 12 C1-46 DET 23	**Ph 8** Call & Ext T7- 3 & 4 C1-79 DET 25 0.5	**Ph 8** Call & Ext T7- 7 & 8 C1-50 DET 26	**Ph 7** Call & Ext T7-11 & 12 C1-61 DET 28	NOT WIRED	NOT ASSIGNED C1-75	**PH 6 & 1** **EVC** **Preempt** C1 - 73	**PH 8 & 3** **EVD** **Preempt** C1 - 74	**RAILROAD** **2** C1-52
		NB FAR	NBRT	NB NEAR	WBLT	EB BIKE	EB FAR		FOG			NB	EB	

COMMENTS:

222 Loop Amplifier
752 Discriminator
242 Isolator
232 Mag Amplifier

AGENDA ITEM NO. 3.

Movement	EL	WT	SL	NT	WL	ET	NL	ST
Times [1.1.1]	1	2	3	4	5	6	7	8
Min Green	13	10	14	12	13	10	14	12
Gap, Ext	2	2.6	2	1.9	2	3	2	3.3
Max 1	30	40	35	40	30	40	35	40
Max 2	0		0			0		0
Yel Clearance	3	5	3	4.7	3	5	3	4.7
Red Clearance	2	1	2	1	2	1	2	1
Walk	0	7	0	7		7		0
Ped Clearance	0	31	0	31		25		0
Red Revert	1	1	1	1	1	1	1	1
Add Initial	0		0			0		0
Max Initial	0		0			0		0
Time B4 Reduct	0	20	0	24		20		24
Cars B4 Reduct	0		0			0		0
Time To Reduce	0	10	0	8		10		8
Reduce By	0		0			0		0
Min Gap	2	1.4	2	1.1	2	1.8	2	2.1
DyMaxLim	36	46	0	46	36	46	36	46
Max Step	6	6	0	6	6	6	6	6
Options [1.1.2]	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		X				X		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		X		X		X		X
Enable Simul Gap	X	X	X	X	X	X	X	X
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
SkipRed-NoCall								
Red Rest								
Max II								
*Max III								
Max Inhibit								
Ped Delay								
Red Rest on Gap								
Conflicting Phase	0	0	0	0	0	0	0	0
Grn/Ped Delay								
Omit Yel, Yel P	0	0	0	0	0	0	0	0
Ped Out/Olp Ped								
StartYel, Next P	0	0	0	0	0	0	0	0
*StartupVehCall	1	2	3	4	5	6	7	8
*StartupPedCall								

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases			
1	1	RED	5	6	0	0
2	1	GREEN	5	6	0	0
3	1	RED	7	8	0	0
4	1	RED	7	8	0	0
5	2	RED	1	2	0	0
6	2	GREEN	1	2	0	0
7	2	RED	3	4	0	0
8	2	RED	3	4	0	0
9	0	RED	0	0	0	0
10	0	RED	0	0	0	0
11	0	RED	0	0	0	0
12	0	RED	0	0	0	0

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	OFF		
TS2CVM	NONE		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

Screen Size	8	Metric	OFF
Startup Flash	0	Red Revert	1
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	RSt	Display Time	30
Yellow < 3"	OFF	Tone Disable	OFF
Allow Skip Yel	OFF	AudioPedTime	OFF
Start Red Tm	6	Phase Mode	STD8
*Startup Calls	UsePrg	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	USER
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	OFF
*InhFYA Red St	Off	*SecurityDelay	0

* - 76.12B or newer

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Comm [6.2]

Port	Baud Rate	FCM
1	9600	6
2	9600	6
3	1200	0
4	1200	0

Comm [6.5]

					Host IPs			
IP Address:	10	128	1	39	ATMS			
Mask:	255	255	255	0	172	26	17	230
Gateway:	10	128	1	254	SG			
Port #:	5039				0	0	0	0

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4	0	0
	2	6	5	7	8		0
5	1	1	2	3	4	0	0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3	0	0
	2	5	6	8	7		0
14	1	1	2	4	3		0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: CLOVIS @ HERNDON **ID:** C 0255 **Configuration:** Standard File

V76.07d
ATMS 1.5.45.263

Prepared by:	Tim Baker	Date Installed / By:	6-4-2021
Checked by:		Date Superseded:	

Date Printed: 6/4/21

[2.1] Coord Modes+

Test OpMode	0
Correction	LONG
Maximum	MAX INH
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	ON
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	P3478_INH
Expand Splt	OFF
Easy Float	OFF
Auto Reset	ON
NTCIP Yield +	0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: CLOVIS @ HERNDON

ID: C 0255

Date Printed: 6/4/2021

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
1	130	0	1	3
2	0	0	0	1
3	132	80	3	3
4	0	0	4	1
5	0	0	0	1
6	0	0	0	1
7		0	0	1
8	0	0	0	1
9	0	0	0	1
10	0	0	0	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8
1	Split	19	47	19	45	18	48	20	44
	Crd-P						X		
	Mode	NON	MAX	NON	NON	NON	MAX	NON	NON
2	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	24	44	19	45	24	44	28	36
	Crd-P						X		
	Mode	NON	MAX	NON	NON	NON	MAX	NON	NON
4	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ret Hold	Flt	Veh	Ped	FRC MODE
1	10	17	0	4	3	5	7	10	EndGRN	-	-	-	-	
2	0	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
3	10	17	0	2	3	5	7	10	EndGRN	-	-	-	-	
4	5	17	0	1	3	5	7	10	EndGRN	-	-	-	-	
5		17	0	0	0	0	0	0	EndGRN	-	-	-	-	
6	0	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
7		17	0	0	0	0	0	0	EndGRN	-	-	-	-	
8	0	17	0	0	0	0	0	0	EndGRN	-	-	-	-	
9		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
10	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
31	0	17	0	0	0	0	0	0	BegGRN	-	-	-	-	
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

1 A	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
2 B	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
3 C	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
4 D	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
5 E	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
6 F	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
7 G	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
8 H	Included Ø	NORMAL	
	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	EXT
Max Seek Track Time	0
Max Seek Dwell Time	0

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.Pre #.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	ON	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	EMERG	TS2	0	OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2	0	OFF	OFF	OFF	MAX

Preemption Times [3.#.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2	0	0	0	0	0	0	0	0
3			60		4	26		
4	0	0	60	0	4	24	0	0
5			60		4	20		
6	0	0	60	0	0	0	0	0

Preemption, Options [3.#.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt#	Flash Dwell	Link
1	ON	ON	OFF	ON	
2	OFF	ON	OFF	OFF	0
3	OFF	OFF	OFF	OFF	
4	OFF	OFF	OFF	OFF	0
5	OFF	OFF	OFF	OFF	
6	OFF	OFF	OFF	OFF	0

Preemption, Times+ [3.#.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2	0	0	0	0	0
3					
4	0	0	0	0	0
5					
6	0	0	0	0	0

Pre 1 = RR1
Pre 2 = RR2
Pre 3 = EVA
Pre 4 = EVB
Pre 5 = EVC
Pre 6 = EVD

Low Priority Preempts [3.X; where X = 7 thru 10]

Pre #	Enb	C+P	Lock	NoSkip	Qjump	Times: Alt Tbl	Min	Max	Lock	Priorty Phases			
7	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
8	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
9	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
10	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	OFF
Xtra Incl Phases	OFF
InhibitLockInterval	Always

Phases [3.#.2] - set the Dwell Phases

Pre #	Column	1	2	3	4	5	6	7	8	9	10
1	Dwell Veh										
	Peds										
2	Dwell Veh										
	Peds										
3	Dwell Veh	2	5								
	Peds										
4	Dwell Veh	4	7								
	Peds										
5	Dwell Veh	1	6								
	Peds										
6	Dwell Veh	3	8								
	Peds										

Phases [3.#.2] - Trk Veh

Pre #	Phases			
1				
2	0	0	0	0
3				
4	0	0	0	0
5				
6	0	0	0	0

Exit Phases [3.#.2]

No.	Exit Phase			
1				
2	0	0	0	0
3				
4	0	0	0	0
5				
6	0	0	0	0

Overlaps+ [3.#.5]

Pre #		Preempt Overlaps +									
1	Track										
	Dwell										
2	Track										
	Dwell										
3	Track										
	Dwell										
4	Track										
	Dwell										
5	Track										
	Dwell										
6	Track										
	Dwell										

Advance Times [3.x.8]

	1	2	3	4	5	6
YelChng	0	0	0	0	0	0
RedClr	0	0	0	0	0	0
TrkYelChng	0	0	0	0	0	0
TrkRedClr	0	0	0	0	0	0

PREEMPTION NOTE: Each preemption has it's own set of menus. To access each menu :
a. Press "3" for preemption
b. Then enter "Preempt number" (1 through 6 and shown as "#" in Schedules above)
c. Then enter "number of Menu item" you want to access (*1-Times, 2-Phases, 3-Options, 4-Times+, 5-Overlaps+ or 6-Options+*)
d. Once in an above menu push Escape once to go back to main preempton menu.

Name: CLOVIS @ HERNDON

ID: C 0255 **Date Printed:** 6/4/2021

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz		X		X		X		X								
	Page 1								Page 2							

Chan Settings [1.8.2]

17	18	19	20	21	22	23	24
1	3	5	7				
PED	PED	PED	PED	VEH	VEH	VEH	VEH
DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	USER

CHANNELS+ [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	USER
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

I/O LOGIC [1.8.7]

Row#	Result		Function			OP	Function			OP	Function			OP	Timer	
	I/O	Fcn	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Dly	Sec
1	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
2	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
3	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
4	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
5	I	0	-	I	----	0	-	I	---	0	-	I	----	0	DLY	0
6	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
7	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
8	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
9	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
10	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	5	0
3	0	0	0	0
4	4	0	5	0
5	0	0	0	0
6	6	0	5	0
7	0	0	0	0
8	0	0	0	0

Page 4

Date Printed: 6/4/2021

ID: C 0255

AGENDA ITEM NO. 3.

Veh Par 1-32 [5.1]

Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1I1U	1					0	0	0	2
2	2I2U	2	0	10	0	0	0	0	0	2
3	2I2L	2	0	0	0	0	0	0	0	2
4	2I3U	2	0	0	0.9		0	0	0	2
5	2I3L	2	0	0	2.6		0	0	0	2
6	2I4U	2	0	0	2	0	0	0	0	2
7	3I5U	3					0	0	0	2
8	4I6U	4	0	0	0	0	0	0	0	2
9	4I6L	4	0	0	0		0	0	0	2
10	4I7U	4	0	0	0.5		0	0	0	2
11	4I7L	4			3.2		0	0	0	2
12	4I8U	4			2		0	0	0	2
13	1I9U	1	0	0	0	0	0	0	0	2
14	3I9L	3	0	0	0	0	0	0	0	2
15	5J1U	5	0	0	0	0	0	0	0	2
16	6J2U	6		10			0	0	0	2
17	6J2L	6					0	0	0	2
18	6J3U	6			1.1		0	0	0	2
19	6J3L	6			0.9		0	0	0	2
20	6J4U	6			2		0	0	0	2
21	7J5U	7					0	0	0	2
22	8J6U	8	0	10	0	0	0	0	0	2
23	8J6L	8	0	10	0		0	0	0	2
24	8J7U	8	0	0	1.2		0	0	0	2
25	8J7L	8	0	0	1		0	0	0	2
26	8J8U	8	0	0	2		0	0	0	2
27	5J9U	5					0	0	0	2
28	7J9L	7					0	0	0	2
29	2I11U	0	0	0	0	0	0	0	0	0
30	4I11L	0	0	0	0	0	0	0	0	0
31	6J11U						0	0	0	0
32	8J11L						0	0	0	0
33	1I1L	0	0	0	0	0	0	0	0	0
34	2I4L						0	0	0	0
35	3I5L	0	0	0	0	0	0	0	0	0
36	4I8L						0	0	0	0
37	5J1L	0	0	0	0	0	0	0	0	0
38	6J4L						0	0	0	0
39	7J5L	0	0	0	0	0	0	0	0	0
40	8J8L						0	0	0	0
41	4I10U						0	0	0	0
42	4I10L						0	0	0	0
43	8J10U						0	0	0	0
44	8J10L						0	0	0	0

Vehicle Options 1-32 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	X	X	-	-	-	-	-	X
2	X	X	-	-	-	-	-	X
3	X	X	-	-	-	-	-	X
4	X	X	-	-	-	-	-	X
5	X	X	-	-	-	-	-	X
6	X	-	X	-	-	-	-	X
7	X	X	-	-	-	-	-	X
8	X	X	-	-	-	-	-	X
9	X	X	-	-	-	-	-	X
10	-	X	-	-	-	-	-	X
11	-	X	-	-	-	-	-	X
12	X	-	X	-	-	-	-	X
13	X	X	-	-	-	-	-	X
14	X	X	-	-	-	-	-	X
15	X	X	-	-	-	-	-	X
16	X	X	-	-	-	-	-	X
17	X	X	-	-	-	-	-	X
18	X	X	-	-	-	-	-	X
19	X	X	-	-	-	-	-	X
20	X	-	X	-	-	-	-	X
21	X	X	-	-	-	-	-	X
22	X	X	-	-	-	-	-	X
23	X	X	-	-	-	-	-	X
24	-	X	-	-	-	-	-	X
25	-	X	-	-	-	-	-	X
26	X	-	X	-	-	-	-	X
27	X	X	-	-	-	-	-	X
28	X	X	-	-	-	-	-	X
29	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-

Parameters+ 1-32 [5.3]

Det #	Occupancy G	Occupancy Y	Occupancy R	Delay 1	Delay 2	Type	Sl	Dir	Type	#
1	-	-	-			NORM		EBLT1&2	Loop	1
2	-	-	-	0	0	NORM	0	WBRT	Loop	2
3	-	-	-	0	0	NORM	0	Not Used		3
4	-	-	-	0	0	NORM	0	WB INT	Loop	4
5	-	-	-	0	0	NORM	0	WB FAR	Loop	5
6	-	-	-	0	0	NORM	0	WB NEAR	Loop	6
7	-	-	-			NORM		SBLT1&2	Loop	7
8	-	-	-	0	0	NORM	0	Not Used		8
9	-	-	-	0	0	NORM	0	Not Used		9
10	-	-	-	0	0	NORM	0	NB INT	Mag	10
11	-	-	-			NORM		NB FAR	Mag	11
12	-	-	-			NORM		NB NEAR	Loop	12
13	-	-	-			NORM	0	Not Used		
14	-	-	-			NORM	0	SBLT BACk	Loop	14
15	-	-	-	0	0	NORM	0	WBLT1&2	Loop	15
16	-	-	-			NORM		EBRT	Loop	16
17	-	-	-			NORM		Not Used		17
18	-	-	-			NORM		EB INT	Mag	18
19	-	-	-			NORM		EB FAR	Mag	19
20	-	-	-			NORM		EB NEAR	Loop	20
21	-	-	-			NORM		NBLT1&2	Loop	21
22	-	-	-	0	0	NORM	0	SBRT #1	Loop	22
23	-	-	-	0	0	NORM	0	SBRT #2	Loop	23
24	-	-	-	0	0	NORM	0	SB INT	Mag	24
25	-	-	-	0	0	NORM	0	SB FAR	Mag	25
26	-	-	-	0	0	NORM	0	SB NEAR	Loop	26
27	-	-	-			NORM		Not Used		27
28	-	-	-			NORM		Not Used		28
29	-	-	-	0	0	NORM	0			29
30	-	-	-	0	0	NORM	0			30
31	-	-	-			NORM				31
32	-	-	-			NORM				32
33	-	-	-	0	0	NORM	0			33
34	-	-	-			NORM				34
35	-	-	-	0	0	NORM	0			35
36	-	-	-			NORM				36
37	-	-	-	0	0	NORM	0			37
38	-	-	-			NORM				38
39	-	-	-	0	0	NORM	0			39
40	-	-	-			NORM				40
41	-	-	-			NORM				41
42	-	-	-			NORM				42
43	-	-	-			NORM				43
44	-	-	-			NORM				44

ID: C 0255 **Name:** CLOVIS @ HERNDON

Vol/Occ Period 0 Seconds / 5 Minutes

6/4/2021

1708

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Min Grn		0		0		0		0
Gap, Ext		0		0		0		0
Max 1		0		0		0		0
Max 2		0		0		0		0
Yel Clr		0		0		0		0
Red Clr		0		0		0		0
Walk		0		0		0		0
Ped Clr		0		0		0		0

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Min Grn		0		0		0		0
Gap, Ext		0		0		0		0
Max 1		0		0		0		0
Max 2		0		0		0		0
Yel Clr		0		0		0		0
Red Clr		0		0		0		0
Walk		0		0		0		0
Ped Clr		0		0		0		0

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Min Grn		0		0		0		0
Gap, Ext		0		0		0		0
Max 1		0		0		0		0
Max 2		0		0		0		0
Yel Clr		0		0		0		0
Red Clr		0		0		0		0
Walk		0		0		0		0
Ped Clr		0		0		0		0

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø		0		0		0		0
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	X	X	X	X	X	X	X	X
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1		0		0		0		0
Conflicting Ø2		0		0		0		0

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8	A		
1	0		0	0		0	Off	DFT
2						0	Off	DFT
3	0	0	0	0		0	Off	DFT
4	4					0	Off	DFT
5	0	0	0	0		0	Off	DFT
6						0	Off	DFT
7	0	0	0	0		0	Off	DFT
8						0	Off	DFT
9	0	0	0	0		0	Off	DFT
10						0	Off	DFT
11	0	0	0	0		0	Off	DFT
12						0	Off	DFT
13	0	0	0	0		0	Off	DFT
14						0	Off	DFT
15	0	0	0	0		0	Off	DFT
16						0	Off	DFT
17	0	0	0	0		0	Off	DFT
18						0	Off	DFT
19	0	0	0	0		0	Off	DFT
20						0	Off	DFT
21	0	0	0	0		0	Off	DFT
22						0	Off	DFT
23	0	0	0	0		0	Off	DFT
24						0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	DISABLE	
Time Base Sync Ref	0	
GMT Offset	+	0
Daylight Savings	**Mon**	**Week**
Spring	3	2
Fall	11	1

NAME: CLOVIS @ HERNDON

6/4/2021 **ID:** C 0255

AGENDA ITEM NO. 3.

Annual Schedule [4.3]

| | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | |

#	Alarm	Ev	Alr
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	-	-
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	-	-
17	Cycle Fault	X	X
18	Cycle Failure	X	X
19	Coordination Fault	X	X
20	Controller Fault	X	X
21	Detector SDLC Fault	-	-
22	MMU SDLC Fault	-	-
23	Critical SDLC Fault	-	-
24	SDLC Res. Frame Fault	-	-
25	EEPROM CRC Fault	X	X
26	Detector Diagnostic Fault	-	-
27	Detector Fault from SDLC	-	-
28	Queue detector alarm	-	-
29	Ped Fault	-	-
30	Coord Diagnostic Fault	X	X
37	Download Request	X	X
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	-	-
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	-	-
60	Coordination Failure	X	X
73	Controller Access	X	X
81	FIO Changed Status	X	X

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alarm Parameters [1.6.7.1]

Pattern Events:	ON
Local Txmt Alarms:	OFF
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Preempt Events:	ON

Date Printed
6/4/2021

ID: C 0255 **Name:** CLOVIS @ HERNDON

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	181	ManCntrlEnbl
54	I2-8	189	Unused
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	189	Unused
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	178	Int Advance
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPU 1.8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Function	Output Name
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5
C-11 OUTPUTS

1	O8-1	115	Not Used
2	O8-2	115	Not Used
3	O8-3	115	Not Used
4	O8-4	115	Not Used

I/O Inputs - 1.8.9.1.5
C-11 INPUTS

15	I7-1	192	Alarm 1
16	I7-2	193	Alarm 2
17	I7-3	194	Alarm 3
18	I7-4	195	Alarm 4
19	I7-5	196	Alarm 5
20	I7-6	197	Alarm 6
21	I7-7	189	Unused
22	I7-8	189	Unused
23	I8-1	189	Unused
24	I8-2	189	Unused
25	I8-3	189	Unused
26	I8-4	189	Unused
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

ID: C 0255

NAME: CLOVIS @ HERNDON

Date Printed: 6/4/2021

ID NUMBER: C 0255
LOCATION: CLOVIS and HERNDON

T. Barker
6/1/2021

CITY OF CLOVIS
332 CABINET
28 DETECTOR SETUP

DETECTOR ASSIGNMENTS

												ISOLATORS		
	EBLT	WBRT	WB INT	WB NEAR	SBLT		NB INT	NB NEAR				NORTH LEG	SOUTH LEG	
I	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call & Ext T2-1 & 2 C1-56 DET 1 #1 Lane	Ph 2 Call & Ext T2-5 & 6 C1-39 DET 2 10 DEL	Ph 2 Call & Ext T2-9 & 10 C1-63 DET 4 0.9	Ph 2 Call & Que T4-1 & 2 C1-47 DET 6 2.0 #1 & #2	Ph 3 Call & Ext T4-5 & 6 C1-58 DET 7 #1 Lane	Ph 4 Call & Ext T4-9 & 10 C1-41 DET 8	Ph 4 Ext T6-1 & 2 C1-65 DET 10 0.5 #1 Lane	Ph 4 Call & Que T6-5 & 6 C1-49 DET 12 2.0 #1 & #2	Ph 1 Call & Ext T6-9 & 10 C1-60 DET 13	NOT WIRED	NOT ASSIGNED C1-80	Ph 2 PED CALL C1-67	Ph 6 PED CALL C1-68	FLASH SENSE C1-81
LOWER	Ph 1 Call & Ext T2-3 & 4 C1-56 DET 1 #2 Lane	Ph 2 Call & Ext T2-7 & 8 C1-43 DET 3	Ph 2 Call & Ext T2-11 & 12 C1-76 DET 5 2.6	Ph 2 Call & Que T4-3 & 4 C1-47 DET 6 2.0 #3 Lane	Ph 3 Call & Ext T4-7 & 8 C1-58 DET 7 #2 Lane	Ph 4 Call & Ext T4-11 & 12 C1-45 DET 9	Ph 4 Ext T6-3 & 4 C1-78 DET 11 3.2 #2 Lane	Ph 4 Call & Que T6-7 & 8 C1-49 DET 12 2.0 #3 Lane	Ph 3 Call & Ext T6- 11 & 12 C1-62 DET 14 "B" & "C" BACK LOOPS	NOT WIRED	NOT ASSIGNED C1-53	Ph 4 PED CALL C1-69	Ph 8 PED CALL C1-70	STOP TIME C1-82
	EBLT		WB FAR	WB NEAR	SBLT		NB FAR	NB NEAR	SBLT			EAST LEG		

	WBLT	EBRT	EB INT	EB NEAR	NBLT	SBRT	SB INT	SB NEAR				WB	NB	
J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call & Ext T3-1 & 2 C1-55 DET 15 #1 Lane	Ph 6 Call & Ext T3-5 & 6 C1-40 DET 16 10 DEL	Ph 6 Call & Ext T3-9 & 10 C1-64 DET 18 1.1	Ph 6 Call & Que T5-1 & 2 C1-48 DET 20 2.0 #1 & #2	Ph 7 Call & Ext T5-5 & 6 C1-57 DET 21 #1 Lane	Ph 8 Call & Ext T5- 9 & 10 C1-42 DET 22 10 DEL #1 Lane	Ph 8 Ext T7-1 & 2 C1-66 DET 24 1.2	Ph 8 Call & Que T7- 5 & 6 C1-50 DET 26 2.0 #1 & #2	Ph 5 Call & Ext T7- 9 & 10 C1-59 DET 27	NOT WIRED	NOT ASSIGNED C1-54	PH 2 & 5 EVA Preempt C1 - 71 PRE 3	PH 4 & 7 EVB Preempt C1 - 72 PRE 4	LOW BATT RAILROAD 1 C1-51
LOWER	Ph 5 Call & Ext T3-3 & 4 C1-55 DET 15 #2 Lane	Ph 6 Call & Ext T3-7 & 8 C1-44 DET 17	Ph 6 Call & Ext T3-11 & 12 C1-77 DET 19 0.9	Ph 6 Call & Que T5-3 & 4 C1-48 DET 20 2.0 #3 Lane	Ph 7 Call & Ext T5-7 & 8 C1-57 DET 21 #2 Lane	Ph 8 Call & Ext T5-11 & 12 C1-46 DET 23 10 DEL #2 Lane	Ph 8 Ext T7- 3 & 4 C1-79 DET 25 1.0	Ph 8 Call & Que T7- 7 & 8 C1-50 DET 26 2.0 #3 Lane	Ph 7 Call & Ext T7-11 & 12 C1-61 DET 28	NOT WIRED	NOT ASSIGNED C1-75	PH 6 & 1 EVC Preempt C1 - 73 PRE 5	PH 8 & 3 EVD Preempt C1 - 74 PRE 6	RAILROAD 2 C1-52
	WBLT		EB FAR	EB NEAR	NBLT	SBRT	SB FAR	SB NEAR				EB	SB	

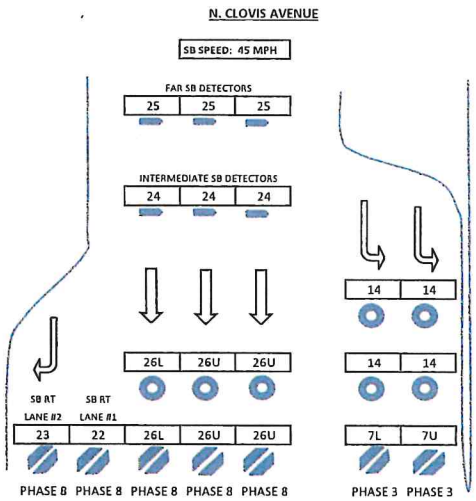
COMMENTS:

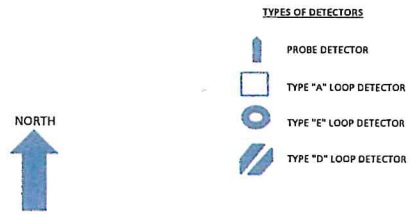
222 Loop Amplifier
752 Discriminator
242 Isolator
232 Mag Amplifier

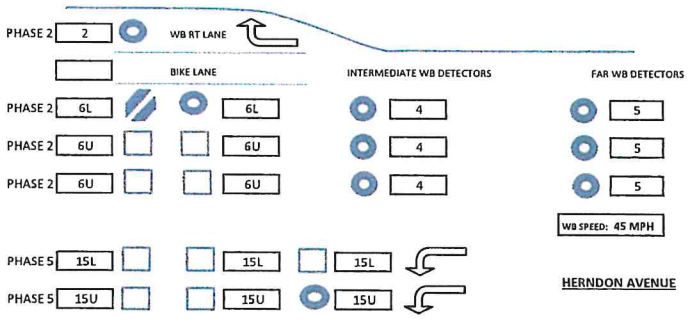
Detector Layout for the Intersection of: CLOVIS and HERNDON
DATE: Friday, June 4, 2021
BY: T. Barker

NOTES:
X DETECTOR NUMBER

"I" - INPUT PANEL		"J" - INPUT PANEL	
Det No.	Location	Det No.	Location
1U	EBLT Loops Lane #1	15U	WBLT Loops Lane #1
1L	EBLT Loops Lane #2	15L	WBLT Loops Lane #2
2	WBRT LOOP	16	EBRT LANE
3	(NOT USED)	17	(NOT USED)
4	WB INTERMEDIATE LOOPS	18	EB INT Magnetic Probes
5	WB FAR LOOPS	19	EB FAR Magnetic Probes
6U	WB LOOPS Lane #1 & #2	20U	EB LOOPS Lane #1 & #2
6L	WB LOOPS Lane #3	20L	EB LOOPS Lane #3
7U	SBLT Loops #1 Lane	21U	NBLT Loops #1 Lane
7L	SBLT Loops #2 Lane	21L	NBLT Loops #2 Lane
8	(NOT USED)	22	SBRT Loops Lane #1
9	(NOT USED)	23	SBRT Loops Lane #2
10	NB INT Magnetic Probes	24	SB INT Magnetic Probes
11	NB FAR Magnetic Probes	25	SB FAR Magnetic Probes
12U	NB LOOPS Lane #1 & #2	26U	SB LOOPS Lane #1 & #2
12L	NB LOOPS Lane #3	26L	SB LOOPS Lane #3
13	(NOT USED)	27	(NOT USED)
14	SBLT Back Loops	28	(NOT USED)
41	NA	43	NA
42	NA	44	NA
29	NA	31	NA
30	NA	32	NA

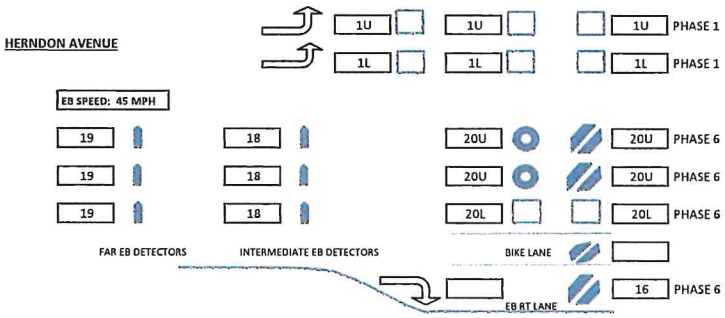


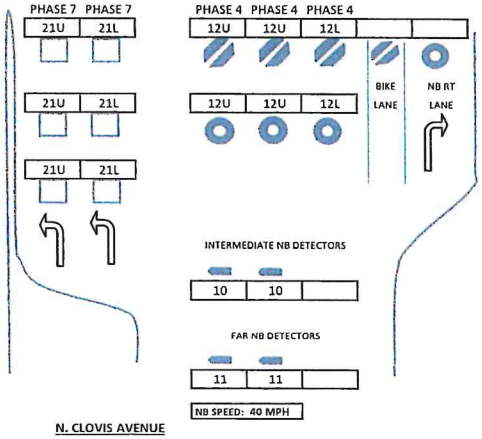




INTERSECTION MAINTENANCE NUMBER:
C 0255

COORDINATES:
LATITUDE 36.837324
LONGITUDE -119.700015



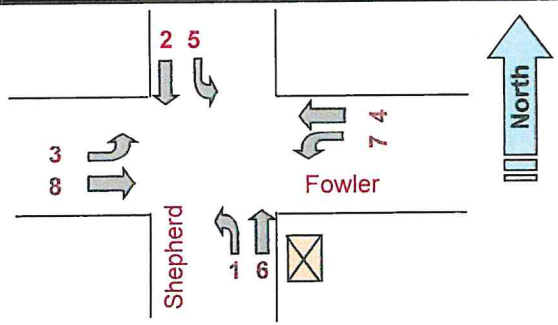


AGENDA ITEM NO. 3.

CLOVIS

Movement	NBL	SB	EBL	WB	SBL	NB	WBL	EB
Times [1.1.1]	1	2	3	4	5	6	7	8
Min Green	9	8	8	8	9	8	8	8
Gap, Ext	2	3	2	4.7	2	3	2	4.7
Max 1	35	40	35	40	35	40	35	40
Max 2								
Yel Clearance	3	4.7	3	5	3	4.7	3	5
Red Clearance	1	1	1	1	1	1	1	1
Walk								7
Ped Clearance								23
Red Revert	1	1	1	1	1	1	1	1
Add Initial								
Max Initial								
Time B4 Reduct		18		19		18		19
Cars B4 Reduct								
Time To Reduce		12		11		12		11
Reduce By								
Min Gap	2	1.8	2	3.1	2	1.8	2	3.1
DyMaxLim	45							
Max Step	5							

Options [1.1.2]	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Min Recall								
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		X		X		X		X
Enable Simul Gap	X	X	X	X	X	X		X
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								



Phase Options+ [1.1.3]

Options+	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
SkipRed-NoCall								
Red Rest								
Max II								
Max Inhibit								
Ped Delay								
Red Rest on Gap								
Conflicting Phase								
Grn/Ped Delay								
Omit Yel, Yel P								
Ped Out/Olp Ped								
StartYel, Next P			3				7	

Phase Concurrency [1.1.4]

Phase	Ring	StartUp	Concurrent Phases			
1	1	RED	5	6	0	0
2	1	YELLOW	5	6	0	0
3	1	RED	7	8	0	0
4	1	RED	7	8	0	0
5	2	RED	1	2	0	0
6	2	YELLOW	1	2	0	0
7	2	RED	3	4	0	0
8	2	RED	3	4	0	0
9		RED	0	0	0	0
10		RED	0	0	0	0
11		RED	0	0	0	0
12		RED	0	0	0	0

Comm Ports [6.6]

Channel	Port	Echo	Mode
Async 1	SP1	NONE	0
Async 2	SP2	NONE	0
Async 3	SP8	NONE	0
Async 4	OFF	NONE	0
Sync 1	SP5S		
Sync 2	SP3S		
TS2CVM	ASYNC3		
Opticom	NONE		
GPS	NONE		

Unit Params [1.2.1]

Startup Flash	0	Red Revert	1
MCE Timeout	0	Auto Ped Clear	OFF
Loc Flsh Start	OFF	Display Time	10
Yellow < 3"	OFF	Tone Disable	OFF
Allow Skip Yel	OFF	AudioPedTime	OFF
Start Red Tm	0	Phase Mode	STD8
Disable Init Ped	OFF	CNA FreeTime	0
TOD Dimming	OFF	Diamond Mode	4Ph
ST over Prmpt	OFF	Free Ring Seq	1
Feature Profile	1	IO Mode	AUTO
Mx Seek TrkTm	0	Max Cyc Timer	0
Mx Seek Dwell	0	CycFlt Actn	ALARM
Prmpt/Ext Coor	EXT	Clrnc Decide	OFF
Aux Switch	STOPTM	LPAlt Srs	OFF

Times+ [1.1.7]

	1	2	3	4	5	6	7	8
Walk2	0	0	0	0	0	0	0	0
BikeClr	0	0	0	0	0	0	0	0
GrnFlash	0	0	0	0	0	0	0	0
SfClrMn	0	0	0	0	0	0	0	0
SfClrNoFlsh	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

SDLC Parameters [1.3.2]

		Manual Check
		0
TS2 Detector Faults	OFF	OFF

SPECIAL INSTRUCTIONS:

Comm [6.2]

Port	Baud Rate	FCM
1	9600	6
2	9600	6
3	1200	0
4	1200	0

Comm [6.5]

IP Address:	10	128	0	96
Mask:	255	255	255	0
Gateway:	10	128	0	254
Port #:	5096			

Host IP * : 10 50 11 15

*Host IP must be entered manually.

Phase Seq. (2 ring) Chart [1.2.4]

Seq #	Ring	Phases					
1	1	1	2	3	4	0	0
	2	5	6	7	8	0	0
2	1	1	2	3	4	0	0
	2	6	5	7	8	0	0
3	1	2	1	3	4	0	0
	2	5	6	7	8	0	0
4	1	2	1	3	4	0	0
	2	6	5	7	8		0
5	1	1	2	3	4		0
	2	5	6	8	7	0	0
6	1	1	2	3	4	0	0
	2	6	5	8	7	0	0
7	1	2	1	3	4	0	0
	2	5	6	8	7	0	0
8	1	2	1	3	4	0	0
	2	6	5	8	7	0	0
9	1	1	2	4	3	0	0
	2	5	6	7	8	0	0
10	1	1	2	4	3	0	0
	2	6	5	7	8	0	0
11	1	2	1	4	3	0	0
	2	5	6	7	8	0	0
12	1	2	1	4	3	0	0
	2	6	5	7	8	0	0
13	1	1	2	4	3	0	0
	2	5	6	8	7		0
14	1	1	2	4	3		0
	2	6	5	8	7	0	0
15	1	2	1	4	3	0	0
	2	5	6	8	7	0	0
16	1	2	1	4	3	0	0
	2	6	5	8	7	0	0

Advance Warning [1.1.9]

	Ph	Tm
Aux Out #1	0	0
Aux Out #2	0	0

NAME: Fowler at Shepherd **ID:** 186 **Configuration:** Standard File

V76.7D
ATMS 1.5.45.263

Prepared by:		Date Installed:	12/31/2017
Installed by:		Date Superceded:	

Date Printed: 1/5/18

Page

[2.1] Coord Modes+

Test OpMode	0
Correction	LONG
Maximum	MAX 1
Force Mode	FIXED
Flash Mode	CHANNEL

Coord Modes+ (Page 2)

FreeonSeqCh	OFF
Closed Loop	OFF
External	OFF
Latch Sec Frc	OFF
Stop-in-Walk	OFF
Ped Recycle	NO_RECYCLE
Expand Splt	OFF
Easy Float	OFF
Auto Reset	OFF
NTCIP Yield	+ 0

Leave Walk

Before	TIMED
After	TIMED

Intersection Name: Fowler at Shepherd

ID: 186

CITY OF CLOVIS

Date Printed: 1/5/2018

[2.4] Patterns

Pat#	Cyc	Off	Split	Seq
1	0	0	0	1
2	0	0	0	1
3	0	0	0	1
4	0	0	0	1
5	0	0	0	1
6	0	0	0	1
7	0	0	0	1
8	0	0	0	1
9	0	0	0	1
10	0	0	0	1
30	0	0	0	1
31	0	0	0	1
32	0	0	0	1

[2.7.1-24] Splits

Split	[2.7]	1	2	3	4	5	6	7	8
1	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
2	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
3	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
4	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
5	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
6	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
7	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
8	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
9	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
10	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
30	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
31	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON
32	Split	0	0	0	0	0	0	0	0
	Crd-P								
	Mode	NON	NON	NON	NON	NON	NON	NON	NON

[2.5] Transition

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	Ped Hold	Flt	Veh	Ped	MODE
1		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
2		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
3		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
4		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
5		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
6		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
7		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
8		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
9		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
10		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
30		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
31		17	0	0	0	0	0	0	BegGRN	-	-	-	-	
32		17	0	0	0	0	0	0	BegGRN	-	-	-	-	

Overlap 1-8 Program Parms & Parm+ [1.5.2.1] [1.5.2.8]

		NORMAL	
1	Included Ø	Grn	
	Modifier Ø	Yel	3.5
A	Conflict Ø	Red	1.5
	Conflict Olap	LG	
	Conflict Ped		
2	Included Ø	NORMAL	
	Modifier Ø	Grn	
B	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
3	Included Ø	NORMAL	
	Modifier Ø	Grn	
C	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
4	Included Ø	NORMAL	
	Modifier Ø	Grn	
D	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
5	Included Ø	NORMAL	
	Modifier Ø	Grn	
E	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
6	Included Ø	NORMAL	
	Modifier Ø	Grn	
F	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
7	Included Ø	NORMAL	
	Modifier Ø	Grn	
G	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	
8	Included Ø	NORMAL	
	Modifier Ø	Grn	
H	Conflict Ø	Yel	3.5
	Conflict Olap	Red	1.5
	Conflict Ped	LG	

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	EXT
Max Seek Track Time	0
Max Seek Dwell Time	0

Channel Parameters [1.8.3]

Pre Invert Rail Input	OFF

Preemption Options+ [3.6]

Pre #	Enable	Type	Output	Pattern	Skip	Co+Pre	Flash	Max/Min
1	ON	RAIL	TS2		OFF	OFF	OFF	MAX
2	OFF	EMERG	TS2		OFF	OFF	OFF	MAX
3	ON	EMERG	TS2		OFF	OFF	OFF	MAX
4	ON	EMERG	TS2		OFF	OFF	OFF	MAX
5	ON	EMERG	TS2		OFF	OFF	OFF	MAX
6	ON	EMERG	TS2		OFF	OFF	OFF	MAX

Preemption Times+ [3.1]

Pre #	Delay	MinDura	MaxPres	MinGrn	MinWlk	PedClr	Track Grn	Min Dwell
1								
2								
3		9	60		4	23		9
4		9	60		4	18		9
5		9	60		4	22		9
6		9	60		4	18		9

Preemption, Options+ [3.3]

Pre #	Lock Input	Over-ride Auto Flash	Over-ride Higher Preempt#	Flash Dwell	Link
1	ON	ON	ON	ON	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Preemption, Times+ [3.4]

Pre No.	Extend Dwell	Return Max	Ped Clr	Yel	Red
1					
2					
3					
4					
5					
6					

Dwell Phases [3.2]

Pre #	Column	1	2	3	4	5	0
1	Phases						
	Peds						
2	Phases						
	Peds						
3	Phases	2	5				
	Peds						
4	Phases	4	7				
	Peds						
5	Phases	1	6				
	Peds						
6	Phases	3	8				
	Peds						

Track Clear Phases [3.2]

Pre #	Phases
1	
2	
3	
4	
5	
6	

Exit Phases [3.2]

No.	Exit Phase
1	
2	
3	
4	
5	
6	

Overlaps+ [3.5]

Pre #		Preempt Overlaps +
1	Track	
	Dwell	
2	Track	
	Dwell	
3	Track	
	Dwell	
4	Track	
	Dwell	
5	Track	
	Dwell	
6	Track	
	Dwell	

Low Priority Preempts [3.X; where X = 7 thru 10]

Pre #	Enb	C+P	Lock	NoSkip	Qjump	Alt Tbl	Times Min	Times Max	Times Lock	Priorty Phases			
7	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
8	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
9	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0
10	OFF	OFF	MAX	OFF	OFF		0	0	0	0	0	0	0

Advance Times [3.x.8]

	1	2	3	4	5	6
YelChng						
RedClr						
TrkYelChng						
TrkRedClr						

OLP GENERAL PARAMETERS [1.5.1]

Lock Inhibit	OFF
Conflict Lock Enable	OFF
Parent P Clearance	OFF
Xtra Incl Phases	OFF
InhibitLockInterval	Always

CITY OF CLOVIS

Name: Fowler at Shepherd **ID:** 186

Date Printed: 1/5/2018

CHANNEL SETTINGS [1.8] plus UNIT PARAMETERS [1.2.1]

CHANNEL SETTINGS [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase / Olap #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																
	Page 1								Page 2							

Chan Settings [1.8.2]

17	18	19	20	21	22	23	24
1	3	5	7				
PED	PED	PED	PED	VEH	VEH	VEH	VEH
DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK

CHANNEL PARMETERS [1.8.3]

CH 17-24 Mapping:	DEFAULT
D-Conn Mapping:	NONE
Invert Rail Inputs:	OFF
C1-C11-ABC IO Mode:	AUTO

CHANNELS+ [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Red	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Flash Yellow	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Inh Red Fl in Preempt	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

IO PARAMETERS [1.8.6]

C1-C11-ABC IO Mode:	AUTO
D-Conn Mapping:	NONE
T & F BIU Mapping	DEFAULT
Invert Rail Inputs:	OFF
EVP Ped Confirm	OFF

CITY OF CLOVIS

I/O LOGIC [1.8.7]

Row#	Result		Function			OP	Function			OP	Function			OP	Timer	
	I/O	Fcn	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Inv	I/0	Fcn	Logic	Dly	Sec
1	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
2	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
3	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
4	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
5	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
6	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
7	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
8	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
9	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0
10	I	0	-	I	----	0	-	I	----	0	-	I	----	0	DLY	0

Ped Parms (MM>5>4)

Det#	Call	No Act	Max Pres	Err Cnt
1	0	0	0	0
2	2	0	0	0
3	0	0	0	0
4	4	0	0	0
5	0	0	0	0
6	6	0	0	0
7	0	0	0	0
8	8	0	0	0

Page 4

Date Printed: 1/5/2018

ID: 186

AGENDA ITEM NO. 3.

Veh Par 1-32 [5.1]

Det #	Input Slot	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1I1U	1					0	0	0	2
2	2I2U	2			1.1		0	0	0	2
3	2I2L	2			3.7		0	0	0	2
4	2I3U	2					0	0	0	2
5	2I3L	2			2	20	0	0	0	2
6	2I4U	2			2	20	0	0	0	2
7	3I5U	3					0	0	0	2
8	4I6U	4			1.6		0	0	0	2
9	4I6L	4			0.1		0	0	0	2
10	4I7U	4		10			0	0	0	2
11	4I7L	4			2	20	0	0	0	2
12	4I8U	4			2	20	0	0	0	2
13	1I9U	1					0	0	0	2
14	3I9L	3					0	0	0	2
15	5J1U	5					0	0	0	2
16	6J2U	6			1		0	0	0	2
17	6J2L	6			0.8		0	0	0	2
18	6J3U	6		10			0	0	0	2
19	6J3L	6			2	20	0	0	0	2
20	6J4U	6			2	20	0	0	0	2
21	7J5U	7					0	0	0	2
22	8J6U	8			1.5		0	0	0	2
23	8J6L	8			0.1		0	0	0	2
24	8J7U	8					0	0	0	2
25	8J7L	8			2	20	0	0	0	2
26	8J8U	8			2	20	0	0	0	2
27	5J9U	5					0	0	0	2
28	7J9L	7					0	0	0	2
29	2I11U	2					0	0	0	2
30	4I11L	4					0	0	0	2
31	6J11U	6					0	0	0	2
32	8J11L	8					0	0	0	2
33	1I1L	1					0	0	0	2
34	2I4L	2			2	20	0	0	0	2
35	3I5L	3					0	0	0	2
36	4I8L	4			2	20	0	0	0	2
37	5J1L	5					0	0	0	2
38	6J4L	6			2	20	0	0	0	2
39	7J5L	7					0	0	0	2
40	8J8L	8			2	20	0	0	0	2
41	4I10U						0	0	0	0
42	4I10L						0	0	0	0
43	8J10U						0	0	0	0
44	8J10L						0	0	0	0

Vehicle Options 1-32 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	X	X	-	-	X	-	X	X
2	-	X	-	-	-	-	-	-
3	-	X	-	-	-	-	-	-
4	X	X	-	-	-	-	-	-
5	X	-	X	-	-	-	-	-
6	X	-	X	-	-	-	X	X
7	X	X	-	-	X	-	X	X
8	X	X	-	-	-	-	-	-
9	X	X	-	-	-	-	-	-
10	X	-	-	-	-	-	X	X
11	X	-	X	-	-	-	-	-
12	X	-	X	-	-	-	X	X
13	X	X	-	-	-	X	-	-
14	X	X	-	-	-	X	-	-
15	X	X	-	-	X	-	X	X
16	-	X	-	-	-	-	-	-
17	-	X	-	-	-	-	-	-
18	X	-	-	-	-	-	X	X
19	X	-	X	-	-	-	-	-
20	X	-	X	-	-	-	X	X
21	X	X	-	-	X	-	X	X
22	X	X	-	-	-	-	-	-
23	X	X	-	-	-	-	-	-
24	X	-	-	-	-	-	X	X
25	X	-	X	-	-	-	-	-
26	X	-	X	-	-	-	X	X
27	X	X	-	-	-	X	-	-
28	X	X	-	-	-	X	-	-
29	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-
34	X	-	X	-	-	-	X	X
35	-	-	-	-	-	-	-	-
36	X	-	X	-	-	-	X	X
37	-	-	-	-	-	-	-	-
38	X	-	X	-	-	-	X	X
39	-	-	-	-	-	-	-	-
40	X	-	X	-	-	-	X	X
41	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-

Parameters+ 1-32 [5.3]

Det #	Occupancy G	Occupancy Y	Occupancy R	Delay 1	Delay 2	Type
1	X	X	-			NORM
2	-	-	-			NORM
3	-	-	-			NORM
4	-	-	-			NORM
5	-	-	-			NORM
6	X	X	-			NORM
7	X	X	-			NORM
8	-	-	-			NORM
9	-	-	-			NORM
10	X	X	X			NORM
11	-	-	-			NORM
12	X	X	-			NORM
13	-	-	-			NORM
14	-	-	-			NORM
15	X	X	-			NORM
16	-	-	-			NORM
17	-	-	-			NORM
18	X	X	X			NORM
19	-	-	-			NORM
20	X	X	-			NORM
21	X	X	-			NORM
22	-	-	-			NORM
23	-	-	-			NORM
24	X	X	X			NORM
25	-	-	-			NORM
26	X	X	-			NORM
27	-	-	-			NORM
28	-	-	-			NORM
29	-	-	-			NORM
30	-	-	-			NORM
31	-	-	-			NORM
32	-	-	-			NORM
33	-	-	-			NORM
34	X	X	-			NORM
35	-	-	-			NORM
36	X	X	-			NORM
37	-	-	-			NORM
38	X	X	-			NORM
39	-	-	-			NORM
40	X	X	-			NORM
41	-	-	-			NORM
42	-	-	-			NORM
43	-	-	-			NORM
44	-	-	-			NORM

Info Only

Det #	
1	NBL1
2	
3	
4	
5	
6	SBT1
7	EBL1
8	
9	
10	WBR1
11	
12	WBT1
13	
14	
15	SBL1
16	
17	
18	WBT2
19	
20	NBT1
21	WBL1
22	
23	
24	EBR1
25	
26	EBT1
27	
28	
29	
30	
31	
32	
33	
34	SBT2
35	
36	
37	
38	NBT2
39	
40	EBT2
41	
42	
43	
44	

Det #
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44

ID: 186 **Name:** Fowler at Shepherd

Vol/Occ Period 0 Seconds / 15 Minutes

1/5/2018

Alt# 1 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	X	-	-	-	X
Dual Entry	-	X	-	X	-	X	-	X
Enabl SimGap	X	X	X	X	X	X	X	X
Guar Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alt# 2 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø	1	2	3	4	5	6	7	8
Lock Calls	-	-	-	-	-	-	-	-
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	X	-	-	-	X	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	X	X	X	X	X	X	X	X
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alt# 3 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Enrty	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alt# 4 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	X	X	X	X	X	X	X	X
Soft Recall	-	-	-	-	-	-	-	-
Dual Entry	-	-	-	-	-	-	-	-
Enabl SimGap	X	X	X	X	X	X	X	X
Gaur Passage	-	-	-	-	-	-	-	-
Rest In Walk	-	-	-	-	-	-	-	-
Cond Service	-	-	-	-	-	-	-	-
Reservice	-	-	-	-	-	-	-	-
Non-Act 1	-	-	-	-	-	-	-	-
Red Rest	-	-	-	-	-	-	-	-
Max2	-	-	-	-	-	-	-	-
Ped Delay	-	-	-	-	-	-	-	-
Conflicting Ø1								
Conflicting Ø2								

Alternate Tables [2.6]

Pat#	POpt	PTime	DetGrp	Call/Inh	Olp Off 1 2 3 4 5 6 7 8			
1	1					0	Off	DFT
2	2					0	Off	DFT
3						0	Off	DFT
4						0	Off	DFT
5						0	Off	DFT
6						0	Off	DFT
7						0	Off	DFT
8						0	Off	DFT
9						0	Off	DFT
10						0	Off	DFT
11						0	Off	DFT
12						0	Off	DFT
13						0	Off	DFT
14						0	Off	DFT
15						0	Off	DFT
16						0	Off	DFT
17						0	Off	DFT
18						0	Off	DFT
19						0	Off	DFT
20						0	Off	DFT
21						0	Off	DFT
22						0	Off	DFT
23						0	Off	DFT
24						0	Off	DFT

Time Base Parameters [4.6]

Daylight Savings Time	ENABLE	
Time Base Sync Ref	0	
GMT Offset	+	0
Daylight Savings	Mon	Week
Spring	0	1
Fall	0	1

CITY OF CLOVIS

NAME: Fowler at Shepherd

1/5/2018 **ID:** 186

Annual Schedule [4.3]

| | Month | | | | | | | | | | | | Day of Week | | | | | | | Date | | | | | | | | | | | |

#	Alarm	Ev	Alr
1	Power Up Alarm.	X	X
2	Stop Timing	X	X
3	Cabinet Door Activation	-	-
4	Coordination Failure	X	X
5	External Alarm # 1	-	-
6	External Alarm # 2	-	-
7	External Alarm # 3	-	-
8	External Alarm # 4	-	-
9	Closed Loop Disabled	-	-
10	External Alarm # 5	-	-
11	External Alarm # 6	-	-
12	Manual Control Enable	-	-
13	Coord Free Input	-	-
14	Local Flash Input	X	X
15	CMU/MMU Flash Input	-	-
16	MMU Fault	-	-
17	Cycle Fault	X	X
18	Cycle Failure	X	X
19	Coordination Fault	X	X
20	Controller Fault	X	X
21	Detector SDLC Fault	-	-
22	MMU SDLC Fault	-	-
23	Critical SDLC Fault	-	-
24	SDLC Res. Frame Fault	-	-
25	EEPROM CRC Fault	-	-
26	Detector Diagnostic Fault	-	-
27	Detector Fault from SDLC	-	-
28	Queue detector alarm	-	-
29	Ped Fault	X	X
30	Coord Diagnostic Fault	X	X
37	Download Request	-	-
38	Pattern Change	-	-
49	Preempt 1 Input	X	X
50	Preempt 2 Input	-	-
51	Preempt 3 Input	X	X
52	Preempt 4 Input	X	X
53	Preempt 5 Input	X	X
54	Preempt 6 Input	X	X
55	Preempt 7 Input	-	-
56	Preempt 8 Input	-	-
57	Preempt 9 Input	-	-
58	Preempt 10 Input	-	-
59	EEPROM Compare Fault	-	-
60	Coordination Failure	X	X
73	Controller Access	-	-
81	FIO Changed Status	-	-

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11
1	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Alarm Parameters [1.6.7.1]

Pattern Events:	OFF
Local Txmt Alarms:	OFF
Reassign User Alarm #1 In (5):	0
Reassign User Alarm #2 In (6):	0
Preempt Events:	OFF

CITY OF CLOVIS

Date Printed
1/5/2018

ID: 186 Name: Fowler at Shepherd

I/O Inputs - 1.8.9.1.5

C-1 PIN	I/O Source	Function	Input Name
39	I1-1	2	Veh Det 2
40	I1-2	16	Veh Det 16
41	I1-3	8	Veh Det 8
42	I1-4	22	Veh Det 22
43	I1-5	3	Veh Det 3
44	I1-6	17	Veh Det 17
45	I1-7	9	Veh Det 9
46	I1-8	23	Veh Det 23
47	I2-1	6	Veh Det 6
48	I2-2	20	Veh Det 20
49	I2-3	12	Veh Det 12
50	I2-4	26	Veh Det 26
51	I2-5	198	Pre 1 In
52	I2-6	199	Pre 2 In
53	I2-7	30	Veh Det 30
54	I2-8	31	Veh Det 31
55	I3-1	15	Veh Det 15
56	I3-2	1	Veh Det 1
57	I3-3	21	Veh Det 21
58	I3-4	7	Veh Det 7
59	I3-5	27	Veh Det 27
60	I3-6	13	Veh Det 13
61	I3-7	28	Veh Det 28
62	I3-8	14	Veh Det 14
63	I4-5	4	Veh Det 4
64	I4-6	18	Veh Det 18
65	I4-7	10	Veh Det 10
66	I4-8	24	Veh Det 24
67	I5-1	130	Ped Call 2
68	I5-2	134	Ped Call 6
69	I5-3	132	Ped Call 4
70	I5-4	136	Ped Call 8
71	I5-5	200	Pre 3 In
72	I5-6	201	Pre 4 In
73	I5-7	202	Pre 5 In
74	I5-8	203	Pre 6 In
75	I6-1	32	Veh Det 32
76	I6-2	5	Veh Det 5
77	I6-3	19	Veh Det 19
78	I6-4	11	Veh Det 11
79	I6-5	25	Veh Det 25
80	I6-6	29	Veh Det 29
81	I6-7	208	Local Flash
82	I6-8	207	Comp StopTm

I/O OUTPUTS .8.9.2.5

C-1 PIN	I/O Source	Function	Output Name
1	Logic Grd		
2	O1-1	14	Red Ch 14
3	O1-2	62	Grn Chan 14
4	O1-3	4	Red Ch 4
5	O1-4	28	Yel Chan 4
6	O1-5	52	Grn Chan 4
7	O1-6	3	Red Ch 3
8	O1-7	27	Yel Chan 3
9	O1-8	51	Grn Chan 3
10	O2-1	13	Red Ch 13
11	O2-2	61	Grn Chan 13
12	O2-3	2	Red Ch 2
13	O2-4	26	Yel Chan 2
14	Logic Grd		
15	O2-5	50	Grn Chan 2
16	O2-6	1	Red Ch 1
17	O2-7	25	Yel Chan 1
18	O2-8	49	Grn Chan 1
19	O3-1	16	Red Ch 16
20	O3-2	64	Grn Chan 16
21	O3-3	8	Red Ch 8
22	O3-4	32	Yel Chan 8
23	O3-5	56	Grn Chan 8
24	O3-6	7	Red Ch 7
25	O3-7	31	Yel Chan 7
26	O3-8	55	Grn Chan 7
27	O4-1	15	Red Ch 15
28	O4-2	63	Grn Chan 15
29	O4-3	6	Red Ch 6
30	O4-4	30	Yel Chan 6
31	O4-5	54	Grn Chan 6
32	O4-6	5	Red Ch 5
33	O4-7	29	Yel Chan 5
34	O4-8	53	Grn Chan 5
35	O5-1	37	Yel Chan 13
36	O5-2	39	Yel Chan 15
37	O5-3	38	Yel Chan 14
38	O5-4	40	Yel Chan 16
100	O5-5	42	Yel Chan 18
101	O5-6	41	Yel Chan 17
102	O5-7	115	Not Used
103	O5-8	114	Watchdog

C-1 PIN	I/O Source	Function	Output Name
83	O6-1	18	Red Ch 18
84	O6-2	66	Grn Chan 18
85	O6-3	12	Red Ch 12
86	O6-4	36	Yel Chan 12
87	O6-5	60	Grn Chan 12
88	O6-6	11	Red Ch 11
89	O6-7	35	Yel Chan 11
90	O6-8	59	Grn Chan 11
91	O7-1	17	Red Ch 17
92	Logic Grd		
93	O7-2	65	Grn Chan 17
94	O7-3	10	Red Ch 10
95	O7-4	34	Yel Chan 10
96	O7-5	58	Grn Chan 10
97	O7-6	9	Red Ch 9
98	O7-7	33	Yel Chan 9
99	O7-8	57	Grn Chan 9

I/O Outputs - 1.8.9.2.5
C-11 OUTPUTS

1	O8-1	17	Red Ch 17
2	O8-2	65	Grn Chan 17
3	O8-3	10	Red Ch 10
4	O8-4	34	Yel Chan 10

I/O Outputs - 1.8.9.2.5
C-11 INPUTS

15	I7-1	33	Veh Det 33
16	I7-2	34	Veh Det 34
17	I7-3	35	Veh Det 35
18	I7-4	36	Veh Det 36
19	I7-5	37	Veh Det 37
20	I7-6	38	Veh Det 38
21	I7-7	39	Veh Det 39
22	I7-8	40	Veh Det 40
23	I8-1	41	Veh Det 41
24	I8-2	42	Veh Det 42
25	I8-3	43	Veh Det 43
26	I8-4	44	Veh Det 44
27	I8-5	189	Unused
28	I8-6	189	Unused
29	I8-7	189	Unused
30	I8-8	189	Unused

CITY OF CLOVIS

ID: 186

NAME: Fowler at Shepherd

Date Printed: 1/5/2018

ID NUMBER: C0184

LOCATION: FOWLER AND SHEPHERD

CITY OF CLOVIS
332L CABINET
44 DETECTOR SETUP

	DETECTOR ASSIGNMENTS											ISOLATORS		
	NBLT	SB INT		SB NEAR	EBLT	WB INT	WBRT	WB NEAR	NBLT					
I	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14
UPPER	Ph 1 Call & Ext T2-1 & 2 C1-56 DET 1 "A" LOOP	Ph 2 Ext T2-5 & 6 C1-39 DET 2 1.1	Ph 2 Call & TP3 T2-9 & 10 C1-63 DET 4	Ph 2 Call & TP3 T4-1 & 2 C1-47 DET 6 2 Sec #1 A Loop	Ph 3 Call & Ext T4-5 & 6 C1-58 DET 7 "A" LOOP	Ph 4 Ext T4-9 & 10 C1-41 DET 8 1.6	Ph 4 Call & TP3 T6-1 & 2 C1-65 DET 10 10 DEL	Ph 4 Call & TP3 T6-5 & 6 C1-49 DET 12 2 Sec #1 A Loop	Ph 1 Call & Ext T6-9 & 10 C1-60 DET 13 B & C Loop	Ph 2/4 Ext T10-5 & 6 C11-23 DET 41	Ph 2 Call & Ext T8-1 C1-80 DET 29	Ph 2 PED CALL T8-4 C1-67	Ph 6 PED CALL T8-7 C1-68	FLASH SENSE T8-10 C1-81
LOWER	Ph 1 Call & Ext T2-3 & 4 C11-15 DET 33	Ph 2 Call & TP3 T2-7 & 8 C1-43 DET 3 3.7 Sec	Ph 2 Call & Ext T2-11 & 12 C1-76 DET 5 2 Sec #1 B Loop	Ph 2 Call & TP3 T4-3 & 4 C11-16 DET 34 2 Sec #2 A Loop	Ph 3 Call & Ext T4-7 & 8 C11-17 DET 35	Ph 4 Call & TP3 T4-11 & 12 C1-45 DET 9 0.1	Ph 4 Call & Ext T6-3 & 4 C1-78 DET 11 2 Sec #1 B Loop	Ph 4 Call & TP3 T6-7 & 8 C11-18 DET 36 2 Sec #2 A Loop	Ph 3 Call & Ext T6- 11 & 12 C1-62 DET 14 B & C Loop	Ph 2/4 Ext T10-7 & 8 C11-24 DET 42	Ph 4 Call & Ext T8-2 C1-53 DET 30	Ph 4 PED CALL T8-5 C1-69	Ph 8 PED CALL T8-8 C1-70	STOP TIME T8-11 C1-82
		SB FAR	SB NEAR	SB NEAR		WB FAR	WB NEAR	WB NEAR	EBLT				SOUTH LEG	
	SBLT	NB INT	NB RT	NB NEAR	WBLT	EB INT	EBRT	EB NEAR	SBLT			SB	WB	FUT UPS
J	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14
UPPER	Ph 5 Call & Ext T3-1 & 2 C1-55 DET 15 "A" LOOP	Ph 6 Ext T3-5 & 6 C1-40 DET 16 1.0	Ph 6 Call & TP3 T3-9 & 10 C1-64 DET 18 10 DEL	Ph 6 Call & TP3 T5-1 & 2 C1-48 DET 20 2 Sec #1 A Loop	Ph 7 Call & Ext T5-5 & 6 C1-57 DET 21 "A" LOOP	Ph 8 Ext T5- 9 & 10 C1-42 DET 22 1.5	Ph 8 Call & Ext T7-1 & 2 C1-66 DET 24	Ph 8 Call & TP3 T7- 5 & 6 C1-50 DET 26 2 Sec #1 A Loop	Ph 5 Call & Ext T7- 9 & 10 C1-59 DET 27 B & C Loop	Ph 6/8 Ext T10-9 & 10 C11-25 DET 43	Ph 6 Call & Ext T9-1 C1-54 DET 31	PH 2 & 5 EVA Preempt T9-4 C1 - 71	PH 4 & 7 EVB Preempt T9-5 C1 - 72	RAILROAD 1 T9-10 C1-51
LOWER	Ph 5 Call & Ext T3-3 & 4 C11-19 DET 37	Ph 6 Call & TP3 T3-7 & 8 C1-44 DET 17 0.8	Ph 6 Call & Ext T3-11 & 12 C1-77 DET 19 2 Sec B Loops	Ph 6 Call & TP3 T5-3 & 4 C11-20 DET 38 2 Sec #2 A Loop	Ph 7 Call & Ext T5-7 & 8 C11-21 DET 39	Ph 8 Call & TP3 T5-11 & 12 C1-46 DET 23 0.1	Ph 8 Call & Ext T7- 3 & 4 C1-79 DET 25 2 Sec B Loops	Ph 8 Call & TP3 T7- 7 & 8 C11-22 DET 40 2 Sec #2 A Loop	Ph 7 Call & Ext T7-11 & 12 C1-61 DET 28 B & C Loop	Ph 6/8 Ext T10-11 & 12 C11-26 DET 44	Ph 8 Call & Ext T9-2 C1-75 DET 32	PH 6 & 1 EVC Preempt T9-7 C1 - 73	PH 8 & 3 EVD Preempt T9-8 C1 - 74	RAILROAD 2 T9-11 C1-52
		NB FAR	NB NEAR	NB NEAR		EB FAR	EB NEAR	EB NEAR	WBLT			NB	EB	

COMMENTS:

Timing card - Update January 5, 2017

222 Loop Amplifier
764 Discriminator
242 Isolator
232 Mag Amplifier

APPENDIX D

VOLUME DEVELOPMENT WORKSHEETS

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
1 Willow Avenue/International Avenue						
NBL	349	15	364	111	10	121
NBT	293	12	305	366	8	374
NBR	14	0	14	12	0	12
SBL	62	0	62	19	0	19
SBT	430	4	434	252	14	266
SBR	86	0	86	11	0	11
EBL	22	0	22	9	0	9
EBT	70	0	70	37	0	37
EBR	193	5	198	93	17	110
WBL	14	0	14	5	0	5
WBT	267	0	267	62	0	62
WBR	53	0	53	29	0	29
North Leg						
Approach	578	4	582	282	14	296
Departure	368	12	380	404	8	412
Total	946	16	962	686	22	708
South Leg						
Approach	656	27	683	489	18	507
Departure	637	9	646	350	31	381
Total	1,293	36	1,329	839	49	888
East Leg						
Approach	334	0	334	96	0	96
Departure	146	0	146	68	0	68
Total	480	0	480	164	0	164
West Leg						
Approach	285	5	290	139	17	156
Departure	702	15	717	184	10	194
Total	987	20	1,007	323	27	350
Total Approaches						
Approach	1,853	36	1,889	1,006	49	1,055
Departure	1,853	36	1,889	1,006	49	1,055
Total	3,706	72	3,778	2,012	98	2,110

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
2 Willow Avenue/Behymer Avenue						
NBL	84	0	84	120	0	120
NBT	552	15	567	451	10	461
NBR	16	0	16	24	0	24
SBL	44	4	48	37	14	51
SBT	576	5	581	354	17	371
SBR	74	0	74	10	0	10
EBL	67	0	67	11	0	11
EBT	125	1	126	45	3	48
EBR	203	0	203	81	0	81
WBL	16	0	16	31	0	31
WBT	128	3	131	89	2	91
WBR	43	12	55	18	8	26
North Leg						
Approach	694	9	703	401	31	432
Departure	662	27	689	480	18	498
Total	1,356	36	1,392	881	49	930
South Leg						
Approach	652	15	667	595	10	605
Departure	795	5	800	466	17	483
Total	1,447	20	1,467	1,061	27	1,088
East Leg						
Approach	187	15	202	138	10	148
Departure	185	5	190	106	17	123
Total	372	20	392	244	27	271
West Leg						
Approach	395	1	396	137	3	140
Departure	286	3	289	219	2	221
Total	681	4	685	356	5	361
Total Approaches						
Approach	1,928	40	1,968	1,271	54	1,325
Departure	1,928	40	1,968	1,271	54	1,325
Total	3,856	80	3,936	2,542	108	2,650

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
3 Willow Avenue/Shepherd Avenue						
NBL	160	0	160	243	0	243
NBT	587	0	587	657	0	657
NBR	49	1	50	89	3	92
SBL	161	5	166	127	17	144
SBT	740	0	740	464	0	464
SBR	50	0	50	31	0	31
EBL	29	0	29	36	0	36
EBT	243	12	255	323	38	361
EBR	145	0	145	113	0	113
WBL	44	3	47	34	2	36
WBT	298	34	332	315	23	338
WBR	98	15	113	145	10	155
North Leg						
Approach	951	5	956	622	17	639
Departure	714	15	729	838	10	848
Total	1,665	20	1,685	1,460	27	1,487
South Leg						
Approach	796	1	797	989	3	992
Departure	929	3	932	611	2	613
Total	1,725	4	1,729	1,600	5	1,605
East Leg						
Approach	440	52	492	494	35	529
Departure	453	18	471	539	58	597
Total	893	70	963	1,033	93	1,126
West Leg						
Approach	417	12	429	472	38	510
Departure	508	34	542	589	23	612
Total	925	46	971	1,061	61	1,122
Total Approaches						
Approach	2,604	70	2,674	2,577	93	2,670
Departure	2,604	70	2,674	2,577	93	2,670
Total	5,208	140	5,348	5,154	186	5,340

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
4 Minnewawa Avenue/International Avenue						
NBL	314	3	317	101	2	103
NBT	196	6	202	212	4	216
NBR	0	0	0	1	0	1
SBL	0	0	0	0	0	0
SBT	245	2	247	231	7	238
SBR	6	0	6	3	0	3
EBL	1	0	1	4	0	4
EBT	0	0	0	0	0	0
EBR	100	1	101	53	3	56
WBL	0	0	0	0	0	0
WBT	1	0	1	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	251	2	253	234	7	241
Departure	197	6	203	216	4	220
Total	448	8	456	450	11	461
South Leg						
Approach	510	9	519	314	6	320
Departure	345	3	348	284	10	294
Total	855	12	867	598	16	614
East Leg						
Approach	1	0	1	0	0	0
Departure	0	0	0	1	0	1
Total	1	0	1	1	0	1
West Leg						
Approach	101	1	102	57	3	60
Departure	321	3	324	104	2	106
Total	422	4	426	161	5	166
Total Approaches						
Approach	863	12	875	605	16	621
Departure	863	12	875	605	16	621
Total	1,726	24	1,750	1,210	32	1,242

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
5 Minnewawa Avenue/Behymer Avenue						
NBL	41	0	41	46	0	46
NBT	212	0	212	205	0	205
NBR	8	0	8	6	0	6
SBL	123	3	126	95	10	105
SBT	225	0	225	190	0	190
SBR	3	0	3	2	0	2
EBL	3	0	3	3	0	3
EBT	114	5	119	69	17	86
EBR	44	0	44	30	0	30
WBL	12	0	12	6	0	6
WBT	145	15	160	86	10	96
WBR	297	9	306	99	6	105
North Leg						
Approach	351	3	354	287	10	297
Departure	512	9	521	307	6	313
Total	863	12	875	594	16	610
South Leg						
Approach	261	0	261	257	0	257
Departure	281	0	281	226	0	226
Total	542	0	542	483	0	483
East Leg						
Approach	454	24	478	191	16	207
Departure	245	8	253	170	27	197
Total	699	32	731	361	43	404
West Leg						
Approach	161	5	166	102	17	119
Departure	189	15	204	134	10	144
Total	350	20	370	236	27	263
Total Approaches						
Approach	1,227	32	1,259	837	43	880
Departure	1,227	32	1,259	837	43	880
Total	2,454	64	2,518	1,674	86	1,760

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
6 Minnewawa Avenue/Shepherd Avenue						
NBL	127	0	127	104	0	104
NBT	150	0	150	152	0	152
NBR	41	8	49	26	28	54
SBL	103	0	103	76	0	76
SBT	159	0	159	142	0	142
SBR	29	0	29	13	0	13
EBL	33	0	33	20	0	20
EBT	339	19	358	390	63	453
EBR	152	0	152	81	0	81
WBL	44	25	69	19	17	36
WBT	291	55	346	342	37	379
WBR	91	0	91	85	0	85
North Leg						
Approach	291	0	291	231	0	231
Departure	274	0	274	257	0	257
Total	565	0	565	488	0	488
South Leg						
Approach	318	8	326	282	28	310
Departure	355	25	380	242	17	259
Total	673	33	706	524	45	569
East Leg						
Approach	426	80	506	446	54	500
Departure	483	27	510	492	91	583
Total	909	107	1,016	938	145	1,083
West Leg						
Approach	524	19	543	491	63	554
Departure	447	55	502	459	37	496
Total	971	74	1,045	950	100	1,050
Total Approaches						
Approach	1,559	107	1,666	1,450	145	1,595
Departure	1,559	107	1,666	1,450	145	1,595
Total	3,118	214	3,332	2,900	290	3,190

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
7 Clovis Avenue/Behymer Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	245	8	253	170	28	198
EBR	0	0	0	0	0	0
WBL	0	0	0	0	0	0
WBT	454	25	479	191	17	208
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
East Leg						
Approach	454	25	479	191	17	208
Departure	245	8	253	170	28	198
Total	699	33	732	361	45	406
West Leg						
Approach	245	8	253	170	28	198
Departure	454	25	479	191	17	208
Total	699	33	732	361	45	406
Total Approaches						
Approach	699	33	732	361	45	406
Departure	699	33	732	361	45	406
Total	1,398	66	1,464	722	90	812

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
8 Clovis Avenue/Baron Avenue						
NBL	83	0	83	30	0	30
NBT	3	0	3	0	0	0
NBR	0	96	96	0	317	317
SBL	0	0	0	0	0	0
SBT	3	0	3	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	0	279	279	0	188	188
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	3	0	3	0	0	0
Departure	3	0	3	0	0	0
Total	6	0	6	0	0	0
South Leg						
Approach	86	96	182	30	317	347
Departure	3	279	282	0	188	188
Total	89	375	464	30	505	535
East Leg						
Approach	0	279	279	0	188	188
Departure	0	96	96	0	317	317
Total	0	375	375	0	505	505
West Leg						
Approach	0	0	0	0	0	0
Departure	83	0	83	30	0	30
Total	83	0	83	30	0	30
Total Approaches						
Approach	89	375	464	30	505	535
Departure	89	375	464	30	505	535
Total	178	750	928	60	1,010	1,070

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
9 Clovis Avenue/Shepherd Avenue						
NBL	80	0	80	140	0	140
NBT	59	55	114	44	181	225
NBR	86	0	86	70	0	70
SBL	19	40	59	10	27	37
SBT	71	160	231	24	108	132
SBR	67	80	147	26	54	80
EBL	32	28	60	32	90	122
EBT	337	0	337	343	0	343
EBR	118	0	118	103	0	103
WBL	109	0	109	77	0	77
WBT	294	0	294	304	0	304
WBR	48	14	62	7	45	52
North Leg						
Approach	157	280	437	60	189	249
Departure	139	97	236	83	316	399
Total	296	377	673	143	505	648
South Leg						
Approach	225	55	280	254	181	435
Departure	298	160	458	204	108	312
Total	523	215	738	458	289	747
East Leg						
Approach	451	14	465	388	45	433
Departure	442	40	482	423	27	450
Total	893	54	947	811	72	883
West Leg						
Approach	487	28	515	478	90	568
Departure	441	80	521	470	54	524
Total	928	108	1,036	948	144	1,092
Total Approaches						
Approach	1,320	377	1,697	1,180	505	1,685
Departure	1,320	377	1,697	1,180	505	1,685
Total	2,640	754	3,394	2,360	1,010	3,370

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
10 Clovis Avenue/Teague Avenue						
NBL	263	0	263	156	0	156
NBT	209	51	260	290	167	457
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	273	147	420	223	99	322
SBR	183	12	195	60	8	68
EBL	73	4	77	67	14	81
EBT	0	0	0	0	0	0
EBR	222	0	222	87	0	87
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	456	159	615	283	107	390
Departure	282	55	337	357	181	538
Total	738	214	952	640	288	928
South Leg						
Approach	472	51	523	446	167	613
Departure	495	147	642	310	99	409
Total	967	198	1,165	756	266	1,022
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	295	4	299	154	14	168
Departure	446	12	458	216	8	224
Total	741	16	757	370	22	392
Total Approaches						
Approach	1,223	214	1,437	883	288	1,171
Departure	1,223	214	1,437	883	288	1,171
Total	2,446	428	2,874	1,766	576	2,342

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
11 Clovis Avenue/Nees Avenue						
NBL	70	0	70	124	0	124
NBT	294	41	335	400	136	536
NBR	20	0	20	46	0	46
SBL	70	0	70	43	0	43
SBT	416	120	536	253	81	334
SBR	42	28	70	27	19	46
EBL	30	10	40	22	31	53
EBT	306	0	306	415	0	415
EBR	194	0	194	249	0	249
WBL	35	0	35	22	0	22
WBT	363	0	363	385	0	385
WBR	180	0	180	74	0	74
North Leg						
Approach	528	148	676	323	100	423
Departure	504	51	555	496	167	663
Total	1,032	199	1,231	819	267	1,086
South Leg						
Approach	384	41	425	570	136	706
Departure	645	120	765	524	81	605
Total	1,029	161	1,190	1,094	217	1,311
East Leg						
Approach	578	0	578	481	0	481
Departure	396	0	396	504	0	504
Total	974	0	974	985	0	985
West Leg						
Approach	530	10	540	686	31	717
Departure	475	28	503	536	19	555
Total	1,005	38	1,043	1,222	50	1,272
Total Approaches						
Approach	2,020	199	2,219	2,060	267	2,327
Departure	2,020	199	2,219	2,060	267	2,327
Total	4,040	398	4,438	4,120	534	4,654

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
12 Clovis Avenue/Alluvial Avenue						
NBL	127	0	127	146	0	146
NBT	282	39	321	558	129	687
NBR	61	0	61	67	0	67
SBL	126	0	126	77	0	77
SBT	576	114	690	454	77	531
SBR	34	6	40	13	4	17
EBL	13	2	15	15	7	22
EBT	269	0	269	342	0	342
EBR	153	0	153	175	0	175
WBL	44	0	44	36	0	36
WBT	407	0	407	302	0	302
WBR	89	0	89	77	0	77
North Leg						
Approach	736	120	856	544	81	625
Departure	384	41	425	650	136	786
Total	1,120	161	1,281	1,194	217	1,411
South Leg						
Approach	470	39	509	771	129	900
Departure	773	114	887	665	77	742
Total	1,243	153	1,396	1,436	206	1,642
East Leg						
Approach	540	0	540	415	0	415
Departure	456	0	456	486	0	486
Total	996	0	996	901	0	901
West Leg						
Approach	435	2	437	532	7	539
Departure	568	6	574	461	4	465
Total	1,003	8	1,011	993	11	1,004
Total Approaches						
Approach	2,181	161	2,342	2,262	217	2,479
Departure	2,181	161	2,342	2,262	217	2,479
Total	4,362	322	4,684	4,524	434	4,958

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
13 State Route 168 Westbound Ramps/Herndon Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	0	0	0	0	0
SBL	66	0	66	66	0	66
SBT	0	0	0	0	0	0
SBR	729	0	729	342	0	342
EBL	0	0	0	0	0	0
EBT	957	2	959	1,653	7	1,660
EBR	491	0	491	529	0	529
WBL	0	0	0	0	0	0
WBT	1,454	6	1,460	1,451	4	1,455
WBR	576	74	650	540	50	590
North Leg						
Approach	795	0	795	408	0	408
Departure	576	74	650	540	50	590
Total	1,371	74	1,445	948	50	998
South Leg						
Approach	0	0	0	0	0	0
Departure	491	0	491	529	0	529
Total	491	0	491	529	0	529
East Leg						
Approach	2,030	80	2,110	1,991	54	2,045
Departure	1,023	2	1,025	1,719	7	1,726
Total	3,053	82	3,135	3,710	61	3,771
West Leg						
Approach	1,448	2	1,450	2,182	7	2,189
Departure	2,183	6	2,189	1,793	4	1,797
Total	3,631	8	3,639	3,975	11	3,986
Total Approaches						
Approach	4,273	82	4,355	4,581	61	4,642
Departure	4,273	82	4,355	4,581	61	4,642
Total	8,546	164	8,710	9,162	122	9,284

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
14 State Route 168 Eastbound Ramps/Herndon Avenue						
NBL	454	0	454	497	0	497
NBT	0	0	0	0	0	0
NBR	479	25	504	677	84	761
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	810	2	812	1,359	7	1,366
EBR	213	0	213	360	0	360
WBL	0	0	0	0	0	0
WBT	1,576	80	1,656	1,494	54	1,548
WBR	79	0	79	184	0	184
North Leg						
Approach	0	0	0	0	0	0
Departure	79	0	79	184	0	184
Total	79	0	79	184	0	184
South Leg						
Approach	933	25	958	1,174	84	1,258
Departure	213	0	213	360	0	360
Total	1,146	25	1,171	1,534	84	1,618
East Leg						
Approach	1,655	80	1,735	1,678	54	1,732
Departure	1,289	27	1,316	2,036	91	2,127
Total	2,944	107	3,051	3,714	145	3,859
West Leg						
Approach	1,023	2	1,025	1,719	7	1,726
Departure	2,030	80	2,110	1,991	54	2,045
Total	3,053	82	3,135	3,710	61	3,771
Total Approaches						
Approach	3,611	107	3,718	4,571	145	4,716
Departure	3,611	107	3,718	4,571	145	4,716
Total	7,222	214	7,436	9,142	290	9,432

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
15 Clovis Avenue/Herndon Avenue						
NBL	232	0	232	350	0	350
NBT	255	8	263	402	28	430
NBR	120	0	120	276	0	276
SBL	161	9	170	271	6	277
SBT	283	25	308	262	17	279
SBR	402	80	482	266	54	320
EBL	243	28	271	366	90	456
EBT	832	0	832	1,368	0	1,368
EBR	214	0	214	302	0	302
WBL	148	0	148	316	0	316
WBT	1,021	0	1,021	1,062	0	1,062
WBR	157	3	160	132	10	142
North Leg						
Approach	846	114	960	799	77	876
Departure	655	39	694	900	128	1,028
Total	1,501	153	1,654	1,699	205	1,904
South Leg						
Approach	607	8	615	1,028	28	1,056
Departure	645	25	670	880	17	897
Total	1,252	33	1,285	1,908	45	1,953
East Leg						
Approach	1,326	3	1,329	1,510	10	1,520
Departure	1,113	9	1,122	1,915	6	1,921
Total	2,439	12	2,451	3,425	16	3,441
West Leg						
Approach	1,289	28	1,317	2,036	90	2,126
Departure	1,655	80	1,735	1,678	54	1,732
Total	2,944	108	3,052	3,714	144	3,858
Total Approaches						
Approach	4,068	153	4,221	5,373	205	5,578
Departure	4,068	153	4,221	5,373	205	5,578
Total	8,136	306	8,442	10,746	410	11,156

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
16 Baron Avenue/Behymer Avenue						
NBL	0	25	25	0	17	17
NBT	0	0	0	0	0	0
NBR	0	3	3	0	2	2
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	245	0	245	170	0	170
EBR	0	8	8	0	28	28
WBL	2	1	3	0	3	3
WBT	454	0	454	191	0	191
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	0	28	28	0	19	19
Departure	2	9	11	0	31	31
Total	2	37	39	0	50	50
East Leg						
Approach	456	1	457	191	3	194
Departure	245	3	248	170	2	172
Total	701	4	705	361	5	366
West Leg						
Approach	245	8	253	170	28	198
Departure	454	25	479	191	17	208
Total	699	33	732	361	45	406
Total Approaches						
Approach	701	37	738	361	50	411
Departure	701	37	738	361	50	411
Total	1,402	74	1,476	722	100	822

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
17 Baron Avenue/Perrin Avenue						
NBL	0	36	36	0	118	118
NBT	0	60	60	0	198	198
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	0	175	175	0	118	118
SBR	0	3	3	0	10	10
EBL	0	9	9	0	6	6
EBT	0	0	0	0	0	0
EBR	0	104	104	0	70	70
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	0	178	178	0	128	128
Departure	0	69	69	0	204	204
Total	0	247	247	0	332	332
South Leg						
Approach	0	96	96	0	316	316
Departure	0	279	279	0	188	188
Total	0	375	375	0	504	504
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	0	113	113	0	76	76
Departure	0	39	39	0	128	128
Total	0	152	152	0	204	204
Total Approaches						
Approach	0	387	387	0	520	520
Departure	0	387	387	0	520	520
Total	0	774	774	0	1,040	1,040

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
18 Sunnyside Avenue/Shepherd Avenue						
NBL	54	3	57	80	10	90
NBT	11	0	11	11	0	11
NBR	27	0	27	31	0	31
SBL	2	0	2	4	0	4
SBT	14	0	14	13	0	13
SBR	9	0	9	9	0	9
EBL	8	0	8	9	0	9
EBT	325	31	356	342	21	363
EBR	106	9	115	70	6	76
WBL	31	0	31	29	0	29
WBT	371	11	382	296	35	331
WBR	3	0	3	6	0	6
North Leg						
Approach	25	0	25	26	0	26
Departure	22	0	22	26	0	26
Total	47	0	47	52	0	52
South Leg						
Approach	92	3	95	122	10	132
Departure	151	9	160	112	6	118
Total	243	12	255	234	16	250
East Leg						
Approach	405	11	416	331	35	366
Departure	354	31	385	377	21	398
Total	759	42	801	708	56	764
West Leg						
Approach	439	40	479	421	27	448
Departure	434	14	448	385	45	430
Total	873	54	927	806	72	878
Total Approaches						
Approach	961	54	1,015	900	72	972
Departure	961	54	1,015	900	72	972
Total	1,922	108	2,030	1,800	144	1,944

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
19 Fowler Avenue/Shepherd Avenue						
NBL	141	4	145	109	14	123
NBT	92	0	92	119	0	119
NBR	34	0	34	73	0	73
SBL	185	0	185	110	0	110
SBT	125	0	125	112	0	112
SBR	18	0	18	14	0	14
EBL	20	0	20	23	0	23
EBT	281	18	299	276	12	288
EBR	51	12	63	75	8	83
WBL	36	0	36	47	0	47
WBT	279	6	285	240	21	261
WBR	370	0	370	128	0	128
North Leg						
Approach	328	0	328	236	0	236
Departure	482	0	482	270	0	270
Total	810	0	810	506	0	506
South Leg						
Approach	267	4	271	301	14	315
Departure	212	12	224	234	8	242
Total	479	16	495	535	22	557
East Leg						
Approach	685	6	691	415	21	436
Departure	500	18	518	459	12	471
Total	1,185	24	1,209	874	33	907
West Leg						
Approach	352	30	382	374	20	394
Departure	438	10	448	363	35	398
Total	790	40	830	737	55	792
Total Approaches						
Approach	1,632	40	1,672	1,326	55	1,381
Departure	1,632	40	1,672	1,326	55	1,381
Total	3,264	80	3,344	2,652	110	2,762

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
20 Hammel Avenue/Project Driveway 1						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	3	3	0	10	10
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	0	9	9	0	6	6
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	0	3	3	0	10	10
Departure	0	9	9	0	6	6
Total	0	12	12	0	16	16
East Leg						
Approach	0	9	9	0	6	6
Departure	0	3	3	0	10	10
Total	0	12	12	0	16	16
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	0	12	12	0	16	16
Departure	0	12	12	0	16	16
Total	0	24	24	0	32	32

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
21 Hammel Avenue/Project Driveway 2						
NBL	0	0	0	0	0	0
NBT	0	3	3	0	10	10
NBR	0	11	11	0	35	35
SBL	0	0	0	0	0	0
SBT	0	9	9	0	6	6
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	0	0	0	0	0
EBR	0	0	0	0	0	0
WBL	0	31	31	0	21	21
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	0	9	9	0	6	6
Departure	0	3	3	0	10	10
Total	0	12	12	0	16	16
South Leg						
Approach	0	14	14	0	45	45
Departure	0	40	40	0	27	27
Total	0	54	54	0	72	72
East Leg						
Approach	0	31	31	0	21	21
Departure	0	11	11	0	35	35
Total	0	42	42	0	56	56
West Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
Total Approaches						
Approach	0	54	54	0	72	72
Departure	0	54	54	0	72	72
Total	0	108	108	0	144	144

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
22 Project Driveway 3/Perrin Avenue						
NBL	0	0	0	0	0	0
NBT	0	0	0	0	0	0
NBR	0	74	74	0	50	50
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	0	40	40	0	27	27
EBR	0	0	0	0	0	0
WBL	0	25	25	0	84	84
WBT	0	14	14	0	45	45
WBR	0	0	0	0	0	0
North Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
South Leg						
Approach	0	74	74	0	50	50
Departure	0	25	25	0	84	84
Total	0	99	99	0	134	134
East Leg						
Approach	0	39	39	0	129	129
Departure	0	114	114	0	77	77
Total	0	153	153	0	206	206
West Leg						
Approach	0	40	40	0	27	27
Departure	0	14	14	0	45	45
Total	0	54	54	0	72	72
Total Approaches						
Approach	0	153	153	0	206	206
Departure	0	153	153	0	206	206
Total	0	306	306	0	412	412

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
23 Baron Avenue/Project Driveway 4						
NBL	0	19	19	0	63	63
NBT	0	21	21	0	14	14
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	2	7	9	0	24	24
SBR	0	2	2	0	7	7
EBL	0	6	6	0	4	4
EBT	0	0	0	0	0	0
EBR	0	55	55	0	37	37
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	2	9	11	0	31	31
Departure	0	27	27	0	18	18
Total	2	36	38	0	49	49
South Leg						
Approach	0	40	40	0	77	77
Departure	2	62	64	0	61	61
Total	2	102	104	0	138	138
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	0	61	61	0	41	41
Departure	0	21	21	0	70	70
Total	0	82	82	0	111	111
Total Approaches						
Approach	2	110	112	0	149	149
Departure	2	110	112	0	149	149
Total	4	220	224	0	298	298

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
24 Baron Avenue/Project Driveway 5						
NBL	0	20	20	0	66	66
NBT	0	34	34	0	73	73
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	0	60	60	0	54	54
SBR	0	2	2	0	7	7
EBL	0	6	6	0	4	4
EBT	0	0	0	0	0	0
EBR	0	58	58	0	39	39
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	0	62	62	0	61	61
Departure	0	40	40	0	77	77
Total	0	102	102	0	138	138
South Leg						
Approach	0	54	54	0	139	139
Departure	0	118	118	0	93	93
Total	0	172	172	0	232	232
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	0	64	64	0	43	43
Departure	0	22	22	0	73	73
Total	0	86	86	0	116	116
Total Approaches						
Approach	0	180	180	0	243	243
Departure	0	180	180	0	243	243
Total	0	360	360	0	486	486

Table D-1 - Existing Peak Hour Volume Summary

	AM Peak Hour			PM Peak Hour		
	Existing (2022) Volumes	Project Trips	Existing Plus Project	Existing (2022) Volumes	Project Trips	Existing Plus Project
25 Baron Avenue/Project Driveway 6						
NBL	0	21	21	0	70	70
NBT	0	48	48	0	135	135
NBR	0	0	0	0	0	0
SBL	0	0	0	0	0	0
SBT	0	117	117	0	87	87
SBR	0	2	2	0	7	7
EBL	0	6	6	0	4	4
EBT	0	0	0	0	0	0
EBR	0	61	61	0	41	41
WBL	0	0	0	0	0	0
WBT	0	0	0	0	0	0
WBR	0	0	0	0	0	0
North Leg						
Approach	0	119	119	0	94	94
Departure	0	54	54	0	139	139
Total	0	173	173	0	233	233
South Leg						
Approach	0	69	69	0	205	205
Departure	0	178	178	0	128	128
Total	0	247	247	0	333	333
East Leg						
Approach	0	0	0	0	0	0
Departure	0	0	0	0	0	0
Total	0	0	0	0	0	0
West Leg						
Approach	0	67	67	0	45	45
Departure	0	23	23	0	77	77
Total	0	90	90	0	122	122
Total Approaches						
Approach	0	255	255	0	344	344
Departure	0	255	255	0	344	344
Total	0	510	510	0	688	688

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
1 Willow Avenue/International Avenue						
NBL	349	55	16	420	15	435
NBT	293	111	16	420	12	432
NBR	14	3	0	17	0	17
SBL	62	0	0	62	0	62
SBT	430	147	5	582	4	586
SBR	86	0	0	86	0	86
EBL	22	0	0	22	0	22
EBT	70	1	0	71	0	71
EBR	193	21	5	219	5	224
WBL	14	5	0	19	0	19
WBT	267	3	0	270	0	270
WBR	53	0	0	53	0	53
North Leg						
Approach	578	147	5	730	4	734
Departure	368	111	16	495	12	507
Total	946	258	21	1,225	16	1,241
South Leg						
Approach	656	169	32	857	27	884
Departure	637	173	10	820	9	829
Total	1,293	342	42	1,677	36	1,713
East Leg						
Approach	334	8	0	342	0	342
Departure	146	4	0	150	0	150
Total	480	12	0	492	0	492
West Leg						
Approach	285	22	5	312	5	317
Departure	702	58	16	776	15	791
Total	987	80	21	1,088	20	1,108
Total Approaches						
Approach	1,853	346	42	2,241	36	2,277
Departure	1,853	346	42	2,241	36	2,277
Total	3,706	692	84	4,482	72	4,554

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
1 Willow Avenue/International Avenue						
NBL	111	37	11	159	10	169
NBT	366	212	11	589	8	597
NBR	12	12	0	24	0	24
SBL	19	0	0	19	0	19
SBT	252	184	18	454	14	468
SBR	11	0	0	11	0	11
EBL	9	0	0	9	0	9
EBT	37	3	0	40	0	40
EBR	93	60	18	171	17	188
WBL	5	11	0	16	0	16
WBT	62	2	0	64	0	64
WBR	29	0	0	29	0	29
North Leg						
Approach	282	184	18	484	14	498
Departure	404	212	11	627	8	635
Total	686	396	29	1,111	22	1,133
South Leg						
Approach	489	261	22	772	18	790
Departure	350	255	36	641	31	672
Total	839	516	58	1,413	49	1,462
East Leg						
Approach	96	13	0	109	0	109
Departure	68	15	0	83	0	83
Total	164	28	0	192	0	192
West Leg						
Approach	139	63	18	220	17	237
Departure	184	39	11	234	10	244
Total	323	102	29	454	27	481
Total Approaches						
Approach	1,006	521	58	1,585	49	1,634
Departure	1,006	521	58	1,585	49	1,634
Total	2,012	1,042	116	3,170	98	3,268

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
2 Willow Avenue/Behymer Avenue						
NBL	84	46	0	130	0	130
NBT	552	176	32	760	15	775
NBR	16	3	0	19	0	19
SBL	44	0	1	45	4	49
SBT	576	178	11	765	5	770
SBR	74	1	0	75	0	75
EBL	67	2	0	69	0	69
EBT	125	7	0	132	1	133
EBR	203	35	0	238	0	238
WBL	16	5	0	21	0	21
WBT	128	7	0	135	3	138
WBR	43	0	3	46	12	58
North Leg						
Approach	694	179	12	885	9	894
Departure	662	178	35	875	27	902
Total	1,356	357	47	1,760	36	1,796
South Leg						
Approach	652	225	32	909	15	924
Departure	795	218	11	1,024	5	1,029
Total	1,447	443	43	1,933	20	1,953
East Leg						
Approach	187	12	3	202	15	217
Departure	185	10	1	196	5	201
Total	372	22	4	398	20	418
West Leg						
Approach	395	44	0	439	1	440
Departure	286	54	0	340	3	343
Total	681	98	0	779	4	783
Total Approaches						
Approach	1,928	460	47	2,435	40	2,475
Departure	1,928	460	47	2,435	40	2,475
Total	3,856	920	94	4,870	80	4,950

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
2 Willow Avenue/Behymer Avenue						
NBL	120	50	0	170	0	170
NBT	451	267	21	739	10	749
NBR	24	12	0	36	0	36
SBL	37	0	4	41	14	55
SBT	354	263	36	653	17	670
SBR	10	2	0	12	0	12
EBL	11	1	0	12	0	12
EBT	45	9	0	54	3	57
EBR	81	47	0	128	0	128
WBL	31	11	0	42	0	42
WBT	89	9	0	98	2	100
WBR	18	0	2	20	8	28
North Leg						
Approach	401	265	40	706	31	737
Departure	480	268	23	771	18	789
Total	881	533	63	1,477	49	1,526
South Leg						
Approach	595	329	21	945	10	955
Departure	466	321	36	823	17	840
Total	1,061	650	57	1,768	27	1,795
East Leg						
Approach	138	20	2	160	10	170
Departure	106	21	4	131	17	148
Total	244	41	6	291	27	318
West Leg						
Approach	137	57	0	194	3	197
Departure	219	61	0	280	2	282
Total	356	118	0	474	5	479
Total Approaches						
Approach	1,271	671	63	2,005	54	2,059
Departure	1,271	671	63	2,005	54	2,059
Total	2,542	1,342	126	4,010	108	4,118

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
3 Willow Avenue/Shepherd Avenue						
NBL	160	25	0	185	0	185
NBT	587	285	0	872	0	872
NBR	49	161	2	212	1	213
SBL	161	74	11	246	5	251
SBT	740	530	0	1,270	0	1,270
SBR	50	151	0	201	0	201
EBL	29	78	0	107	0	107
EBT	243	138	13	394	12	406
EBR	145	5	0	150	0	150
WBL	44	244	6	294	3	297
WBT	298	248	38	584	34	618
WBR	98	99	32	229	15	244
North Leg						
Approach	951	755	11	1,717	5	1,722
Departure	714	462	32	1,208	15	1,223
Total	1,665	1,217	43	2,925	20	2,945
South Leg						
Approach	796	471	2	1,269	1	1,270
Departure	929	779	6	1,714	3	1,717
Total	1,725	1,250	8	2,983	4	2,987
East Leg						
Approach	440	591	76	1,107	52	1,159
Departure	453	373	26	852	18	870
Total	893	964	102	1,959	70	2,029
West Leg						
Approach	417	221	13	651	12	663
Departure	508	424	38	970	34	1,004
Total	925	645	51	1,621	46	1,667
Total Approaches						
Approach	2,604	2,038	102	4,744	70	4,814
Departure	2,604	2,038	102	4,744	70	4,814
Total	5,208	4,076	204	9,488	140	9,628

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
3 Willow Avenue/Shepherd Avenue						
NBL	243	36	0	279	0	279
NBT	657	725	0	1,382	0	1,382
NBR	89	373	7	469	3	472
SBL	127	150	36	313	17	330
SBT	464	537	0	1,001	0	1,001
SBR	31	166	0	197	0	197
EBL	36	216	0	252	0	252
EBT	323	285	43	651	38	689
EBR	113	10	0	123	0	123
WBL	34	300	4	338	2	340
WBT	315	231	25	571	23	594
WBR	145	128	21	294	10	304
North Leg						
Approach	622	853	36	1,511	17	1,528
Departure	838	1,069	21	1,928	10	1,938
Total	1,460	1,922	57	3,439	27	3,466
South Leg						
Approach	989	1,134	7	2,130	3	2,133
Departure	611	847	4	1,462	2	1,464
Total	1,600	1,981	11	3,592	5	3,597
East Leg						
Approach	494	659	50	1,203	35	1,238
Departure	539	808	86	1,433	58	1,491
Total	1,033	1,467	136	2,636	93	2,729
West Leg						
Approach	472	511	43	1,026	38	1,064
Departure	589	433	25	1,047	23	1,070
Total	1,061	944	68	2,073	61	2,134
Total Approaches						
Approach	2,577	3,157	136	5,870	93	5,963
Departure	2,577	3,157	136	5,870	93	5,963
Total	5,154	6,314	272	11,740	186	11,926

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
4 Minnewawa Avenue/International Avenue												
NBL	314	3	0	317	3	320	101	2	0	103	2	105
NBT	196	17	0	213	6	219	212	21	0	233	4	237
NBR	0	0	0	0	0	0	1	0	0	1	0	1
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	245	14	0	259	2	261	231	22	0	253	7	260
SBR	6	0	0	6	0	6	3	0	0	3	0	3
EBL	1	0	0	1	0	1	4	0	0	4	0	4
EBT	0	2	0	2	0	2	0	2	0	2	0	2
EBR	100	1	0	101	1	102	53	3	0	56	3	59
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	1	1	0	2	0	2	0	2	0	2	0	2
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	251	14	0	265	2	267	234	22	0	256	7	263
Departure	197	17	0	214	6	220	216	21	0	237	4	241
Total	448	31	0	479	8	487	450	43	0	493	11	504
South Leg												
Approach	510	20	0	530	9	539	314	23	0	337	6	343
Departure	345	15	0	360	3	363	284	25	0	309	10	319
Total	855	35	0	890	12	902	598	48	0	646	16	662
East Leg												
Approach	1	1	0	2	0	2	0	2	0	2	0	2
Departure	0	2	0	2	0	2	1	2	0	3	0	3
Total	1	3	0	4	0	4	1	4	0	5	0	5
West Leg												
Approach	101	3	0	104	1	105	57	5	0	62	3	65
Departure	321	4	0	325	3	328	104	4	0	108	2	110
Total	422	7	0	429	4	433	161	9	0	170	5	175
Total Approaches												
Approach	863	38	0	901	12	913	605	52	0	657	16	673
Departure	863	38	0	901	12	913	605	52	0	657	16	673
Total	1,726	76	0	1,802	24	1,826	1,210	104	0	1,314	32	1,346

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
5 Minnewawa Avenue/Behymer Avenue						
NBL	41	4	0	45	0	45
NBT	212	44	0	256	0	256
NBR	8	3	0	11	0	11
SBL	123	0	0	123	3	126
SBT	225	25	0	250	0	250
SBR	3	0	0	3	0	3
EBL	3	0	0	3	0	3
EBT	114	6	1	121	5	126
EBR	44	2	0	46	0	46
WBL	12	5	0	17	0	17
WBT	145	4	3	152	15	167
WBR	297	0	0	297	9	306
North Leg						
Approach	351	25	0	376	3	379
Departure	512	44	0	556	9	565
Total	863	69	0	932	12	944
South Leg						
Approach	261	51	0	312	0	312
Departure	281	32	0	313	0	313
Total	542	83	0	625	0	625
East Leg						
Approach	454	9	3	466	24	490
Departure	245	9	1	255	8	263
Total	699	18	4	721	32	753
West Leg						
Approach	161	8	1	170	5	175
Departure	189	8	3	200	15	215
Total	350	16	4	370	20	390
Total Approaches						
Approach	1,227	93	4	1,324	32	1,356
Departure	1,227	93	4	1,324	32	1,356
Total	2,454	186	8	2,648	64	2,712

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
5 Minnewawa Avenue/Behymer Avenue						
NBL	46	3	0	49	0	49
NBT	205	38	0	243	0	243
NBR	6	12	0	18	0	18
SBL	95	0	0	95	10	105
SBT	190	49	0	239	0	239
SBR	2	0	0	2	0	2
EBL	3	0	0	3	0	3
EBT	69	6	4	79	17	96
EBR	30	4	0	34	0	34
WBL	6	11	0	17	0	17
WBT	86	7	2	95	10	105
WBR	99	0	0	99	6	105
North Leg						
Approach	287	49	0	336	10	346
Departure	307	38	0	345	6	351
Total	594	87	0	681	16	697
South Leg						
Approach	257	53	0	310	0	310
Departure	226	64	0	290	0	290
Total	483	117	0	600	0	600
East Leg						
Approach	191	18	2	211	16	227
Departure	170	18	4	192	27	219
Total	361	36	6	403	43	446
West Leg						
Approach	102	10	4	116	17	133
Departure	134	10	2	146	10	156
Total	236	20	6	262	27	289
Total Approaches						
Approach	837	130	6	973	43	1,016
Departure	837	130	6	973	43	1,016
Total	1,674	260	12	1,946	86	2,032

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
6 Minnewawa Avenue/Shepherd Avenue												
NBL	127	64	0	191	0	191	104	91	0	195	0	195
NBT	150	107	0	257	0	257	152	337	0	489	0	489
NBR	41	26	14	81	8	89	26	50	46	122	28	150
SBL	103	102	0	205	0	205	76	75	0	151	0	151
SBT	159	300	0	459	0	459	142	204	0	346	0	346
SBR	29	88	0	117	0	117	13	90	0	103	0	103
EBL	33	51	0	84	0	84	20	117	0	137	0	137
EBT	339	283	27	649	19	668	390	439	89	918	63	981
EBR	152	89	0	241	0	241	81	72	0	153	0	153
WBL	44	38	41	123	25	148	19	41	28	88	17	105
WBT	291	299	79	669	55	724	342	436	53	831	37	868
WBR	91	42	0	133	0	133	85	116	0	201	0	201
North Leg												
Approach	291	490	0	781	0	781	231	369	0	600	0	600
Departure	274	200	0	474	0	474	257	570	0	827	0	827
Total	565	690	0	1,255	0	1,255	488	939	0	1,427	0	1,427
South Leg												
Approach	318	197	14	529	8	537	282	478	46	806	28	834
Departure	355	427	41	823	25	848	242	317	28	587	17	604
Total	673	624	55	1,352	33	1,385	524	795	74	1,393	45	1,438
East Leg												
Approach	426	379	120	925	80	1,005	446	593	81	1,120	54	1,174
Departure	483	411	41	935	27	962	492	564	135	1,191	91	1,282
Total	909	790	161	1,860	107	1,967	938	1,157	216	2,311	145	2,456
West Leg												
Approach	524	423	27	974	19	993	491	628	89	1,208	63	1,271
Departure	447	451	79	977	55	1,032	459	617	53	1,129	37	1,166
Total	971	874	106	1,951	74	2,025	950	1,245	142	2,337	100	2,437
Total Approaches												
Approach	1,559	1,489	161	3,209	107	3,316	1,450	2,068	216	3,734	145	3,879
Departure	1,559	1,489	161	3,209	107	3,316	1,450	2,068	216	3,734	145	3,879
Total	3,118	2,978	322	6,418	214	6,632	2,900	4,136	432	7,468	290	7,758

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
7 Clovis Avenue/Behymer Avenue												
NBL	0	2	0	2	0	2	0	4	0	4	0	4
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	245	6	1	252	8	260	170	14	4	188	28	216
EBR	0	3	0	3	0	3	0	4	0	4	0	4
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	454	7	3	464	25	489	191	14	2	207	17	224
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	0	2	0	2	0	2	0	4	0	4	0	4
Departure	0	3	0	3	0	3	0	4	0	4	0	4
Total	0	5	0	5	0	5	0	8	0	8	0	8
East Leg												
Approach	454	7	3	464	25	489	191	14	2	207	17	224
Departure	245	6	1	252	8	260	170	14	4	188	28	216
Total	699	13	4	716	33	749	361	28	6	395	45	440
West Leg												
Approach	245	9	1	255	8	263	170	18	4	192	28	220
Departure	454	9	3	466	25	491	191	18	2	211	17	228
Total	699	18	4	721	33	754	361	36	6	403	45	448
Total Approaches												
Approach	699	18	4	721	33	754	361	36	6	403	45	448
Departure	699	18	4	721	33	754	361	36	6	403	45	448
Total	1,398	36	8	1,442	66	1,508	722	72	12	806	90	896

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
8 Clovis Avenue/Baron Avenue												
NBL	83	0	0	83	0	83	30	0	0	30	0	30
NBT	3	83	0	86	0	86	0	168	0	168	0	168
NBR	0	80	0	80	96	176	0	94	0	94	317	411
SBL	0	3	0	3	0	3	0	1	0	1	0	1
SBT	3	135	0	138	0	138	0	124	0	124	0	124
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	49	0	49	279	328	0	103	0	103	188	291
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	3	0	3	0	3	0	1	0	1	0	1
North Leg												
Approach	3	138	0	141	0	141	0	125	0	125	0	125
Departure	3	86	0	89	0	89	0	169	0	169	0	169
Total	6	224	0	230	0	230	0	294	0	294	0	294
South Leg												
Approach	86	163	0	249	96	345	30	262	0	292	317	609
Departure	3	184	0	187	279	466	0	227	0	227	188	415
Total	89	347	0	436	375	811	30	489	0	519	505	1,024
East Leg												
Approach	0	52	0	52	279	331	0	104	0	104	188	292
Departure	0	83	0	83	96	179	0	95	0	95	317	412
Total	0	135	0	135	375	510	0	199	0	199	505	704
West Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	83	0	0	83	0	83	30	0	0	30	0	30
Total	83	0	0	83	0	83	30	0	0	30	0	30
Total Approaches												
Approach	89	353	0	442	375	817	30	491	0	521	505	1,026
Departure	89	353	0	442	375	817	30	491	0	521	505	1,026
Total	178	706	0	884	750	1,634	60	982	0	1,042	1,010	2,052

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
9 Clovis Avenue/Shepherd Avenue												
NBL	80	31	0	111	0	111	140	63	0	203	0	203
NBT	59	79	0	138	55	193	44	167	0	211	181	392
NBR	86	19	27	132	0	132	70	16	89	175	0	175
SBL	19	93	0	112	40	152	10	94	0	104	27	131
SBT	71	149	0	220	160	380	24	133	0	157	108	265
SBR	67	54	0	121	80	201	26	76	0	102	54	156
EBL	32	48	0	80	28	108	32	64	0	96	90	186
EBT	337	306	41	684	0	684	343	384	136	863	0	863
EBR	118	16	0	134	0	134	103	52	0	155	0	155
WBL	109	26	78	213	0	213	77	34	53	164	0	164
WBT	294	235	120	649	0	649	304	489	81	874	0	874
WBR	48	51	0	99	14	113	7	90	0	97	45	142
North Leg												
Approach	157	296	0	453	280	733	60	303	0	363	189	552
Departure	139	178	0	317	97	414	83	321	0	404	316	720
Total	296	474	0	770	377	1,147	143	624	0	767	505	1,272
South Leg												
Approach	225	129	27	381	55	436	254	246	89	589	181	770
Departure	298	191	78	567	160	727	204	219	53	476	108	584
Total	523	320	105	948	215	1,163	458	465	142	1,065	289	1,354
East Leg												
Approach	451	312	198	961	14	975	388	613	134	1,135	45	1,180
Departure	442	418	68	928	40	968	423	494	225	1,142	27	1,169
Total	893	730	266	1,889	54	1,943	811	1,107	359	2,277	72	2,349
West Leg												
Approach	487	370	41	898	28	926	478	500	136	1,114	90	1,204
Departure	441	320	120	881	80	961	470	628	81	1,179	54	1,233
Total	928	690	161	1,779	108	1,887	948	1,128	217	2,293	144	2,437
Total Approaches												
Approach	1,320	1,107	266	2,693	377	3,070	1,180	1,662	359	3,201	505	3,706
Departure	1,320	1,107	266	2,693	377	3,070	1,180	1,662	359	3,201	505	3,706
Total	2,640	2,214	532	5,386	754	6,140	2,360	3,324	718	6,402	1,010	7,412

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
10 Clovis Avenue/Teague Avenue												
NBL	263	2	0	265	0	265	156	1	0	157	0	157
NBT	209	106	25	340	51	391	290	271	82	643	167	810
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	273	224	72	569	147	716	223	174	49	446	99	545
SBR	183	1	6	190	12	202	60	2	4	66	8	74
EBL	73	2	2	77	4	81	67	2	7	76	14	90
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	222	1	0	223	0	223	87	2	0	89	0	89
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	456	225	78	759	159	918	283	176	53	512	107	619
Departure	282	108	27	417	55	472	357	273	89	719	181	900
Total	738	333	105	1,176	214	1,390	640	449	142	1,231	288	1,519
South Leg												
Approach	472	108	25	605	51	656	446	272	82	800	167	967
Departure	495	225	72	792	147	939	310	176	49	535	99	634
Total	967	333	97	1,397	198	1,595	756	448	131	1,335	266	1,601
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	295	3	2	300	4	304	154	4	7	165	14	179
Departure	446	3	6	455	12	467	216	3	4	223	8	231
Total	741	6	8	755	16	771	370	7	11	388	22	410
Total Approaches												
Approach	1,223	336	105	1,664	214	1,878	883	452	142	1,477	288	1,765
Departure	1,223	336	105	1,664	214	1,878	883	452	142	1,477	288	1,765
Total	2,446	672	210	3,328	428	3,756	1,766	904	284	2,954	576	3,530

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
11 Clovis Avenue/Nees Avenue												
NBL	70	83	0	153	0	153	124	188	0	312	0	312
NBT	294	102	25	421	41	462	400	264	82	746	136	882
NBR	20	0	0	20	0	20	46	0	0	46	0	46
SBL	70	0	0	70	0	70	43	0	0	43	0	43
SBT	416	215	72	703	120	823	253	170	49	472	81	553
SBR	42	2	0	44	28	72	27	2	0	29	19	48
EBL	30	1	0	31	10	41	22	2	0	24	31	55
EBT	306	45	1	352	0	352	415	53	4	472	0	472
EBR	194	147	0	341	0	341	249	144	0	393	0	393
WBL	35	0	32	67	0	67	22	0	21	43	0	43
WBT	363	33	3	399	0	399	385	62	2	449	0	449
WBR	180	0	0	180	0	180	74	0	0	74	0	74
North Leg												
Approach	528	217	72	817	148	965	323	172	49	544	100	644
Departure	504	103	25	632	51	683	496	266	82	844	167	1,011
Total	1,032	320	97	1,449	199	1,648	819	438	131	1,388	267	1,655
South Leg												
Approach	384	185	25	594	41	635	570	452	82	1,104	136	1,240
Departure	645	362	104	1,111	120	1,231	524	314	70	908	81	989
Total	1,029	547	129	1,705	161	1,866	1,094	766	152	2,012	217	2,229
East Leg												
Approach	578	33	35	646	0	646	481	62	23	566	0	566
Departure	396	45	1	442	0	442	504	53	4	561	0	561
Total	974	78	36	1,088	0	1,088	985	115	27	1,127	0	1,127
West Leg												
Approach	530	193	1	724	10	734	686	199	4	889	31	920
Departure	475	118	3	596	28	624	536	252	2	790	19	809
Total	1,005	311	4	1,320	38	1,358	1,222	451	6	1,679	50	1,729
Total Approaches												
Approach	2,020	628	133	2,781	199	2,980	2,060	885	158	3,103	267	3,370
Departure	2,020	628	133	2,781	199	2,980	2,060	885	158	3,103	267	3,370
Total	4,040	1,256	266	5,562	398	5,960	4,120	1,770	316	6,206	534	6,740

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
12 Clovis Avenue/Alluvial Avenue						
NBL	127	0	0	127	0	127
NBT	282	155	25	462	39	501
NBR	61	0	0	61	0	61
SBL	126	28	0	154	0	154
SBT	576	325	104	1,005	114	1,119
SBR	34	0	0	34	6	40
EBL	13	0	0	13	2	15
EBT	269	15	1	285	0	285
EBR	153	1	0	154	0	154
WBL	44	0	0	44	0	44
WBT	407	8	3	418	0	418
WBR	89	15	0	104	0	104
North Leg						
Approach	736	353	104	1,193	120	1,313
Departure	384	170	25	579	41	620
Total	1,120	523	129	1,772	161	1,933
South Leg						
Approach	470	155	25	650	39	689
Departure	773	326	104	1,203	114	1,317
Total	1,243	481	129	1,853	153	2,006
East Leg						
Approach	540	23	3	566	0	566
Departure	456	43	1	500	0	500
Total	996	66	4	1,066	0	1,066
West Leg						
Approach	435	16	1	452	2	454
Departure	568	8	3	579	6	585
Total	1,003	24	4	1,031	8	1,039
Total Approaches						
Approach	2,181	547	133	2,861	161	3,022
Departure	2,181	547	133	2,861	161	3,022
Total	4,362	1,094	266	5,722	322	6,044

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
12 Clovis Avenue/Alluvial Avenue						
NBL	146	1	0	147	0	147
NBT	558	395	82	1,035	129	1,164
NBR	67	0	0	67	0	67
SBL	77	30	0	107	0	107
SBT	454	264	70	788	77	865
SBR	13	0	0	13	4	17
EBL	15	0	0	15	7	22
EBT	342	11	4	357	0	357
EBR	175	1	0	176	0	176
WBL	36	0	0	36	0	36
WBT	302	18	2	322	0	322
WBR	77	39	0	116	0	116
North Leg						
Approach	544	294	70	908	81	989
Departure	650	434	82	1,166	136	1,302
Total	1,194	728	152	2,074	217	2,291
South Leg						
Approach	771	396	82	1,249	129	1,378
Departure	665	265	70	1,000	77	1,077
Total	1,436	661	152	2,249	206	2,455
East Leg						
Approach	415	57	2	474	0	474
Departure	486	41	4	531	0	531
Total	901	98	6	1,005	0	1,005
West Leg						
Approach	532	12	4	548	7	555
Departure	461	19	2	482	4	486
Total	993	31	6	1,030	11	1,041
Total Approaches						
Approach	2,262	759	158	3,179	217	3,396
Departure	2,262	759	158	3,179	217	3,396
Total	4,524	1,518	316	6,358	434	6,792

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
13 State Route 168 Westbound Ramps/Herndon Avenue												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	66	7	0	73	0	73	66	7	0	73	0	73
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	729	0	0	729	0	729	342	0	0	342	0	342
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	957	88	2	1,047	2	1,049	1,653	88	7	1,748	7	1,755
EBR	491	20	0	511	0	511	529	16	0	545	0	545
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	1,454	70	6	1,530	6	1,536	1,451	136	4	1,591	4	1,595
WBR	576	152	85	813	74	887	540	119	57	716	50	766
North Leg												
Approach	795	7	0	802	0	802	408	7	0	415	0	415
Departure	576	152	85	813	74	887	540	119	57	716	50	766
Total	1,371	159	85	1,615	74	1,689	948	126	57	1,131	50	1,181
South Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	491	20	0	511	0	511	529	16	0	545	0	545
Total	491	20	0	511	0	511	529	16	0	545	0	545
East Leg												
Approach	2,030	222	91	2,343	80	2,423	1,991	255	61	2,307	54	2,361
Departure	1,023	95	2	1,120	2	1,122	1,719	95	7	1,821	7	1,828
Total	3,053	317	93	3,463	82	3,545	3,710	350	68	4,128	61	4,189
West Leg												
Approach	1,448	108	2	1,558	2	1,560	2,182	104	7	2,293	7	2,300
Departure	2,183	70	6	2,259	6	2,265	1,793	136	4	1,933	4	1,937
Total	3,631	178	8	3,817	8	3,825	3,975	240	11	4,226	11	4,237
Total Approaches												
Approach	4,273	337	93	4,703	82	4,785	4,581	366	68	5,015	61	5,076
Departure	4,273	337	93	4,703	82	4,785	4,581	366	68	5,015	61	5,076
Total	8,546	674	186	9,406	164	9,570	9,162	732	136	10,030	122	10,152

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
14 State Route 168 Eastbound Ramps/Herndon Avenue						
NBL	454	9	0	463	0	463
NBT	0	0	0	0	0	0
NBR	479	75	19	573	25	598
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	810	85	2	897	2	899
EBR	213	10	0	223	0	223
WBL	0	0	0	0	0	0
WBT	1,576	208	91	1,875	80	1,955
WBR	79	4	0	83	0	83
North Leg						
Approach	0	0	0	0	0	0
Departure	79	4	0	83	0	83
Total	79	4	0	83	0	83
South Leg						
Approach	933	84	19	1,036	25	1,061
Departure	213	10	0	223	0	223
Total	1,146	94	19	1,259	25	1,284
East Leg						
Approach	1,655	212	91	1,958	80	2,038
Departure	1,289	160	21	1,470	27	1,497
Total	2,944	372	112	3,428	107	3,535
West Leg						
Approach	1,023	95	2	1,120	2	1,122
Departure	2,030	217	91	2,338	80	2,418
Total	3,053	312	93	3,458	82	3,540
Total Approaches						
Approach	3,611	391	112	4,114	107	4,221
Departure	3,611	391	112	4,114	107	4,221
Total	7,222	782	224	8,228	214	8,442

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
14 State Route 168 Eastbound Ramps/Herndon Avenue						
NBL	497	23	0	520	0	520
NBT	0	0	0	0	0	0
NBR	677	165	61	903	84	987
SBL	0	0	0	0	0	0
SBT	0	0	0	0	0	0
SBR	0	0	0	0	0	0
EBL	0	0	0	0	0	0
EBT	1,359	89	7	1,455	7	1,462
EBR	360	7	0	367	0	367
WBL	0	0	0	0	0	0
WBT	1,494	213	61	1,768	54	1,822
WBR	184	15	0	199	0	199
North Leg						
Approach	0	0	0	0	0	0
Departure	184	15	0	199	0	199
Total	184	15	0	199	0	199
South Leg						
Approach	1,174	188	61	1,423	84	1,507
Departure	360	7	0	367	0	367
Total	1,534	195	61	1,790	84	1,874
East Leg						
Approach	1,678	228	61	1,967	54	2,021
Departure	2,036	254	68	2,358	91	2,449
Total	3,714	482	129	4,325	145	4,470
West Leg						
Approach	1,719	96	7	1,822	7	1,829
Departure	1,991	236	61	2,288	54	2,342
Total	3,710	332	68	4,110	61	4,171
Total Approaches						
Approach	4,571	512	129	5,212	145	5,357
Departure	4,571	512	129	5,212	145	5,357
Total	9,142	1,024	258	10,424	290	10,714

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
15 Clovis Avenue/Herndon Avenue						
NBL	232	18	0	250	0	250
NBT	255	41	3	299	8	307
NBR	120	2	0	122	0	122
SBL	161	24	3	188	9	197
SBT	283	93	9	385	25	410
SBR	402	151	91	644	80	724
EBL	243	64	21	328	28	356
EBT	832	55	0	887	0	887
EBR	214	35	0	249	0	249
WBL	148	4	0	152	0	152
WBT	1,021	42	0	1,063	0	1,063
WBR	157	16	1	174	3	177
North Leg						
Approach	846	268	103	1,217	114	1,331
Departure	655	121	25	801	39	840
Total	1,501	389	128	2,018	153	2,171
South Leg						
Approach	607	61	3	671	8	679
Departure	645	132	9	786	25	811
Total	1,252	193	12	1,457	33	1,490
East Leg						
Approach	1,326	62	1	1,389	3	1,392
Departure	1,113	81	3	1,197	9	1,206
Total	2,439	143	4	2,586	12	2,598
West Leg						
Approach	1,289	154	21	1,464	28	1,492
Departure	1,655	211	91	1,957	80	2,037
Total	2,944	365	112	3,421	108	3,529
Total Approaches						
Approach	4,068	545	128	4,741	153	4,894
Departure	4,068	545	128	4,741	153	4,894
Total	8,136	1,090	256	9,482	306	9,788

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
15 Clovis Avenue/Herndon Avenue						
NBL	350	39	0	389	0	389
NBT	402	119	11	532	28	560
NBR	276	4	0	280	0	280
SBL	271	37	2	310	6	316
SBT	262	76	6	344	17	361
SBR	266	103	61	430	54	484
EBL	366	153	68	587	90	677
EBT	1,368	60	0	1,428	0	1,428
EBR	302	28	0	330	0	330
WBL	316	3	0	319	0	319
WBT	1,062	75	0	1,137	0	1,137
WBR	132	57	4	193	10	203
North Leg						
Approach	799	216	69	1,084	77	1,161
Departure	900	329	83	1,312	128	1,440
Total	1,699	545	152	2,396	205	2,601
South Leg						
Approach	1,028	162	11	1,201	28	1,229
Departure	880	107	6	993	17	1,010
Total	1,908	269	17	2,194	45	2,239
East Leg						
Approach	1,510	135	4	1,649	10	1,659
Departure	1,915	101	2	2,018	6	2,024
Total	3,425	236	6	3,667	16	3,683
West Leg						
Approach	2,036	241	68	2,345	90	2,435
Departure	1,678	217	61	1,956	54	2,010
Total	3,714	458	129	4,301	144	4,445
Total Approaches						
Approach	5,373	754	152	6,279	205	6,484
Departure	5,373	754	152	6,279	205	6,484
Total	10,746	1,508	304	12,558	410	12,968

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
16 Baron Avenue/Behymer Avenue												
NBL	0	0	0	0	25	25	0	0	0	0	17	17
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	4	0	4	3	7	0	9	0	9	2	11
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	245	3	1	249	0	249	170	2	4	176	0	176
EBR	0	0	0	0	8	8	0	0	0	0	28	28
WBL	2	7	0	9	1	10	0	8	0	8	3	11
WBT	454	2	3	459	0	459	191	3	2	196	0	196
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	0	4	0	4	28	32	0	9	0	9	19	28
Departure	2	7	0	9	9	18	0	8	0	8	31	39
Total	2	11	0	13	37	50	0	17	0	17	50	67
East Leg												
Approach	456	9	3	468	1	469	191	11	2	204	3	207
Departure	245	7	1	253	3	256	170	11	4	185	2	187
Total	701	16	4	721	4	725	361	22	6	389	5	394
West Leg												
Approach	245	3	1	249	8	257	170	2	4	176	28	204
Departure	454	2	3	459	25	484	191	3	2	196	17	213
Total	699	5	4	708	33	741	361	5	6	372	45	417
Total Approaches												
Approach	701	16	4	721	37	758	361	22	6	389	50	439
Departure	701	16	4	721	37	758	361	22	6	389	50	439
Total	1,402	32	8	1,442	74	1,516	722	44	12	778	100	878

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
17 Baron Avenue/Perrin Avenue												
NBL	0	0	0	0	36	36	0	0	0	0	118	118
NBT	0	4	0	4	60	64	0	9	0	9	198	207
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	7	0	7	175	182	0	8	0	8	118	126
SBR	0	0	0	0	3	3	0	0	0	0	10	10
EBL	0	0	0	0	9	9	0	0	0	0	6	6
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	104	104	0	0	0	0	70	70
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	7	0	7	178	185	0	8	0	8	128	136
Departure	0	4	0	4	69	73	0	9	0	9	204	213
Total	0	11	0	11	247	258	0	17	0	17	332	349
South Leg												
Approach	0	4	0	4	96	100	0	9	0	9	316	325
Departure	0	7	0	7	279	286	0	8	0	8	188	196
Total	0	11	0	11	375	386	0	17	0	17	504	521
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	0	0	0	0	113	113	0	0	0	0	76	76
Departure	0	0	0	0	39	39	0	0	0	0	128	128
Total	0	0	0	0	152	152	0	0	0	0	204	204
Total Approaches												
Approach	0	11	0	11	387	398	0	17	0	17	520	537
Departure	0	11	0	11	387	398	0	17	0	17	520	537
Total	0	22	0	22	774	796	0	34	0	34	1,040	1,074

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
18 Sunnyside Avenue/Shepherd Avenue												
NBL	54	53	0	107	3	110	80	93	0	173	10	183
NBT	11	0	4	15	0	15	11	0	14	25	0	25
NBR	27	11	11	49	0	49	31	7	36	74	0	74
SBL	2	0	22	24	0	24	4	0	15	19	0	19
SBT	14	0	44	58	0	58	13	0	30	43	0	43
SBR	9	24	66	99	0	99	9	54	45	108	0	108
EBL	8	32	23	63	0	63	9	49	75	133	0	133
EBT	325	339	46	710	31	741	342	373	150	865	21	886
EBR	106	80	0	186	9	195	70	84	0	154	6	160
WBL	31	4	32	67	0	67	29	12	21	62	0	62
WBT	371	207	132	710	11	721	296	495	89	880	35	915
WBR	3	0	8	11	0	11	6	0	25	31	0	31
North Leg												
Approach	25	24	132	181	0	181	26	54	90	170	0	170
Departure	22	32	35	89	0	89	26	49	114	189	0	189
Total	47	56	167	270	0	270	52	103	204	359	0	359
South Leg												
Approach	92	64	15	171	3	174	122	100	50	272	10	282
Departure	151	84	76	311	9	320	112	96	51	259	6	265
Total	243	148	91	482	12	494	234	196	101	531	16	547
East Leg												
Approach	405	211	172	788	11	799	331	507	135	973	35	1,008
Departure	354	350	79	783	31	814	377	380	201	958	21	979
Total	759	561	251	1,571	42	1,613	708	887	336	1,931	56	1,987
West Leg												
Approach	439	451	69	959	40	999	421	506	225	1,152	27	1,179
Departure	434	284	198	916	14	930	385	642	134	1,161	45	1,206
Total	873	735	267	1,875	54	1,929	806	1,148	359	2,313	72	2,385
Total Approaches												
Approach	961	750	388	2,099	54	2,153	900	1,167	500	2,567	72	2,639
Departure	961	750	388	2,099	54	2,153	900	1,167	500	2,567	72	2,639
Total	1,922	1,500	776	4,198	108	4,306	1,800	2,334	1,000	5,134	144	5,278

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
19 Fowler Avenue/Shepherd Avenue						
NBL	141	47	16	204	4	208
NBT	92	5	0	97	0	97
NBR	34	4	0	38	0	38
SBL	185	0	0	185	0	185
SBT	125	1	16	142	0	142
SBR	18	9	0	27	0	27
EBL	20	12	0	32	0	32
EBT	281	253	22	556	18	574
EBR	51	77	0	128	12	140
WBL	36	1	0	37	0	37
WBT	279	154	8	441	6	447
WBR	370	0	0	370	0	370
North Leg						
Approach	328	10	16	354	0	354
Departure	482	17	0	499	0	499
Total	810	27	16	853	0	853
South Leg						
Approach	267	56	16	339	4	343
Departure	212	79	16	307	12	319
Total	479	135	32	646	16	662
East Leg						
Approach	685	155	8	848	6	854
Departure	500	257	22	779	18	797
Total	1,185	412	30	1,627	24	1,651
West Leg						
Approach	352	342	22	716	30	746
Departure	438	210	24	672	10	682
Total	790	552	46	1,388	40	1,428
Total Approaches						
Approach	1,632	563	62	2,257	40	2,297
Departure	1,632	563	62	2,257	40	2,297
Total	3,264	1,126	124	4,514	80	4,594

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
19 Fowler Avenue/Shepherd Avenue						
NBL	109	105	54	268	14	282
NBT	119	3	0	122	0	122
NBR	73	3	0	76	0	76
SBL	110	0	0	110	0	110
SBT	112	6	11	129	0	129
SBR	14	22	0	36	0	36
EBL	23	20	0	43	0	43
EBT	276	282	15	573	12	585
EBR	75	78	0	153	8	161
WBL	47	5	0	52	0	52
WBT	240	373	25	638	21	659
WBR	128	0	0	128	0	128
North Leg						
Approach	236	28	11	275	0	275
Departure	270	23	0	293	0	293
Total	506	51	11	568	0	568
South Leg						
Approach	301	111	54	466	14	480
Departure	234	89	11	334	8	342
Total	535	200	65	800	22	822
East Leg						
Approach	415	378	25	818	21	839
Departure	459	285	15	759	12	771
Total	874	663	40	1,577	33	1,610
West Leg						
Approach	374	380	15	769	20	789
Departure	363	500	79	942	35	977
Total	737	880	94	1,711	55	1,766
Total Approaches						
Approach	1,326	897	105	2,328	55	2,383
Departure	1,326	897	105	2,328	55	2,383
Total	2,652	1,794	210	4,656	110	4,766

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
20 Hammel Avenue/Project Driveway 1												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	3	3	0	0	0	0	10	10
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	9	9	0	0	0	0	6	6
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	0	0	0	0	3	3	0	0	0	0	10	10
Departure	0	0	0	0	9	9	0	0	0	0	6	6
Total	0	0	0	0	12	12	0	0	0	0	16	16
East Leg												
Approach	0	0	0	0	9	9	0	0	0	0	6	6
Departure	0	0	0	0	3	3	0	0	0	0	10	10
Total	0	0	0	0	12	12	0	0	0	0	16	16
West Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches												
Approach	0	0	0	0	12	12	0	0	0	0	16	16
Departure	0	0	0	0	12	12	0	0	0	0	16	16
Total	0	0	0	0	24	24	0	0	0	0	32	32

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
21 Hammel Avenue/Project Driveway 2												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	3	3	0	0	0	0	10	10
NBR	0	0	0	0	11	11	0	0	0	0	35	35
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	9	9	0	0	0	0	6	6
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	31	31	0	0	0	0	21	21
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	9	9	0	0	0	0	6	6
Departure	0	0	0	0	3	3	0	0	0	0	10	10
Total	0	0	0	0	12	12	0	0	0	0	16	16
South Leg												
Approach	0	0	0	0	14	14	0	0	0	0	45	45
Departure	0	0	0	0	40	40	0	0	0	0	27	27
Total	0	0	0	0	54	54	0	0	0	0	72	72
East Leg												
Approach	0	0	0	0	31	31	0	0	0	0	21	21
Departure	0	0	0	0	11	11	0	0	0	0	35	35
Total	0	0	0	0	42	42	0	0	0	0	56	56
West Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
Total Approaches												
Approach	0	0	0	0	54	54	0	0	0	0	72	72
Departure	0	0	0	0	54	54	0	0	0	0	72	72
Total	0	0	0	0	108	108	0	0	0	0	144	144

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
22 Project Driveway 3/Perrin Avenue												
NBL	0	0	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	74	74	0	0	0	0	50	50
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	40	40	0	0	0	0	27	27
EBR	0	0	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	0	25	25	0	0	0	0	84	84
WBT	0	0	0	0	14	14	0	0	0	0	45	45
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
South Leg												
Approach	0	0	0	0	74	74	0	0	0	0	50	50
Departure	0	0	0	0	25	25	0	0	0	0	84	84
Total	0	0	0	0	99	99	0	0	0	0	134	134
East Leg												
Approach	0	0	0	0	39	39	0	0	0	0	129	129
Departure	0	0	0	0	114	114	0	0	0	0	77	77
Total	0	0	0	0	153	153	0	0	0	0	206	206
West Leg												
Approach	0	0	0	0	40	40	0	0	0	0	27	27
Departure	0	0	0	0	14	14	0	0	0	0	45	45
Total	0	0	0	0	54	54	0	0	0	0	72	72
Total Approaches												
Approach	0	0	0	0	153	153	0	0	0	0	206	206
Departure	0	0	0	0	153	153	0	0	0	0	206	206
Total	0	0	0	0	306	306	0	0	0	0	412	412

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
23 Baron Avenue/Project Driveway 4												
NBL	0	0	0	0	19	19	0	0	0	0	63	63
NBT	0	4	0	4	21	25	0	9	0	9	14	23
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	2	7	0	9	7	16	0	8	0	8	24	32
SBR	0	0	0	0	2	2	0	0	0	0	7	7
EBL	0	0	0	0	6	6	0	0	0	0	4	4
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	55	55	0	0	0	0	37	37
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	2	7	0	9	9	18	0	8	0	8	31	39
Departure	0	4	0	4	27	31	0	9	0	9	18	27
Total	2	11	0	13	36	49	0	17	0	17	49	66
South Leg												
Approach	0	4	0	4	40	44	0	9	0	9	77	86
Departure	2	7	0	9	62	71	0	8	0	8	61	69
Total	2	11	0	13	102	115	0	17	0	17	138	155
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	0	0	0	0	61	61	0	0	0	0	41	41
Departure	0	0	0	0	21	21	0	0	0	0	70	70
Total	0	0	0	0	82	82	0	0	0	0	111	111
Total Approaches												
Approach	2	11	0	13	110	123	0	17	0	17	149	166
Departure	2	11	0	13	110	123	0	17	0	17	149	166
Total	4	22	0	26	220	246	0	34	0	34	298	332

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
24 Baron Avenue/Project Driveway 5												
NBL	0	0	0	0	20	20	0	0	0	0	66	66
NBT	0	4	0	4	34	38	0	9	0	9	73	82
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	7	0	7	60	67	0	8	0	8	54	62
SBR	0	0	0	0	2	2	0	0	0	0	7	7
EBL	0	0	0	0	6	6	0	0	0	0	4	4
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	58	58	0	0	0	0	39	39
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	7	0	7	62	69	0	8	0	8	61	69
Departure	0	4	0	4	40	44	0	9	0	9	77	86
Total	0	11	0	11	102	113	0	17	0	17	138	155
South Leg												
Approach	0	4	0	4	54	58	0	9	0	9	139	148
Departure	0	7	0	7	118	125	0	8	0	8	93	101
Total	0	11	0	11	172	183	0	17	0	17	232	249
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	0	0	0	0	64	64	0	0	0	0	43	43
Departure	0	0	0	0	22	22	0	0	0	0	73	73
Total	0	0	0	0	86	86	0	0	0	0	116	116
Total Approaches												
Approach	0	11	0	11	180	191	0	17	0	17	243	260
Departure	0	11	0	11	180	191	0	17	0	17	243	260
Total	0	22	0	22	360	382	0	34	0	34	486	520

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

	AM Peak Hour						PM Peak Hour					
	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project	Existing (2022) Without Project	Cumulative Project Trips	Shepherd North Trips	Near-Term (2026) Without Project	Project Trips	Near-Term (2026) Plus Project
25 Baron Avenue/Project Driveway 6												
NBL	0	0	0	0	21	21	0	0	0	0	70	70
NBT	0	4	0	4	48	52	0	9	0	9	135	144
NBR	0	0	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0	0	0
SBT	0	7	0	7	117	124	0	8	0	8	87	95
SBR	0	0	0	0	2	2	0	0	0	0	7	7
EBL	0	0	0	0	6	6	0	0	0	0	4	4
EBT	0	0	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	61	61	0	0	0	0	41	41
WBL	0	0	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0	0	0
North Leg												
Approach	0	7	0	7	119	126	0	8	0	8	94	102
Departure	0	4	0	4	54	58	0	9	0	9	139	148
Total	0	11	0	11	173	184	0	17	0	17	233	250
South Leg												
Approach	0	4	0	4	69	73	0	9	0	9	205	214
Departure	0	7	0	7	178	185	0	8	0	8	128	136
Total	0	11	0	11	247	258	0	17	0	17	333	350
East Leg												
Approach	0	0	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
West Leg												
Approach	0	0	0	0	67	67	0	0	0	0	45	45
Departure	0	0	0	0	23	23	0	0	0	0	77	77
Total	0	0	0	0	90	90	0	0	0	0	122	122
Total Approaches												
Approach	0	11	0	11	255	266	0	17	0	17	344	361
Departure	0	11	0	11	255	266	0	17	0	17	344	361
Total	0	22	0	22	510	532	0	34	0	34	688	722

Table D-2 - Near-Term (2026) Peak Hour Volume Summary

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
1 Willow Avenue/International Avenue										
NBL	424	16	440	15	455	155	11	166	10	176
NBT	424	16	440	12	452	607	11	618	8	626
NBR	28	0	28	0	28	73	0	73	0	73
SBL	65	0	65	0	65	67	0	67	0	67
SBT	606	5	611	4	615	458	18	476	14	490
SBR	90	0	90	0	90	12	0	12	0	12
EBL	23	0	23	0	23	9	0	9	0	9
EBT	93	0	93	0	93	125	0	125	0	125
EBR	225	5	230	5	235	161	18	179	17	196
WBL	42	0	42	0	42	17	0	17	0	17
WBT	447	0	447	0	447	103	0	103	0	103
WBR	77	0	77	0	77	56	0	56	0	56
North Leg										
Approach	761	5	766	4	770	537	18	555	14	569
Departure	524	16	540	12	552	672	11	683	8	691
Total	1,285	21	1,306	16	1,322	1,209	29	1,238	22	1,260
South Leg										
Approach	876	32	908	27	935	835	22	857	18	875
Departure	873	10	883	9	892	636	36	672	31	703
Total	1,749	42	1,791	36	1,827	1,471	58	1,529	49	1,578
East Leg										
Approach	566	0	566	0	566	176	0	176	0	176
Departure	186	0	186	0	186	265	0	265	0	265
Total	752	0	752	0	752	441	0	441	0	441
West Leg										
Approach	341	5	346	5	351	295	18	313	17	330
Departure	961	16	977	15	992	270	11	281	10	291
Total	1,302	21	1,323	20	1,343	565	29	594	27	621
Total Approaches										
Approach	2,544	42	2,586	36	2,622	1,843	58	1,901	49	1,950
Departure	2,544	42	2,586	36	2,622	1,843	58	1,901	49	1,950
Total	5,088	84	5,172	72	5,244	3,686	116	3,802	98	3,900

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
2 Willow Avenue/Behymer Avenue										
NBL	137	0	137	0	137	179	0	179	0	179
NBT	764	32	796	15	811	754	21	775	10	785
NBR	20	0	20	0	20	180	0	180	0	180
SBL	54	1	55	4	59	100	4	104	14	118
SBT	792	11	803	5	808	648	36	684	17	701
SBR	79	0	79	0	79	13	0	13	0	13
EBL	72	0	72	0	72	13	0	13	0	13
EBT	156	0	156	1	157	118	0	118	3	121
EBR	250	0	250	0	250	134	0	134	0	134
WBL	99	0	99	0	99	128	0	128	0	128
WBT	362	0	362	3	365	140	0	140	2	142
WBR	156	3	159	12	171	42	2	44	8	52
North Leg										
Approach	925	12	937	9	946	761	40	801	31	832
Departure	992	35	1,027	27	1,054	809	23	832	18	850
Total	1,917	47	1,964	36	2,000	1,570	63	1,633	49	1,682
South Leg										
Approach	921	32	953	15	968	1,113	21	1,134	10	1,144
Departure	1,141	11	1,152	5	1,157	910	36	946	17	963
Total	2,062	43	2,105	20	2,125	2,023	57	2,080	27	2,107
East Leg										
Approach	617	3	620	15	635	310	2	312	10	322
Departure	230	1	231	5	236	398	4	402	17	419
Total	847	4	851	20	871	708	6	714	27	741
West Leg										
Approach	478	0	478	1	479	265	0	265	3	268
Departure	578	0	578	3	581	332	0	332	2	334
Total	1,056	0	1,056	4	1,060	597	0	597	5	602
Total Approaches										
Approach	2,941	47	2,988	40	3,028	2,449	63	2,512	54	2,566
Departure	2,941	47	2,988	40	3,028	2,449	63	2,512	54	2,566
Total	5,882	94	5,976	80	6,056	4,898	126	5,024	108	5,132

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
3 Willow Avenue/Shepherd Avenue										
NBL	390	0	390	0	390	293	0	293	0	293
NBT	916	0	916	0	916	1,451	0	1,451	0	1,451
NBR	318	2	320	1	321	485	7	492	3	495
SBL	247	11	258	5	263	291	36	327	17	344
SBT	1,334	0	1,334	0	1,334	1,051	0	1,051	0	1,051
SBR	211	0	211	0	211	207	0	207	0	207
EBL	112	0	112	0	112	265	0	265	0	265
EBT	394	13	407	12	419	638	43	681	38	719
EBR	286	0	286	0	286	387	0	387	0	387
WBL	302	6	308	3	311	351	4	355	2	357
WBT	573	38	611	34	645	573	25	598	23	621
WBR	207	32	239	15	254	287	21	308	10	318
North Leg										
Approach	1,792	11	1,803	5	1,808	1,549	36	1,585	17	1,602
Departure	1,235	32	1,267	15	1,282	2,003	21	2,024	10	2,034
Total	3,027	43	3,070	20	3,090	3,552	57	3,609	27	3,636
South Leg										
Approach	1,624	2	1,626	1	1,627	2,229	7	2,236	3	2,239
Departure	1,922	6	1,928	3	1,931	1,789	4	1,793	2	1,795
Total	3,546	8	3,554	4	3,558	4,018	11	4,029	5	4,034
East Leg										
Approach	1,082	76	1,158	52	1,210	1,211	50	1,261	35	1,296
Departure	959	26	985	18	1,003	1,414	86	1,500	58	1,558
Total	2,041	102	2,143	70	2,213	2,625	136	2,761	93	2,854
West Leg										
Approach	792	13	805	12	817	1,290	43	1,333	38	1,371
Departure	1,174	38	1,212	34	1,246	1,073	25	1,098	23	1,121
Total	1,966	51	2,017	46	2,063	2,363	68	2,431	61	2,492
Total Approaches										
Approach	5,290	102	5,392	70	5,462	6,279	136	6,415	93	6,508
Departure	5,290	102	5,392	70	5,462	6,279	136	6,415	93	6,508
Total	10,580	204	10,784	140	10,924	12,558	272	12,830	186	13,016

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
4 Minnewawa Avenue/International Avenue										
NBL	437	0	437	3	440	174	0	174	2	176
NBT	238	0	238	6	244	254	0	254	4	258
NBR	0	0	0	0	0	37	0	37	0	37
SBL	0	0	0	0	0	0	0	0	0	0
SBT	291	0	291	2	293	268	0	268	7	275
SBR	29	0	29	0	29	30	0	30	0	30
EBL	5	0	5	0	5	70	0	70	0	70
EBT	2	0	2	0	2	2	0	2	0	2
EBR	146	0	146	1	147	155	0	155	3	158
WBL	0	0	0	0	0	0	0	0	0	0
WBT	50	0	50	0	50	2	0	2	0	2
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	320	0	320	2	322	298	0	298	7	305
Departure	243	0	243	6	249	324	0	324	4	328
Total	563	0	563	8	571	622	0	622	11	633
South Leg										
Approach	675	0	675	9	684	465	0	465	6	471
Departure	437	0	437	3	440	423	0	423	10	433
Total	1,112	0	1,112	12	1,124	888	0	888	16	904
East Leg										
Approach	50	0	50	0	50	2	0	2	0	2
Departure	2	0	2	0	2	39	0	39	0	39
Total	52	0	52	0	52	41	0	41	0	41
West Leg										
Approach	153	0	153	1	154	227	0	227	3	230
Departure	516	0	516	3	519	206	0	206	2	208
Total	669	0	669	4	673	433	0	433	5	438
Total Approaches										
Approach	1,198	0	1,198	12	1,210	992	0	992	16	1,008
Departure	1,198	0	1,198	12	1,210	992	0	992	16	1,008
Total	2,396	0	2,396	24	2,420	1,984	0	1,984	32	2,016

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
5 Minnewawa Avenue/Behymer Avenue										
NBL	115	0	115	0	115	149	0	149	0	149
NBT	269	0	269	0	269	430	0	430	0	430
NBR	12	0	12	0	12	28	0	28	0	28
SBL	163	0	163	3	166	193	0	193	10	203
SBT	589	0	589	0	589	254	0	254	0	254
SBR	8	0	8	0	8	3	0	3	0	3
EBL	3	0	3	0	3	7	0	7	0	7
EBT	127	1	128	5	133	353	4	357	17	374
EBR	96	0	96	0	96	101	0	101	0	101
WBL	43	0	43	0	43	18	0	18	0	18
WBT	508	3	511	15	526	206	2	208	10	218
WBR	371	0	371	9	380	154	0	154	6	160
North Leg										
Approach	760	0	760	3	763	450	0	450	10	460
Departure	643	0	643	9	652	591	0	591	6	597
Total	1,403	0	1,403	12	1,415	1,041	0	1,041	16	1,057
South Leg										
Approach	396	0	396	0	396	607	0	607	0	607
Departure	728	0	728	0	728	373	0	373	0	373
Total	1,124	0	1,124	0	1,124	980	0	980	0	980
East Leg										
Approach	922	3	925	24	949	378	2	380	16	396
Departure	302	1	303	8	311	574	4	578	27	605
Total	1,224	4	1,228	32	1,260	952	6	958	43	1,001
West Leg										
Approach	226	1	227	5	232	461	4	465	17	482
Departure	631	3	634	15	649	358	2	360	10	370
Total	857	4	861	20	881	819	6	825	27	852
Total Approaches										
Approach	2,304	4	2,308	32	2,340	1,896	6	1,902	43	1,945
Departure	2,304	4	2,308	32	2,340	1,896	6	1,902	43	1,945
Total	4,608	8	4,616	64	4,680	3,792	12	3,804	86	3,890

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
6 Minnewawa Avenue/Shepherd Avenue										
NBL	218	0	218	0	218	313	0	313	0	313
NBT	310	0	310	0	310	681	0	681	0	681
NBR	70	14	84	8	92	80	46	126	28	154
SBL	331	0	331	0	331	159	0	159	0	159
SBT	892	0	892	0	892	504	0	504	0	504
SBR	123	0	123	0	123	108	0	108	0	108
EBL	88	0	88	0	88	144	0	144	0	144
EBT	653	27	680	19	699	870	89	959	63	1,022
EBR	364	0	364	0	364	218	0	218	0	218
WBL	86	41	127	25	152	63	28	91	17	108
WBT	620	79	699	55	754	817	53	870	37	907
WBR	140	0	140	0	140	211	0	211	0	211
North Leg										
Approach	1,346	0	1,346	0	1,346	771	0	771	0	771
Departure	538	0	538	0	538	1,036	0	1,036	0	1,036
Total	1,884	0	1,884	0	1,884	1,807	0	1,807	0	1,807
South Leg										
Approach	598	14	612	8	620	1,074	46	1,120	28	1,148
Departure	1,342	41	1,383	25	1,408	785	28	813	17	830
Total	1,940	55	1,995	33	2,028	1,859	74	1,933	45	1,978
East Leg										
Approach	846	120	966	80	1,046	1,091	81	1,172	54	1,226
Departure	1,054	41	1,095	27	1,122	1,109	135	1,244	91	1,335
Total	1,900	161	2,061	107	2,168	2,200	216	2,416	145	2,561
West Leg										
Approach	1,105	27	1,132	19	1,151	1,232	89	1,321	63	1,384
Departure	961	79	1,040	55	1,095	1,238	53	1,291	37	1,328
Total	2,066	106	2,172	74	2,246	2,470	142	2,612	100	2,712
Total Approaches										
Approach	3,895	161	4,056	107	4,163	4,168	216	4,384	145	4,529
Departure	3,895	161	4,056	107	4,163	4,168	216	4,384	145	4,529
Total	7,790	322	8,112	214	8,326	8,336	432	8,768	290	9,058

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
7 Clovis Avenue/Behymer Avenue										
NBL	118	0	118	0	118	178	0	178	0	178
NBT	172	0	172	0	172	522	0	522	0	522
NBR	53	0	53	0	53	139	0	139	0	139
SBL	164	0	164	0	164	176	0	176	0	176
SBT	450	0	450	0	450	384	0	384	0	384
SBR	33	0	33	0	33	10	0	10	0	10
EBL	18	0	18	0	18	11	0	11	0	11
EBT	264	1	265	8	273	328	4	332	28	360
EBR	171	0	171	0	171	80	0	80	0	80
WBL	211	0	211	0	211	46	0	46	0	46
WBT	561	3	564	25	589	224	2	226	17	243
WBR	217	0	217	0	217	112	0	112	0	112
North Leg										
Approach	647	0	647	0	647	570	0	570	0	570
Departure	407	0	407	0	407	645	0	645	0	645
Total	1,054	0	1,054	0	1,054	1,215	0	1,215	0	1,215
South Leg										
Approach	343	0	343	0	343	839	0	839	0	839
Departure	832	0	832	0	832	510	0	510	0	510
Total	1,175	0	1,175	0	1,175	1,349	0	1,349	0	1,349
East Leg										
Approach	989	3	992	25	1,017	382	2	384	17	401
Departure	481	1	482	8	490	643	4	647	28	675
Total	1,470	4	1,474	33	1,507	1,025	6	1,031	45	1,076
West Leg										
Approach	453	1	454	8	462	419	4	423	28	451
Departure	712	3	715	25	740	412	2	414	17	431
Total	1,165	4	1,169	33	1,202	831	6	837	45	882
Total Approaches										
Approach	2,432	4	2,436	33	2,469	2,210	6	2,216	45	2,261
Departure	2,432	4	2,436	33	2,469	2,210	6	2,216	45	2,261
Total	4,864	8	4,872	66	4,938	4,420	12	4,432	90	4,522

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
8 Clovis Avenue/Baron Avenue										
NBL	87	0	87	0	87	32	0	32	0	32
NBT	455	0	455	0	455	947	0	947	0	947
NBR	84	0	84	96	180	99	0	99	317	416
SBL	30	0	30	0	30	61	0	61	0	61
SBT	826	0	826	0	826	526	0	526	0	526
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	51	0	51	279	330	108	0	108	188	296
WBT	0	0	0	0	0	0	0	0	0	0
WBR	36	0	36	0	36	9	0	9	0	9
North Leg										
Approach	856	0	856	0	856	587	0	587	0	587
Departure	491	0	491	0	491	956	0	956	0	956
Total	1,347	0	1,347	0	1,347	1,543	0	1,543	0	1,543
South Leg										
Approach	626	0	626	96	722	1,078	0	1,078	317	1,395
Departure	877	0	877	279	1,156	634	0	634	188	822
Total	1,503	0	1,503	375	1,878	1,712	0	1,712	505	2,217
East Leg										
Approach	87	0	87	279	366	117	0	117	188	305
Departure	114	0	114	96	210	160	0	160	317	477
Total	201	0	201	375	576	277	0	277	505	782
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	87	0	87	0	87	32	0	32	0	32
Total	87	0	87	0	87	32	0	32	0	32
Total Approaches										
Approach	1,569	0	1,569	375	1,944	1,782	0	1,782	505	2,287
Departure	1,569	0	1,569	375	1,944	1,782	0	1,782	505	2,287
Total	3,138	0	3,138	750	3,888	3,564	0	3,564	1,010	4,574

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
9 Clovis Avenue/Shepherd Avenue										
NBL	117	0	117	0	117	222	0	222	0	222
NBT	142	0	142	55	197	495	0	495	181	676
NBR	146	27	173	0	173	277	89	366	0	366
SBL	119	0	119	40	159	109	0	109	27	136
SBT	437	0	437	160	597	165	0	165	108	273
SBR	206	0	206	80	286	107	0	107	54	161
EBL	82	0	82	28	110	101	0	101	90	191
EBT	675	41	716	0	716	763	136	899	0	899
EBR	210	0	210	0	210	163	0	163	0	163
WBL	239	78	317	0	317	234	53	287	0	287
WBT	555	120	675	0	675	833	81	914	0	914
WBR	152	0	152	14	166	102	0	102	45	147
North Leg										
Approach	762	0	762	280	1,042	381	0	381	189	570
Departure	376	0	376	97	473	698	0	698	316	1,014
Total	1,138	0	1,138	377	1,515	1,079	0	1,079	505	1,584
South Leg										
Approach	405	27	432	55	487	994	89	1,083	181	1,264
Departure	886	78	964	160	1,124	562	53	615	108	723
Total	1,291	105	1,396	215	1,611	1,556	142	1,698	289	1,987
East Leg										
Approach	946	198	1,144	14	1,158	1,169	134	1,303	45	1,348
Departure	940	68	1,008	40	1,048	1,149	225	1,374	27	1,401
Total	1,886	266	2,152	54	2,206	2,318	359	2,677	72	2,749
West Leg										
Approach	967	41	1,008	28	1,036	1,027	136	1,163	90	1,253
Departure	878	120	998	80	1,078	1,162	81	1,243	54	1,297
Total	1,845	161	2,006	108	2,114	2,189	217	2,406	144	2,550
Total Approaches										
Approach	3,080	266	3,346	377	3,723	3,571	359	3,930	505	4,435
Departure	3,080	266	3,346	377	3,723	3,571	359	3,930	505	4,435
Total	6,160	532	6,692	754	7,446	7,142	718	7,860	1,010	8,870

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
10 Clovis Avenue/Teague Avenue										
NBL	283	0	283	0	283	165	0	165	0	165
NBT	380	25	405	51	456	943	82	1,025	167	1,192
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	761	72	833	147	980	482	49	531	99	630
SBR	283	6	289	12	301	65	4	69	8	77
EBL	79	2	81	4	85	140	7	147	14	161
EBT	0	0	0	0	0	0	0	0	0	0
EBR	234	0	234	0	234	108	0	108	0	108
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	1,044	78	1,122	159	1,281	547	53	600	107	707
Departure	459	27	486	55	541	1,083	89	1,172	181	1,353
Total	1,503	105	1,608	214	1,822	1,630	142	1,772	288	2,060
South Leg										
Approach	663	25	688	51	739	1,108	82	1,190	167	1,357
Departure	995	72	1,067	147	1,214	590	49	639	99	738
Total	1,658	97	1,755	198	1,953	1,698	131	1,829	266	2,095
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	313	2	315	4	319	248	7	255	14	269
Departure	566	6	572	12	584	230	4	234	8	242
Total	879	8	887	16	903	478	11	489	22	511
Total Approaches										
Approach	2,020	105	2,125	214	2,339	1,903	142	2,045	288	2,333
Departure	2,020	105	2,125	214	2,339	1,903	142	2,045	288	2,333
Total	4,040	210	4,250	428	4,678	3,806	284	4,090	576	4,666

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
11 Clovis Avenue/Nees Avenue										
NBL	161	0	161	0	161	328	0	328	0	328
NBT	401	25	426	41	467	697	82	779	136	915
NBR	21	0	21	0	21	48	0	48	0	48
SBL	115	0	115	0	115	110	0	110	0	110
SBT	660	72	732	120	852	454	49	503	81	584
SBR	108	0	108	28	136	31	0	31	19	50
EBL	61	0	61	10	71	70	0	70	31	101
EBT	399	1	400	0	400	590	4	594	0	594
EBR	358	0	358	0	358	413	0	413	0	413
WBL	37	32	69	0	69	33	21	54	0	54
WBT	468	3	471	0	471	469	2	471	0	471
WBR	233	0	233	0	233	351	0	351	0	351
North Leg										
Approach	883	72	955	148	1,103	595	49	644	100	744
Departure	695	25	720	51	771	1,118	82	1,200	167	1,367
Total	1,578	97	1,675	199	1,874	1,713	131	1,844	267	2,111
South Leg										
Approach	583	25	608	41	649	1,073	82	1,155	136	1,291
Departure	1,055	104	1,159	120	1,279	900	70	970	81	1,051
Total	1,638	129	1,767	161	1,928	1,973	152	2,125	217	2,342
East Leg										
Approach	738	35	773	0	773	853	23	876	0	876
Departure	535	1	536	0	536	748	4	752	0	752
Total	1,273	36	1,309	0	1,309	1,601	27	1,628	0	1,628
West Leg										
Approach	818	1	819	10	829	1,073	4	1,077	31	1,108
Departure	737	3	740	28	768	828	2	830	19	849
Total	1,555	4	1,559	38	1,597	1,901	6	1,907	50	1,957
Total Approaches										
Approach	3,022	133	3,155	199	3,354	3,594	158	3,752	267	4,019
Departure	3,022	133	3,155	199	3,354	3,594	158	3,752	267	4,019
Total	6,044	266	6,310	398	6,708	7,188	316	7,504	534	8,038

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
12 Clovis Avenue/Alluvial Avenue										
NBL	279	0	279	0	279	261	0	261	0	261
NBT	459	25	484	39	523	1,001	82	1,083	129	1,212
NBR	91	0	91	0	91	90	0	90	0	90
SBL	162	0	162	0	162	125	0	125	0	125
SBT	946	104	1,050	114	1,164	754	70	824	77	901
SBR	57	0	57	6	63	28	0	28	4	32
EBL	14	0	14	2	16	16	0	16	7	23
EBT	291	1	292	0	292	400	4	404	0	404
EBR	193	0	193	0	193	185	0	185	0	185
WBL	46	0	46	0	46	38	0	38	0	38
WBT	416	3	419	0	419	336	2	338	0	338
WBR	109	0	109	0	109	122	0	122	0	122
North Leg										
Approach	1,165	104	1,269	120	1,389	907	70	977	81	1,058
Departure	582	25	607	41	648	1,139	82	1,221	136	1,357
Total	1,747	129	1,876	161	2,037	2,046	152	2,198	217	2,415
South Leg										
Approach	829	25	854	39	893	1,352	82	1,434	129	1,563
Departure	1,185	104	1,289	114	1,403	977	70	1,047	77	1,124
Total	2,014	129	2,143	153	2,296	2,329	152	2,481	206	2,687
East Leg										
Approach	571	3	574	0	574	496	2	498	0	498
Departure	544	1	545	0	545	615	4	619	0	619
Total	1,115	4	1,119	0	1,119	1,111	6	1,117	0	1,117
West Leg										
Approach	498	1	499	2	501	601	4	605	7	612
Departure	752	3	755	6	761	625	2	627	4	631
Total	1,250	4	1,254	8	1,262	1,226	6	1,232	11	1,243
Total Approaches										
Approach	3,063	133	3,196	161	3,357	3,356	158	3,514	217	3,731
Departure	3,063	133	3,196	161	3,357	3,356	158	3,514	217	3,731
Total	6,126	266	6,392	322	6,714	6,712	316	7,028	434	7,462

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
13 State Route 168 Westbound Ramps/Herndon Avenue										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0	0	0
SBL	78	0	78	0	78	77	0	77	0	77
SBT	0	0	0	0	0	0	0	0	0	0
SBR	787	0	787	0	787	406	0	406	0	406
EBL	0	0	0	0	0	0	0	0	0	0
EBT	1,232	2	1,234	2	1,236	1,839	7	1,846	7	1,853
EBR	899	0	899	0	899	609	0	609	0	609
WBL	0	0	0	0	0	0	0	0	0	0
WBT	1,692	6	1,698	6	1,704	2,283	4	2,287	4	2,291
WBR	774	85	859	74	933	722	57	779	50	829
North Leg										
Approach	865	0	865	0	865	483	0	483	0	483
Departure	774	85	859	74	933	722	57	779	50	829
Total	1,639	85	1,724	74	1,798	1,205	57	1,262	50	1,312
South Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	899	0	899	0	899	609	0	609	0	609
Total	899	0	899	0	899	609	0	609	0	609
East Leg										
Approach	2,466	91	2,557	80	2,637	3,005	61	3,066	54	3,120
Departure	1,310	2	1,312	2	1,314	1,916	7	1,923	7	1,930
Total	3,776	93	3,869	82	3,951	4,921	68	4,989	61	5,050
West Leg										
Approach	2,131	2	2,133	2	2,135	2,448	7	2,455	7	2,462
Departure	2,479	6	2,485	6	2,491	2,689	4	2,693	4	2,697
Total	4,610	8	4,618	8	4,626	5,137	11	5,148	11	5,159
Total Approaches										
Approach	5,462	93	5,555	82	5,637	5,936	68	6,004	61	6,065
Departure	5,462	93	5,555	82	5,637	5,936	68	6,004	61	6,065
Total	10,924	186	11,110	164	11,274	11,872	136	12,008	122	12,130

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
14 State Route 168 Eastbound Ramps/Herndon Avenue										
NBL	486	0	486	0	486	788	0	788	0	788
NBT	0	0	0	0	0	0	0	0	0	0
NBR	585	19	604	25	629	874	61	935	84	1,019
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	1,076	2	1,078	2	1,080	1,519	7	1,526	7	1,533
EBR	234	0	234	0	234	397	0	397	0	397
WBL	0	0	0	0	0	0	0	0	0	0
WBT	1,980	91	2,071	80	2,151	2,217	61	2,278	54	2,332
WBR	93	0	93	0	93	214	0	214	0	214
North Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	93	0	93	0	93	214	0	214	0	214
Total	93	0	93	0	93	214	0	214	0	214
South Leg										
Approach	1,071	19	1,090	25	1,115	1,662	61	1,723	84	1,807
Departure	234	0	234	0	234	397	0	397	0	397
Total	1,305	19	1,324	25	1,349	2,059	61	2,120	84	2,204
East Leg										
Approach	2,073	91	2,164	80	2,244	2,431	61	2,492	54	2,546
Departure	1,661	21	1,682	27	1,709	2,393	68	2,461	91	2,552
Total	3,734	112	3,846	107	3,953	4,824	129	4,953	145	5,098
West Leg										
Approach	1,310	2	1,312	2	1,314	1,916	7	1,923	7	1,930
Departure	2,466	91	2,557	80	2,637	3,005	61	3,066	54	3,120
Total	3,776	93	3,869	82	3,951	4,921	68	4,989	61	5,050
Total Approaches										
Approach	4,454	112	4,566	107	4,673	6,009	129	6,138	145	6,283
Departure	4,454	112	4,566	107	4,673	6,009	129	6,138	145	6,283
Total	8,908	224	9,132	214	9,346	12,018	258	12,276	290	12,566

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
15 Clovis Avenue/Herndon Avenue										
NBL	380	0	380	0	380	609	0	609	0	609
NBT	443	3	446	8	454	575	11	586	28	614
NBR	158	0	158	0	158	320	0	320	0	320
SBL	194	3	197	9	206	323	2	325	6	331
SBT	445	9	454	25	479	355	6	361	17	378
SBR	581	91	672	80	752	399	61	460	54	514
EBL	361	21	382	28	410	545	68	613	90	703
EBT	936	0	936	0	936	1,499	0	1,499	0	1,499
EBR	364	0	364	0	364	349	0	349	0	349
WBL	196	0	196	0	196	326	0	326	0	326
WBT	1,112	0	1,112	0	1,112	1,423	0	1,423	0	1,423
WBR	182	1	183	3	186	198	4	202	10	212
North Leg										
Approach	1,220	103	1,323	114	1,437	1,077	69	1,146	77	1,223
Departure	986	25	1,011	39	1,050	1,318	83	1,401	128	1,529
Total	2,206	128	2,334	153	2,487	2,395	152	2,547	205	2,752
South Leg										
Approach	981	3	984	8	992	1,504	11	1,515	28	1,543
Departure	1,005	9	1,014	25	1,039	1,030	6	1,036	17	1,053
Total	1,986	12	1,998	33	2,031	2,534	17	2,551	45	2,596
East Leg										
Approach	1,490	1	1,491	3	1,494	1,947	4	1,951	10	1,961
Departure	1,288	3	1,291	9	1,300	2,142	2	2,144	6	2,150
Total	2,778	4	2,782	12	2,794	4,089	6	4,095	16	4,111
West Leg										
Approach	1,661	21	1,682	28	1,710	2,393	68	2,461	90	2,551
Departure	2,073	91	2,164	80	2,244	2,431	61	2,492	54	2,546
Total	3,734	112	3,846	108	3,954	4,824	129	4,953	144	5,097
Total Approaches										
Approach	5,352	128	5,480	153	5,633	6,921	152	7,073	205	7,278
Departure	5,352	128	5,480	153	5,633	6,921	152	7,073	205	7,278
Total	10,704	256	10,960	306	11,266	13,842	304	14,146	410	14,556

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
16 Baron Avenue/Behymer Avenue										
NBL	200	0	200	25	225	115	0	115	17	132
NBT	0	0	0	0	0	0	0	0	0	0
NBR	19	0	19	3	22	9	0	9	2	11
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	260	1	261	0	261	218	4	222	0	222
EBR	158	0	158	8	166	225	0	225	28	253
WBL	18	0	18	1	19	16	0	16	3	19
WBT	538	3	541	0	541	228	2	230	0	230
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
South Leg										
Approach	219	0	219	28	247	124	0	124	19	143
Departure	176	0	176	9	185	241	0	241	31	272
Total	395	0	395	37	432	365	0	365	50	415
East Leg										
Approach	556	3	559	1	560	244	2	246	3	249
Departure	279	1	280	3	283	227	4	231	2	233
Total	835	4	839	4	843	471	6	477	5	482
West Leg										
Approach	418	1	419	8	427	443	4	447	28	475
Departure	738	3	741	25	766	343	2	345	17	362
Total	1,156	4	1,160	33	1,193	786	6	792	45	837
Total Approaches										
Approach	1,193	4	1,197	37	1,234	811	6	817	50	867
Departure	1,193	4	1,197	37	1,234	811	6	817	50	867
Total	2,386	8	2,394	74	2,468	1,622	12	1,634	100	1,734

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
17 Baron Avenue/Perrin Avenue										
NBL	0	0	0	36	36	0	0	0	118	118
NBT	8	0	8	60	68	11	0	11	198	209
NBR	26	0	26	0	26	89	0	89	0	89
SBL	181	0	181	0	181	249	0	249	0	249
SBT	8	0	8	175	183	8	0	8	118	126
SBR	0	0	0	3	3	0	0	0	10	10
EBL	0	0	0	9	9	0	0	0	6	6
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	104	104	0	0	0	70	70
WBL	28	0	28	0	28	9	0	9	0	9
WBT	0	0	0	0	0	0	0	0	0	0
WBR	202	0	202	0	202	105	0	105	0	105
North Leg										
Approach	189	0	189	178	367	257	0	257	128	385
Departure	210	0	210	69	279	116	0	116	204	320
Total	399	0	399	247	646	373	0	373	332	705
South Leg										
Approach	34	0	34	96	130	100	0	100	316	416
Departure	36	0	36	279	315	17	0	17	188	205
Total	70	0	70	375	445	117	0	117	504	621
East Leg										
Approach	230	0	230	0	230	114	0	114	0	114
Departure	207	0	207	0	207	338	0	338	0	338
Total	437	0	437	0	437	452	0	452	0	452
West Leg										
Approach	0	0	0	113	113	0	0	0	76	76
Departure	0	0	0	39	39	0	0	0	128	128
Total	0	0	0	152	152	0	0	0	204	204
Total Approaches										
Approach	453	0	453	387	840	471	0	471	520	991
Departure	453	0	453	387	840	471	0	471	520	991
Total	906	0	906	774	1,680	942	0	942	1,040	1,982

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
18 Sunnyside Avenue/Shepherd Avenue										
NBL	112	0	112	3	115	182	0	182	10	192
NBT	82	4	86	0	86	286	14	300	0	300
NBR	40	11	51	0	51	40	36	76	0	76
SBL	310	22	332	0	332	153	15	168	0	168
SBT	397	44	441	0	441	157	30	187	0	187
SBR	413	66	479	0	479	341	45	386	0	386
EBL	199	23	222	0	222	353	75	428	0	428
EBT	697	46	743	31	774	751	150	901	21	922
EBR	195	0	195	9	204	162	0	162	6	168
WBL	37	32	69	0	69	43	21	64	0	64
WBT	607	132	739	11	750	831	89	920	35	955
WBR	91	8	99	0	99	309	25	334	0	334
North Leg										
Approach	1,120	132	1,252	0	1,252	651	90	741	0	741
Departure	372	35	407	0	407	948	114	1,062	0	1,062
Total	1,492	167	1,659	0	1,659	1,599	204	1,803	0	1,803
South Leg										
Approach	234	15	249	3	252	508	50	558	10	568
Departure	629	76	705	9	714	362	51	413	6	419
Total	863	91	954	12	966	870	101	971	16	987
East Leg										
Approach	735	172	907	11	918	1,183	135	1,318	35	1,353
Departure	1,047	79	1,126	31	1,157	944	201	1,145	21	1,166
Total	1,782	251	2,033	42	2,075	2,127	336	2,463	56	2,519
West Leg										
Approach	1,091	69	1,160	40	1,200	1,266	225	1,491	27	1,518
Departure	1,132	198	1,330	14	1,344	1,354	134	1,488	45	1,533
Total	2,223	267	2,490	54	2,544	2,620	359	2,979	72	3,051
Total Approaches										
Approach	3,180	388	3,568	54	3,622	3,608	500	4,108	72	4,180
Departure	3,180	388	3,568	54	3,622	3,608	500	4,108	72	4,180
Total	6,360	776	7,136	108	7,244	7,216	1,000	8,216	144	8,360

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
19 Fowler Avenue/Shepherd Avenue										
NBL	197	16	213	4	217	265	54	319	14	333
NBT	100	0	100	0	100	370	0	370	0	370
NBR	40	0	40	0	40	108	0	108	0	108
SBL	342	0	342	0	342	155	0	155	0	155
SBT	518	16	534	0	534	230	11	241	0	241
SBR	32	0	32	0	32	38	0	38	0	38
EBL	53	0	53	0	53	54	0	54	0	54
EBT	663	22	685	18	703	586	15	601	12	613
EBR	270	0	270	12	282	161	0	161	8	169
WBL	75	0	75	0	75	72	0	72	0	72
WBT	455	8	463	6	469	644	25	669	21	690
WBR	386	0	386	0	386	282	0	282	0	282
North Leg										
Approach	892	16	908	0	908	423	11	434	0	434
Departure	539	0	539	0	539	706	0	706	0	706
Total	1,431	16	1,447	0	1,447	1,129	11	1,140	0	1,140
South Leg										
Approach	337	16	353	4	357	743	54	797	14	811
Departure	863	16	879	12	891	463	11	474	8	482
Total	1,200	32	1,232	16	1,248	1,206	65	1,271	22	1,293
East Leg										
Approach	916	8	924	6	930	998	25	1,023	21	1,044
Departure	1,045	22	1,067	18	1,085	849	15	864	12	876
Total	1,961	30	1,991	24	2,015	1,847	40	1,887	33	1,920
West Leg										
Approach	986	22	1,008	30	1,038	801	15	816	20	836
Departure	684	24	708	10	718	947	79	1,026	35	1,061
Total	1,670	46	1,716	40	1,756	1,748	94	1,842	55	1,897
Total Approaches										
Approach	3,131	62	3,193	40	3,233	2,965	105	3,070	55	3,125
Departure	3,131	62	3,193	40	3,233	2,965	105	3,070	55	3,125
Total	6,262	124	6,386	80	6,466	5,930	210	6,140	110	6,250

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
20 Hammel Avenue/Project Driveway 1										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	3	3	0	0	0	10	10
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	9	9	0	0	0	6	6
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
South Leg										
Approach	0	0	0	3	3	0	0	0	10	10
Departure	0	0	0	9	9	0	0	0	6	6
Total	0	0	0	12	12	0	0	0	16	16
East Leg										
Approach	0	0	0	9	9	0	0	0	6	6
Departure	0	0	0	3	3	0	0	0	10	10
Total	0	0	0	12	12	0	0	0	16	16
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	0	0	0	12	12	0	0	0	16	16
Departure	0	0	0	12	12	0	0	0	16	16
Total	0	0	0	24	24	0	0	0	32	32

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
21 Hammel Avenue/Project Driveway 2										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	3	3	0	0	0	10	10
NBR	0	0	0	11	11	0	0	0	35	35
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	9	9	0	0	0	6	6
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	31	31	0	0	0	21	21
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	9	9	0	0	0	6	6
Departure	0	0	0	3	3	0	0	0	10	10
Total	0	0	0	12	12	0	0	0	16	16
South Leg										
Approach	0	0	0	14	14	0	0	0	45	45
Departure	0	0	0	40	40	0	0	0	27	27
Total	0	0	0	54	54	0	0	0	72	72
East Leg										
Approach	0	0	0	31	31	0	0	0	21	21
Departure	0	0	0	11	11	0	0	0	35	35
Total	0	0	0	42	42	0	0	0	56	56
West Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Total Approaches										
Approach	0	0	0	54	54	0	0	0	72	72
Departure	0	0	0	54	54	0	0	0	72	72
Total	0	0	0	108	108	0	0	0	144	144

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
22 Project Driveway 3/Perrin Avenue										
NBL	0	0	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0	0	0
NBR	0	0	0	74	74	0	0	0	50	50
SBL	0	0	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0	0	0
EBT	0	0	0	40	40	0	0	0	27	27
EBR	0	0	0	0	0	0	0	0	0	0
WBL	0	0	0	25	25	0	0	0	84	84
WBT	0	0	0	14	14	0	0	0	45	45
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
South Leg										
Approach	0	0	0	74	74	0	0	0	50	50
Departure	0	0	0	25	25	0	0	0	84	84
Total	0	0	0	99	99	0	0	0	134	134
East Leg										
Approach	0	0	0	39	39	0	0	0	129	129
Departure	0	0	0	114	114	0	0	0	77	77
Total	0	0	0	153	153	0	0	0	206	206
West Leg										
Approach	0	0	0	40	40	0	0	0	27	27
Departure	0	0	0	14	14	0	0	0	45	45
Total	0	0	0	54	54	0	0	0	72	72
Total Approaches										
Approach	0	0	0	153	153	0	0	0	206	206
Departure	0	0	0	153	153	0	0	0	206	206
Total	0	0	0	306	306	0	0	0	412	412

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
23 Baron Avenue/Project Driveway 4										
NBL	0	0	0	19	19	0	0	0	63	63
NBT	4	0	219	21	240	9	0	124	14	138
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	9	0	176	7	183	8	0	241	24	265
SBR	0	0	0	2	2	0	0	0	7	7
EBL	0	0	0	6	6	0	0	0	4	4
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	55	55	0	0	0	37	37
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	9	0	176	9	185	8	0	241	31	272
Departure	4	0	219	27	246	9	0	124	18	142
Total	13	0	395	36	431	17	0	365	49	414
South Leg										
Approach	4	0	219	40	259	9	0	124	77	201
Departure	9	0	176	62	238	8	0	241	61	302
Total	13	0	395	102	497	17	0	365	138	503
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	61	61	0	0	0	41	41
Departure	0	0	0	21	21	0	0	0	70	70
Total	0	0	0	82	82	0	0	0	111	111
Total Approaches										
Approach	13	0	395	110	505	17	0	365	149	514
Departure	13	0	395	110	505	17	0	365	149	514
Total	26	0	790	220	1,010	34	0	730	298	1,028

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
24 Baron Avenue/Project Driveway 5										
NBL	0	0	0	20	20	0	0	0	66	66
NBT	4	0	219	34	253	9	0	124	73	197
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	7	0	176	60	236	8	0	241	54	295
SBR	0	0	0	2	2	0	0	0	7	7
EBL	0	0	0	6	6	0	0	0	4	4
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	58	58	0	0	0	39	39
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	7	0	176	62	238	8	0	241	61	302
Departure	4	0	219	40	259	9	0	124	77	201
Total	11	0	395	102	497	17	0	365	138	503
South Leg										
Approach	4	0	219	54	273	9	0	124	139	263
Departure	7	0	176	118	294	8	0	241	93	334
Total	11	0	395	172	567	17	0	365	232	597
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	64	64	0	0	0	43	43
Departure	0	0	0	22	22	0	0	0	73	73
Total	0	0	0	86	86	0	0	0	116	116
Total Approaches										
Approach	11	0	395	180	575	17	0	365	243	608
Departure	11	0	395	180	575	17	0	365	243	608
Total	22	0	790	360	1,150	34	0	730	486	1,216

Table D-3 - Cumulative (2046) Peak Hour Volume Summary

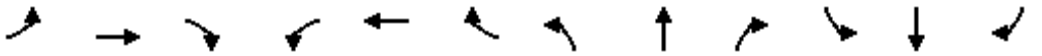
	AM Peak Hour					PM Peak Hour				
	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project	Cumulative (2046) Without Project	Shepherd North Trips	Final Cumulative (2046) Without Project	Project Trips	Cumulative (2046) Plus Project
25 Baron Avenue/Project Driveway 6										
NBL	0	0	0	21	21	0	0	0	70	70
NBT	4	0	210	48	258	9	0	116	135	251
NBR	0	0	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0	0	0
SBT	7	0	189	117	306	8	0	257	87	344
SBR	0	0	0	2	2	0	0	0	7	7
EBL	0	0	0	6	6	0	0	0	4	4
EBT	0	0	0	0	0	0	0	0	0	0
EBR	0	0	0	61	61	0	0	0	41	41
WBL	0	0	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0	0	0
WBR	0	0	0	0	0	0	0	0	0	0
North Leg										
Approach	7	0	189	119	308	8	0	257	94	351
Departure	4	0	210	54	264	9	0	116	139	255
Total	11	0	399	173	572	17	0	373	233	606
South Leg										
Approach	4	0	210	69	279	9	0	116	205	321
Departure	7	0	189	178	367	8	0	257	128	385
Total	11	0	399	247	646	17	0	373	333	706
East Leg										
Approach	0	0	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
West Leg										
Approach	0	0	0	67	67	0	0	0	45	45
Departure	0	0	0	23	23	0	0	0	77	77
Total	0	0	0	90	90	0	0	0	122	122
Total Approaches										
Approach	11	0	399	255	654	17	0	373	344	717
Departure	11	0	399	255	654	17	0	373	344	717
Total	22	0	798	510	1,308	34	0	746	688	1,434

APPENDIX E

LEVEL OF SERVICE WORKSHEETS

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map 6
Existing (2022) NP - AM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	70	193	14	267	53	349	293	14	62	430	86
Future Volume (veh/h)	22	70	193	14	267	53	349	293	14	62	430	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	29	92	254	18	351	70	459	386	18	82	566	113
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	71	445	377	52	414	351	353	1874	836	103	2410	748
Arrive On Green	0.04	0.24	0.24	0.03	0.22	0.22	0.03	0.17	0.17	0.06	0.47	0.47
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	29	92	254	18	351	70	459	386	18	82	566	113
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	2.1	5.3	19.5	1.3	24.3	4.9	13.7	12.5	1.3	6.1	8.9	5.5
Cycle Q Clear(g_c), s	2.1	5.3	19.5	1.3	24.3	4.9	13.7	12.5	1.3	6.1	8.9	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	445	377	52	414	351	353	1874	836	103	2410	748
V/C Ratio(X)	0.41	0.21	0.67	0.35	0.85	0.20	1.30	0.21	0.02	0.80	0.23	0.15
Avail Cap(c_a), veh/h	205	617	523	211	612	519	353	1874	836	194	2410	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	41.4	46.9	64.3	50.4	42.8	65.2	31.8	27.2	62.8	21.2	20.3
Incr Delay (d2), s/veh	1.4	0.5	4.9	1.5	9.8	0.5	153.0	0.2	0.0	5.2	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	8.3	0.6	12.5	2.0	13.9	5.9	0.5	2.9	3.4	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	42.0	51.7	65.8	60.2	43.3	218.3	32.0	27.2	68.0	21.4	20.7
LnGrp LOS	E	D	D	E	E	D	F	C	C	E	C	C
Approach Vol, veh/h		375			439			863			761	
Approach Delay, s/veh		50.3			57.7			131.0			26.3	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	69.4	9.9	35.7	13.1	76.3	7.9	37.7
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	15.7	10.9	4.1	26.3	8.1	14.5	3.3	21.5
Green Ext Time (p_c), s	0.0	9.5	0.0	3.6	0.0	5.3	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	72.7
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	125	203	16	128	43	84	552	16	44	576	74
Future Volume (veh/h)	67	125	203	16	128	43	84	552	16	44	576	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	85	158	257	20	162	54	106	699	20	56	729	94
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	106	357	302	55	201	67	129	2871	891	93	2788	845
Arrive On Green	0.06	0.19	0.19	0.03	0.15	0.15	0.07	0.56	0.56	0.10	1.00	1.00
Sat Flow, veh/h	1781	1870	1585	1767	1332	444	1781	5106	1585	1795	5147	1560
Grp Volume(v), veh/h	85	158	257	20	0	216	106	699	20	56	729	94
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1767	0	1776	1781	1702	1585	1795	1716	1560
Q Serve(g_s), s	6.4	10.1	21.1	1.5	0.0	15.9	7.9	9.4	0.8	4.0	0.0	0.0
Cycle Q Clear(g_c), s	6.4	10.1	21.1	1.5	0.0	15.9	7.9	9.4	0.8	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	357	302	55	0	267	129	2871	891	93	2788	845
V/C Ratio(X)	0.80	0.44	0.85	0.36	0.00	0.81	0.82	0.24	0.02	0.60	0.26	0.11
Avail Cap(c_a), veh/h	182	603	511	202	0	572	194	2871	891	196	2788	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.98	0.98	0.98	0.95	0.95	0.95
Uniform Delay (d), s/veh	62.7	48.3	52.7	64.1	0.0	55.4	61.7	15.0	13.1	59.1	0.0	0.0
Incr Delay (d2), s/veh	5.1	1.0	8.0	1.5	0.0	12.0	9.3	0.2	0.0	2.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.8	9.1	0.7	0.0	8.0	3.9	3.7	0.3	1.8	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	49.3	60.7	65.5	0.0	67.5	71.1	15.2	13.1	61.3	0.2	0.3
LnGrp LOS	E	D	E	E	A	E	E	B	B	E	A	A
Approach Vol, veh/h		500			236			825			879	
Approach Delay, s/veh		58.3			67.3			22.3			4.1	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	78.8	14.3	26.8	12.3	81.6	8.8	32.3
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	9.9	2.0	8.4	17.9	6.0	11.4	3.5	23.1
Green Ext Time (p_c), s	0.0	14.7	0.0	2.5	0.0	11.4	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	243	145	44	298	98	160	587	49	161	740	50
Future Volume (veh/h)	29	243	145	44	298	98	160	587	49	161	740	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	33	276	165	50	339	111	182	667	56	183	841	57
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	1	1	1
Cap, veh/h	140	534	238	164	584	260	231	2850	884	233	2893	886
Arrive On Green	0.04	0.15	0.15	0.05	0.17	0.17	0.07	0.56	0.56	0.07	0.56	0.56
Sat Flow, veh/h	3456	3554	1585	3428	3526	1570	3428	5066	1572	3483	5147	1576
Grp Volume(v), veh/h	33	276	165	50	339	111	182	667	56	183	841	57
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1570	1714	1689	1572	1742	1716	1576
Q Serve(g_s), s	1.3	10.4	14.3	2.0	12.9	9.2	7.6	9.6	2.3	7.5	12.4	2.4
Cycle Q Clear(g_c), s	1.3	10.4	14.3	2.0	12.9	9.2	7.6	9.6	2.3	7.5	12.4	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	534	238	164	584	260	231	2850	884	233	2893	886
V/C Ratio(X)	0.24	0.52	0.69	0.31	0.58	0.43	0.79	0.23	0.06	0.78	0.29	0.06
Avail Cap(c_a), veh/h	462	1073	479	430	1065	474	442	2850	884	449	2893	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	67.4	56.8	58.4	66.7	55.8	54.3	66.6	16.0	14.4	66.6	16.6	14.4
Incr Delay (d2), s/veh	0.3	1.8	8.2	0.2	0.8	0.9	2.2	0.2	0.1	2.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.8	6.3	0.9	5.8	3.7	3.4	3.8	0.9	3.4	5.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	58.6	66.7	66.9	56.6	55.2	68.8	16.2	14.5	68.7	16.9	14.6
LnGrp LOS	E	E	E	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		474			500			905			1081	
Approach Delay, s/veh		62.0			57.3			26.7			25.5	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	87.2	11.5	30.2	16.0	87.3	13.7	28.0
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	9.6	14.4	3.3	14.9	9.5	11.6	4.0	16.3
Green Ext Time (p_c), s	0.2	13.3	0.0	3.8	0.2	11.3	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	100	0	1	0	314	196	0	0	245	6
Future Vol, veh/h	1	0	100	0	1	0	314	196	0	0	245	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	1	0	123	0	1	0	388	242	0	0	302	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1324	306	1385	1327	242	309	0	0	242	0	0
Stage 1	306	306	-	1018	1018	-	-	-	-	-	-	-
Stage 2	1019	1018	-	367	309	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	132	155	732	121	155	797	1240	-	-	1324	-	-
Stage 1	702	660	-	286	315	-	-	-	-	-	-	-
Stage 2	285	314	-	653	660	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	94	99	732	72	99	797	1240	-	-	1324	-	-
Mov Cap-2 Maneuver	94	99	-	72	99	-	-	-	-	-	-	-
Stage 1	449	660	-	183	201	-	-	-	-	-	-	-
Stage 2	181	201	-	543	660	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	41.8	5.7	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1240	-	-	686	99	1324	-	-
HCM Lane V/C Ratio	0.313	-	-	0.182	0.012	-	-	-
HCM Control Delay (s)	9.2	0	-	11.4	41.8	0	-	-
HCM Lane LOS	A	A	-	B	E	A	-	-
HCM 95th %tile Q(veh)	1.3	-	-	0.7	0	0	-	-

Intersection	
Intersection Delay, s/veh	58.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	114	44	12	145	297	41	212	8	123	225	3
Future Vol, veh/h	3	114	44	12	145	297	41	212	8	123	225	3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	3	3	3	4	4	4	4	4	4	2	2	2
Mvmt Flow	4	137	53	14	175	358	49	255	10	148	271	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	19	95.2	29.3	51.7
HCM LOS	C	F	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	2%	3%	35%
Vol Thru, %	81%	71%	32%	64%
Vol Right, %	3%	27%	65%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	261	161	454	351
LT Vol	41	3	12	123
Through Vol	212	114	145	225
RT Vol	8	44	297	3
Lane Flow Rate	314	194	547	423
Geometry Grp	1	1	1	1
Degree of Util (X)	0.704	0.455	1.095	0.909
Departure Headway (Hd)	8.484	8.859	7.208	8.095
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	428	409	503	452
Service Time	6.484	6.859	5.268	6.095
HCM Lane V/C Ratio	0.734	0.474	1.087	0.936
HCM Control Delay	29.3	19	95.2	51.7
HCM Lane LOS	D	C	F	F
HCM 95th-tile Q	5.3	2.3	17.5	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	339	152	44	291	91	127	150	41	103	159	29
Future Volume (veh/h)	33	339	152	44	291	91	127	150	41	103	159	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	404	181	52	346	108	151	179	49	123	189	35
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	115	739	329	127	397	336	177	906	768	149	877	743
Arrive On Green	0.06	0.21	0.21	0.07	0.21	0.21	0.10	0.48	0.48	0.08	0.47	0.47
Sat Flow, veh/h	1795	3582	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	39	404	181	52	346	108	151	179	49	123	189	35
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.7	13.1	13.2	3.7	23.4	7.5	10.8	7.1	2.1	8.8	7.8	1.6
Cycle Q Clear(g_c), s	2.7	13.1	13.2	3.7	23.4	7.5	10.8	7.1	2.1	8.8	7.8	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	739	329	127	397	336	177	906	768	149	877	743
V/C Ratio(X)	0.34	0.55	0.55	0.41	0.87	0.32	0.85	0.20	0.06	0.83	0.22	0.05
Avail Cap(c_a), veh/h	290	937	418	285	485	411	288	906	768	288	877	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	46.2	46.2	57.7	49.4	43.1	57.6	19.1	17.8	58.6	20.4	18.7
Incr Delay (d2), s/veh	0.5	0.8	1.8	0.8	15.3	0.9	6.8	0.5	0.2	4.4	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	5.9	5.4	1.7	12.5	3.0	5.2	3.2	0.8	4.2	3.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	47.0	48.0	58.5	64.7	44.0	64.4	19.6	18.0	63.0	21.0	18.9
LnGrp LOS	E	D	D	E	E	D	E	B	B	E	C	B
Approach Vol, veh/h		624			506			379			347	
Approach Delay, s/veh		48.0			59.6			37.2			35.6	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	67.0	12.3	33.8	14.9	69.0	13.3	32.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	12.8	9.8	4.7	25.4	10.8	9.1	5.7	15.2
Green Ext Time (p_c), s	0.1	1.7	0.0	2.4	0.1	1.2	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	46.7
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	0	0	0	0	83	0	0
Future Vol, veh/h	0	0	0	0	83	0	0
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	9
Mvmt Flow	0	0	0	0	120	0	0
Number of Lanes	0	0	1	0	1	0	1

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	2	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	0	8
HCM LOS	-	A

Lane	NBLn1	NBLn2	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	83	0	0
LT Vol	0	0	0
Through Vol	83	0	0
RT Vol	0	0	0
Lane Flow Rate	120	0	0
Geometry Grp	7	7	2
Degree of Util (X)	0.15	0	0
Departure Headway (Hd)	4.5	4.653	4.11
Convergence, Y/N	Yes	Yes	Yes
Cap	802	0	0
Service Time	2.2	2.353	2.195
HCM Lane V/C Ratio	0.15	0	0
HCM Control Delay	8	7.4	7.2
HCM Lane LOS	A	N	N
HCM 95th-tile Q	0.5	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	337	118	109	294	48	80	59	86	19	71	67
Future Volume (veh/h)	32	337	118	109	294	48	80	59	86	19	71	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	39	406	142	131	354	58	96	71	104	23	86	81
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	191	552	245	245	611	272	119	1483	662	588	1870	834
Arrive On Green	0.06	0.16	0.16	0.07	0.17	0.17	0.07	0.43	0.43	0.17	0.54	0.54
Sat Flow, veh/h	3428	3526	1566	3456	3554	1585	1711	3413	1522	3374	3469	1547
Grp Volume(v), veh/h	39	406	142	131	354	58	96	71	104	23	86	81
Grp Sat Flow(s),veh/h/ln	1714	1763	1566	1728	1777	1585	1711	1706	1522	1687	1735	1547
Q Serve(g_s), s	1.5	15.4	11.8	5.1	12.8	4.4	7.7	1.7	5.8	0.8	1.6	3.6
Cycle Q Clear(g_c), s	1.5	15.4	11.8	5.1	12.8	4.4	7.7	1.7	5.8	0.8	1.6	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	552	245	245	611	272	119	1483	662	588	1870	834
V/C Ratio(X)	0.20	0.74	0.58	0.53	0.58	0.21	0.80	0.05	0.16	0.04	0.05	0.10
Avail Cap(c_a), veh/h	598	856	380	602	863	385	298	1483	662	588	1870	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	56.3	54.8	62.8	53.3	49.8	64.2	22.9	24.0	48.1	15.2	15.7
Incr Delay (d2), s/veh	0.2	2.8	3.2	0.7	1.3	0.6	4.7	0.1	0.5	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.1	4.9	2.3	5.9	1.8	3.5	0.7	2.2	0.3	0.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	59.1	57.9	63.5	54.6	50.4	68.9	22.9	24.5	48.2	15.3	15.9
LnGrp LOS	E	E	E	E	D	D	E	C	C	D	B	B
Approach Vol, veh/h		587			543			271			190	
Approach Delay, s/veh		59.1			56.3			39.8			19.5	
Approach LOS		E			E			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	81.2	13.4	30.1	30.0	66.5	15.5	27.9
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	9.7	5.6	3.5	14.8	2.8	7.8	7.1	17.4
Green Ext Time (p_c), s	0.1	2.3	0.0	3.4	0.0	1.6	0.2	4.1

Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	73	222	263	209	273	183
Future Volume (veh/h)	73	222	263	209	273	183
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	292	346	275	359	241
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	2	2	2	2
Cap, veh/h	371	330	377	2393	1474	657
Arrive On Green	0.21	0.21	0.21	0.67	0.41	0.41
Sat Flow, veh/h	1795	1598	1781	3647	3647	1585
Grp Volume(v), veh/h	96	292	346	275	359	241
Grp Sat Flow(s),veh/h/ln	1795	1598	1781	1777	1777	1585
Q Serve(g_s), s	3.8	15.1	16.2	2.3	5.6	8.9
Cycle Q Clear(g_c), s	3.8	15.1	16.2	2.3	5.6	8.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	371	330	377	2393	1474	657
V/C Ratio(X)	0.26	0.89	0.92	0.11	0.24	0.37
Avail Cap(c_a), veh/h	530	472	377	2393	1474	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	28.3	32.7	32.8	4.9	16.2	17.2
Incr Delay (d2), s/veh	0.1	10.5	26.3	0.1	0.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.6	9.5	0.8	2.3	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.4	43.2	59.1	5.0	16.6	18.7
LnGrp LOS	C	D	E	A	B	B
Approach Vol, veh/h	388			621	600	
Approach Delay, s/veh	39.5			35.1	17.4	
Approach LOS	D			D	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.0	40.5			62.5	22.5
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	18.0	27.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	18.2	10.9			4.3	17.1
Green Ext Time (p_c), s	0.0	3.8			2.5	0.5

Intersection Summary		
HCM 6th Ctrl Delay	29.6	
HCM 6th LOS	C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	306	194	35	363	180	70	294	20	70	416	42
Future Volume (veh/h)	30	306	194	35	363	180	70	294	20	70	416	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	34	352	223	40	417	207	80	338	23	80	478	48
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	81	427	362	87	436	369	102	1909	831	103	1924	838
Arrive On Green	0.05	0.23	0.23	0.05	0.23	0.23	0.06	0.54	0.54	0.06	0.54	0.54
Sat Flow, veh/h	1781	1870	1585	1795	1885	1596	1767	3526	1536	1781	3554	1547
Grp Volume(v), veh/h	34	352	223	40	417	207	80	338	23	80	478	48
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1596	1767	1763	1536	1781	1777	1547
Q Serve(g_s), s	2.8	26.8	19.0	3.3	32.7	17.2	6.7	7.3	1.0	6.6	10.7	2.2
Cycle Q Clear(g_c), s	2.8	26.8	19.0	3.3	32.7	17.2	6.7	7.3	1.0	6.6	10.7	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	427	362	87	436	369	102	1909	831	103	1924	838
V/C Ratio(X)	0.42	0.83	0.62	0.46	0.96	0.56	0.78	0.18	0.03	0.78	0.25	0.06
Avail Cap(c_a), veh/h	368	495	420	311	436	369	365	1909	831	309	1924	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.7	55.0	52.0	69.4	56.9	50.9	69.7	17.4	16.0	69.7	18.2	16.3
Incr Delay (d2), s/veh	1.3	10.7	2.9	1.4	32.2	2.5	4.7	0.2	0.1	4.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	14.0	7.9	1.5	19.5	7.2	3.2	3.1	0.4	3.2	4.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	65.8	54.9	70.8	89.1	53.4	74.5	17.6	16.1	74.3	18.5	16.4
LnGrp LOS	E	E	D	E	F	D	E	B	B	E	B	B
Approach Vol, veh/h		609			664			441			606	
Approach Delay, s/veh		62.1			76.9			27.9			25.7	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	86.5	10.8	40.0	12.7	86.5	11.3	39.5
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	8.7	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	10.7	12.7	4.8	34.7	8.6	9.3	5.3	28.8
Green Ext Time (p_c), s	0.1	4.9	0.0	0.0	0.1	3.6	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	50.3
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	269	153	44	407	89	127	282	61	126	576	34
Future Volume (veh/h)	13	269	153	44	407	89	127	282	61	126	576	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	15	302	172	49	457	100	143	317	69	142	647	38
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	1	1	1
Cap, veh/h	56	431	365	117	504	427	169	1288	276	171	1535	90
Arrive On Green	0.03	0.24	0.24	0.07	0.27	0.27	0.10	0.45	0.45	0.10	0.45	0.45
Sat Flow, veh/h	1739	1826	1545	1781	1870	1585	1767	2875	616	1795	3433	201
Grp Volume(v), veh/h	15	302	172	49	457	100	143	192	194	142	337	348
Grp Sat Flow(s),veh/h/ln	1739	1826	1545	1781	1870	1585	1767	1763	1729	1795	1791	1843
Q Serve(g_s), s	1.1	18.9	12.0	3.3	29.5	6.2	10.0	8.5	8.7	9.7	16.0	16.1
Cycle Q Clear(g_c), s	1.1	18.9	12.0	3.3	29.5	6.2	10.0	8.5	8.7	9.7	16.0	16.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.11
Lane Grp Cap(c), veh/h	56	431	365	117	504	427	169	789	774	171	801	824
V/C Ratio(X)	0.27	0.70	0.47	0.42	0.91	0.23	0.84	0.24	0.25	0.83	0.42	0.42
Avail Cap(c_a), veh/h	153	574	486	157	588	498	297	789	774	230	801	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	59.0	43.7	41.0	56.1	44.2	35.6	55.6	21.4	21.5	55.5	23.5	23.5
Incr Delay (d2), s/veh	0.9	1.8	0.6	0.9	16.5	0.3	4.3	0.7	0.8	12.6	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	8.8	4.6	1.5	15.9	2.4	4.6	3.7	3.7	5.0	7.1	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	45.5	41.7	57.0	60.7	35.9	59.9	22.1	22.2	68.1	25.1	25.1
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	C	C
Approach Vol, veh/h		489			606			529			827	
Approach Delay, s/veh		44.6			56.3			32.4			32.5	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	61.6	8.1	39.4	15.9	61.7	12.2	35.2
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	12.0	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	12.0	18.1	3.1	31.5	11.7	10.7	5.3	20.9
Green Ext Time (p_c), s	0.1	3.9	0.0	2.1	0.1	2.7	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	957	491	0	1454	576	0	0	0	66	0	729
Future Volume (veh/h)	0	957	491	0	1454	576	0	0	0	66	0	729
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1885	0	1885
Adj Flow Rate, veh/h	0	1018	522	0	1818	0				70	0	776
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				1	0	1
Cap, veh/h	0	3543	873	0	4120					962	0	776
Arrive On Green	0.00	0.55	0.55	0.00	0.73	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6696	1585	0	7481	1585				3483	0	2812
Grp Volume(v), veh/h	0	1018	522	0	1818	0				70	0	776
Grp Sat Flow(s),veh/h/ln	0	1609	1585	0	1870	1585				1742	0	1406
Q Serve(g_s), s	0.0	11.0	28.7	0.0	12.5	0.0				1.9	0.0	35.9
Cycle Q Clear(g_c), s	0.0	11.0	28.7	0.0	12.5	0.0				1.9	0.0	35.9
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3543	873	0	4120					962	0	776
V/C Ratio(X)	0.00	0.29	0.60	0.00	0.44					0.07	0.00	1.00
Avail Cap(c_a), veh/h	0	3959	975	0	4604					962	0	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.6	19.6	0.0	9.5	0.0				34.8	0.0	47.0
Incr Delay (d2), s/veh	0.0	0.2	3.0	0.0	0.3	0.0				0.1	0.0	32.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.1	11.1	0.0	4.3	0.0				0.8	0.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.8	22.6	0.0	9.8	0.0				34.8	0.0	79.2
LnGrp LOS	A	B	C	A	A					C	A	E
Approach Vol, veh/h		1540			1818						846	
Approach Delay, s/veh		18.1			9.8						75.5	
Approach LOS		B			A						E	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	78.4	43.2	78.4
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	80.0	35.9	80.0
Max Q Clear Time (g_c+I1), s	30.7	37.9	14.5
Green Ext Time (p_c), s	37.3	0.0	57.1

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	810	213	0	1576	79	454	0	479	0	0	0
Future Volume (veh/h)	0	810	213	0	1576	79	454	0	479	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1885	1885	1841	0	1841			
Adj Flow Rate, veh/h	0	900	0	0	1751	88	504	0	532			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	2	2	0	1	1	4	0	4			
Cap, veh/h	0	2985		0	4464	934	1536	0	853			
Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.58	0.31	0.00	0.31			
Sat Flow, veh/h	0	5274	1585	0	7993	1598	4944	0	2745			
Grp Volume(v), veh/h	0	900	0	0	1751	88	504	0	532			
Grp Sat Flow(s),veh/h/ln	0	1702	1585	0	1527	1598	1648	0	1373			
Q Serve(g_s), s	0.0	11.6	0.0	0.0	16.1	3.1	10.2	0.0	21.5			
Cycle Q Clear(g_c), s	0.0	11.6	0.0	0.0	16.1	3.1	10.2	0.0	21.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2985		0	4464	934	1536	0	853			
V/C Ratio(X)	0.00	0.30		0.00	0.39	0.09	0.33	0.00	0.62			
Avail Cap(c_a), veh/h	0	2985		0	4464	934	1536	0	853			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.98	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	13.6	0.0	0.0	14.6	11.9	34.4	0.0	38.3			
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.2	0.2	0.6	0.0	3.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.0	0.0	5.5	1.2	4.2	0.0	7.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.9	0.0	0.0	14.7	12.0	35.0	0.0	41.7			
LnGrp LOS	A	B		A	B	B	C	A	D			
Approach Vol, veh/h		900			1839			1036				
Approach Delay, s/veh		13.9			14.6			38.4				
Approach LOS		B			B			D				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		82.8				82.8		47.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		76.0				76.0		40.4				
Max Q Clear Time (g_c+I1), s		13.6				18.1		23.5				
Green Ext Time (p_c), s		25.7				51.0		8.5				

Intersection Summary		
HCM 6th Ctrl Delay		21.0
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	832	214	148	1021	157	232	255	120	161	283	402
Future Volume (veh/h)	243	832	214	148	1021	157	232	255	120	161	283	402
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	261	895	230	159	1098	169	249	274	129	173	304	432
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	310	2190	680	290	2174	674	312	880	380	314	1305	703
Arrive On Green	0.09	0.43	0.43	0.08	0.43	0.43	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3428	5066	1572	3456	5106	1584	3456	3472	1497	3483	5147	2773
Grp Volume(v), veh/h	261	895	230	159	1098	169	249	268	135	173	304	432
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1584	1728	1702	1565	1742	1716	1387
Q Serve(g_s), s	11.6	18.9	15.1	6.8	24.4	10.6	10.9	9.9	10.9	7.4	7.3	21.3
Cycle Q Clear(g_c), s	11.6	18.9	15.1	6.8	24.4	10.6	10.9	9.9	10.9	7.4	7.3	21.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	310	2190	680	290	2174	674	312	863	397	314	1305	703
V/C Ratio(X)	0.84	0.41	0.34	0.55	0.50	0.25	0.80	0.31	0.34	0.55	0.23	0.61
Avail Cap(c_a), veh/h	553	2190	680	557	2174	674	669	863	397	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	30.3	29.3	68.2	32.5	28.6	69.1	46.9	47.2	67.5	45.9	51.2
Incr Delay (d2), s/veh	2.3	0.5	1.3	0.6	0.8	0.9	1.8	0.9	2.3	0.6	0.4	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	7.9	6.0	3.1	10.3	4.3	4.9	4.4	4.6	3.3	3.2	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	30.9	30.5	68.8	33.4	29.5	70.9	47.8	49.6	68.1	46.3	55.1
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	E
Approach Vol, veh/h		1386			1426			652			909	
Approach Delay, s/veh		38.5			36.9			57.0			54.6	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	72.0	19.0	45.0	18.0	73.0	19.0	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	13.6	26.4	9.4	12.9	8.8	20.9	12.9	23.3
Green Ext Time (p_c), s	0.4	5.9	0.3	1.7	0.2	6.9	0.4	3.9

Intersection Summary	
HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	325	106	31	371	3	54	11	27	2	14	9
Future Vol, veh/h	8	325	106	31	371	3	54	11	27	2	14	9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	1	1	1	0	0	0	0	0	0
Mvmt Flow	8	332	108	32	379	3	55	11	28	2	14	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.8	13.5	10	9.2
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	2%	8%	8%
Vol Thru, %	12%	74%	92%	56%
Vol Right, %	29%	24%	1%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	92	439	405	25
LT Vol	54	8	31	2
Through Vol	11	325	371	14
RT Vol	27	106	3	9
Lane Flow Rate	94	448	413	26
Geometry Grp	1	1	1	1
Degree of Util (X)	0.154	0.575	0.546	0.042
Departure Headway (Hd)	5.887	4.617	4.759	5.921
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	613	775	752	608
Service Time	3.889	2.693	2.839	3.926
HCM Lane V/C Ratio	0.153	0.578	0.549	0.043
HCM Control Delay	10	13.8	13.5	9.2
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.5	3.7	3.3	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	281	51	36	279	370	141	92	34	185	125	18
Future Volume (veh/h)	20	281	51	36	279	370	141	92	34	185	125	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	21	293	53	38	291	385	147	96	35	193	130	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	55	765	341	75	424	359	170	912	773	216	809	118
Arrive On Green	0.03	0.22	0.22	0.04	0.23	0.23	0.10	0.49	0.49	0.12	0.52	0.52
Sat Flow, veh/h	1781	3554	1585	1781	1870	1585	1781	1870	1585	1753	1570	229
Grp Volume(v), veh/h	21	293	53	38	291	385	147	96	35	193	0	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1870	1585	1753	0	1799
Q Serve(g_s), s	1.7	10.6	4.1	3.1	21.4	34.0	12.2	4.2	1.7	16.3	0.0	6.6
Cycle Q Clear(g_c), s	1.7	10.6	4.1	3.1	21.4	34.0	12.2	4.2	1.7	16.3	0.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	55	765	341	75	424	359	170	912	773	216	0	927
V/C Ratio(X)	0.38	0.38	0.16	0.50	0.69	1.07	0.86	0.11	0.05	0.89	0.00	0.16
Avail Cap(c_a), veh/h	368	806	359	368	424	359	368	912	773	362	0	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.2	50.3	47.8	70.3	53.1	58.0	66.9	20.7	20.1	64.8	0.0	19.2
Incr Delay (d2), s/veh	1.6	0.6	0.4	1.9	5.6	67.8	5.0	0.2	0.1	8.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.8	1.7	1.5	10.8	20.4	5.8	1.9	0.7	7.8	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.8	50.9	48.2	72.2	58.7	125.8	71.8	21.0	20.2	73.2	0.0	19.6
LnGrp LOS	E	D	D	E	E	F	E	C	C	E	A	B
Approach Vol, veh/h		367			714			278			342	
Approach Delay, s/veh		51.8			95.6			47.8			49.8	
Approach LOS		D			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.3	83.0	8.7	40.0	22.5	78.9	10.4	38.3
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	14.3	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	14.2	8.6	3.7	36.0	18.3	6.2	5.1	12.6
Green Ext Time (p_c), s	0.2	0.8	0.0	0.0	0.2	0.6	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	69.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	37	93	5	62	29	111	366	12	19	252	11
Future Volume (veh/h)	9	37	93	5	62	29	111	366	12	19	252	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	41	103	6	69	32	123	407	13	21	280	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	164	139	21	144	122	206	2577	1150	58	3500	1087
Arrive On Green	0.02	0.09	0.09	0.01	0.08	0.08	0.12	1.00	1.00	0.03	0.68	0.68
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	41	103	6	69	32	123	407	13	21	280	12
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	2.8	8.6	0.5	4.8	2.6	4.5	0.0	0.0	1.5	2.5	0.3
Cycle Q Clear(g_c), s	0.7	2.8	8.6	0.5	4.8	2.6	4.5	0.0	0.0	1.5	2.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	164	139	21	144	122	206	2577	1150	58	3500	1087
V/C Ratio(X)	0.30	0.25	0.74	0.28	0.48	0.26	0.60	0.16	0.01	0.36	0.08	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	356	2577	1150	196	3500	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	57.4	60.1	66.1	59.7	58.7	58.1	0.0	0.0	64.0	7.3	7.0
Incr Delay (d2), s/veh	1.9	1.9	16.5	2.6	4.2	1.9	1.0	0.1	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.4	4.1	0.2	2.4	1.1	1.9	0.0	0.0	0.7	0.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	59.3	76.6	68.8	64.0	60.7	59.1	0.1	0.0	65.4	7.3	7.0
LnGrp LOS	E	E	E	E	E	E	E	A	A	E	A	A
Approach Vol, veh/h		154			107			543			313	
Approach Delay, s/veh		71.4			63.3			13.5			11.2	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	97.5	7.1	16.2	9.7	102.1	5.6	17.6
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	6.5	4.5	2.7	6.8	3.5	2.0	2.5	10.6
Green Ext Time (p_c), s	0.1	4.2	0.0	0.8	0.0	6.4	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	45	81	31	89	18	120	451	24	37	354	10
Future Volume (veh/h)	11	45	81	31	89	18	120	451	24	37	354	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	12	51	92	35	101	20	136	512	27	42	402	11
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	1	1	1
Cap, veh/h	39	150	127	78	136	27	160	3459	1074	84	3218	976
Arrive On Green	0.02	0.08	0.08	0.04	0.09	0.09	0.09	0.67	0.67	0.09	1.00	1.00
Sat Flow, veh/h	1810	1900	1610	1795	1528	303	1810	5187	1610	1795	5147	1561
Grp Volume(v), veh/h	12	51	92	35	0	121	136	512	27	42	402	11
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	0	1831	1810	1729	1610	1795	1716	1561
Q Serve(g_s), s	0.9	3.4	7.5	2.6	0.0	8.7	10.0	4.9	0.8	3.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	3.4	7.5	2.6	0.0	8.7	10.0	4.9	0.8	3.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	150	127	78	0	163	160	3459	1074	84	3218	976
V/C Ratio(X)	0.31	0.34	0.72	0.45	0.00	0.74	0.85	0.15	0.03	0.50	0.12	0.01
Avail Cap(c_a), veh/h	185	612	519	205	0	590	197	3459	1074	196	3218	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.97	0.97	0.97	0.99	0.99	0.99
Uniform Delay (d), s/veh	65.1	58.8	60.7	63.0	0.0	60.0	60.6	8.3	7.6	59.6	0.0	0.0
Incr Delay (d2), s/veh	1.7	1.6	8.9	1.5	0.0	13.7	20.2	0.1	0.0	1.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.7	3.4	1.2	0.0	4.7	5.4	1.7	0.3	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	60.4	69.6	64.5	0.0	73.7	80.8	8.4	7.7	61.3	0.1	0.0
LnGrp LOS	E	E	E	E	A	E	F	A	A	E	A	A
Approach Vol, veh/h		155			156			675			455	
Approach Delay, s/veh		66.4			71.6			23.0			5.7	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	90.1	9.1	18.5	11.6	95.7	10.4	17.2
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	12.0	2.0	2.9	10.7	5.0	6.9	4.6	9.5
Green Ext Time (p_c), s	0.0	6.3	0.0	1.3	0.0	8.1	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	323	113	34	315	145	243	657	89	127	464	31
Future Volume (veh/h)	36	323	113	34	315	145	243	657	89	127	464	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	38	344	120	36	335	154	259	699	95	135	494	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	152	520	232	148	546	243	309	3041	944	191	2847	872
Arrive On Green	0.04	0.14	0.14	0.04	0.15	0.15	0.09	0.59	0.59	0.05	0.55	0.55
Sat Flow, veh/h	3510	3610	1610	3510	3610	1607	3510	5187	1609	3483	5147	1576
Grp Volume(v), veh/h	38	344	120	36	335	154	259	699	95	135	494	33
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1607	1755	1729	1609	1742	1716	1576
Q Serve(g_s), s	1.5	13.1	10.0	1.4	12.6	13.0	10.5	9.3	3.8	5.5	6.9	1.4
Cycle Q Clear(g_c), s	1.5	13.1	10.0	1.4	12.6	13.0	10.5	9.3	3.8	5.5	6.9	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	520	232	148	546	243	309	3041	944	191	2847	872
V/C Ratio(X)	0.25	0.66	0.52	0.24	0.61	0.63	0.84	0.23	0.10	0.71	0.17	0.04
Avail Cap(c_a), veh/h	470	1090	486	441	1090	485	453	3041	944	449	2847	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	67.1	58.7	57.4	67.2	57.6	57.7	65.1	14.3	13.2	67.4	16.0	14.8
Incr Delay (d2), s/veh	0.3	3.4	4.2	0.2	0.9	2.2	5.9	0.2	0.2	1.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.2	4.3	0.6	5.7	5.4	4.9	3.5	1.4	2.5	2.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.4	62.1	61.5	67.4	58.5	60.0	71.0	14.5	13.4	69.1	16.1	14.9
LnGrp LOS	E	E	E	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		502			525			1053			662	
Approach Delay, s/veh		62.4			59.5			28.3			26.9	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	85.9	11.9	28.1	14.3	90.7	12.9	27.1
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	2.5	8.9	3.5	15.0	7.5	11.3	3.4	15.1
Green Ext Time (p_c), s	0.2	7.7	0.0	3.5	0.1	11.3	0.0	5.4

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	53	0	0	0	101	212	1	0	231	3
Future Vol, veh/h	4	0	53	0	0	0	101	212	1	0	231	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	5	0	62	0	0	0	117	247	1	0	269	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	753	753	271	784	754	248	272	0	0	248	0	0
Stage 1	271	271	-	482	482	-	-	-	-	-	-	-
Stage 2	482	482	-	302	272	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	329	341	773	311	338	791	1297	-	-	1324	-	-
Stage 1	739	689	-	565	553	-	-	-	-	-	-	-
Stage 2	569	557	-	707	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	305	773	263	303	791	1297	-	-	1324	-	-
Mov Cap-2 Maneuver	303	305	-	263	303	-	-	-	-	-	-	-
Stage 1	661	689	-	506	495	-	-	-	-	-	-	-
Stage 2	509	499	-	651	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	0	2.6	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1297	-	-	697	-	1324	-	-
HCM Lane V/C Ratio	0.091	-	-	0.095	-	-	-	-
HCM Control Delay (s)	8.1	0	-	10.7	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.3	-	0	-	-

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	69	30	6	86	99	46	205	6	95	190	2
Future Vol, veh/h	3	69	30	6	86	99	46	205	6	95	190	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	1	1	1	0	0	0	1	1	1	1	1	1
Mvmt Flow	3	78	34	7	98	113	52	233	7	108	216	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	11.2	12.7	13.5
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	3%	3%	33%
Vol Thru, %	80%	68%	45%	66%
Vol Right, %	2%	29%	52%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	102	191	287
LT Vol	46	3	6	95
Through Vol	205	69	86	190
RT Vol	6	30	99	2
Lane Flow Rate	292	116	217	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.439	0.188	0.33	0.489
Departure Headway (Hd)	5.407	5.824	5.473	5.394
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	663	613	653	665
Service Time	3.459	3.89	3.532	3.443
HCM Lane V/C Ratio	0.44	0.189	0.332	0.49
HCM Control Delay	12.7	10.2	11.2	13.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.2	0.7	1.4	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	390	81	19	342	85	104	152	26	76	142	13
Future Volume (veh/h)	20	390	81	19	342	85	104	152	26	76	142	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	22	419	87	20	368	91	112	163	28	82	153	14
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	83	794	354	79	416	352	149	944	800	144	938	795
Arrive On Green	0.05	0.22	0.22	0.04	0.22	0.22	0.08	0.50	0.50	0.08	0.50	0.50
Sat Flow, veh/h	1795	3582	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	22	419	87	20	368	91	112	163	28	82	153	14
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	1.5	13.4	5.8	1.4	24.4	6.1	7.9	6.1	1.2	5.7	5.8	0.6
Cycle Q Clear(g_c), s	1.5	13.4	5.8	1.4	24.4	6.1	7.9	6.1	1.2	5.7	5.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	794	354	79	416	352	149	944	800	144	938	795
V/C Ratio(X)	0.26	0.53	0.25	0.25	0.88	0.26	0.75	0.17	0.04	0.57	0.16	0.02
Avail Cap(c_a), veh/h	290	937	418	292	497	421	290	944	800	290	938	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	44.6	41.6	60.1	49.2	42.0	58.3	17.7	16.5	57.6	17.8	16.5
Incr Delay (d2), s/veh	0.5	0.7	0.5	0.6	16.7	0.6	2.8	0.4	0.1	1.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.8	2.3	0.6	13.1	2.4	3.6	2.7	0.4	2.7	2.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.4	45.3	42.1	60.8	65.9	42.7	61.1	18.1	16.6	58.9	18.2	16.6
LnGrp LOS	E	D	D	E	E	D	E	B	B	E	B	B
Approach Vol, veh/h		528			479			303			249	
Approach Delay, s/veh		45.4			61.3			33.9			31.5	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	70.7	10.0	34.5	14.4	71.1	9.7	34.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	9.9	7.8	3.5	26.4	7.7	8.1	3.4	15.4
Green Ext Time (p_c), s	0.1	1.2	0.0	2.1	0.1	0.9	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	0	0	0	0	30	0	0
Future Vol, veh/h	0	0	0	0	30	0	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	2
Mvmt Flow	0	0	0	0	40	0	0
Number of Lanes	0	0	1	0	1	0	1

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	2	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	0	7.4
HCM LOS	-	A

Lane	NBLn1	NBLn2	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	30	0	0
LT Vol	0	0	0
Through Vol	30	0	0
RT Vol	0	0	0
Lane Flow Rate	40	0	0
Geometry Grp	7	7	2
Degree of Util (X)	0.05	0	0
Departure Headway (Hd)	4.5	4.534	3.971
Convergence, Y/N	Yes	Yes	Yes
Cap	801	0	0
Service Time	2.2	2.234	1.998
HCM Lane V/C Ratio	0.05	0	0
HCM Control Delay	7.4	7.2	7
HCM Lane LOS	A	N	N
HCM 95th-tile Q	0.2	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	343	103	77	304	7	140	44	70	10	24	26
Future Volume (veh/h)	32	343	103	77	304	7	140	44	70	10	24	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	361	108	81	320	7	147	46	74	11	25	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	495	220	240	557	248	172	1644	733	612	1931	861
Arrive On Green	0.05	0.14	0.14	0.07	0.15	0.15	0.09	0.46	0.46	0.17	0.53	0.53
Sat Flow, veh/h	3483	3582	1591	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	34	361	108	81	320	7	147	46	74	11	25	27
Grp Sat Flow(s),veh/h/ln	1742	1791	1591	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	1.3	13.5	8.8	3.1	11.5	0.5	11.2	1.0	3.7	0.4	0.5	1.1
Cycle Q Clear(g_c), s	1.3	13.5	8.8	3.1	11.5	0.5	11.2	1.0	3.7	0.4	0.5	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	495	220	240	557	248	172	1644	733	612	1931	861
V/C Ratio(X)	0.19	0.73	0.49	0.34	0.57	0.03	0.86	0.03	0.10	0.02	0.01	0.03
Avail Cap(c_a), veh/h	607	870	386	612	877	391	315	1644	733	612	1931	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.5	57.8	55.8	62.2	54.9	50.3	62.4	21.0	21.8	47.9	15.3	15.4
Incr Delay (d2), s/veh	0.2	3.0	2.5	0.3	1.4	0.1	4.6	0.0	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.2	3.6	1.4	5.2	0.2	5.3	0.4	1.4	0.2	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	60.8	58.2	62.5	56.3	50.3	67.0	21.1	22.0	47.9	15.3	15.5
LnGrp LOS	E	E	E	E	E	D	E	C	C	D	B	B
Approach Vol, veh/h		503			408			267			63	
Approach Delay, s/veh		60.5			57.4			46.6			21.1	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	80.6	12.9	27.6	30.0	69.5	15.2	25.4
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	13.2	3.1	3.3	13.5	2.4	5.7	5.1	15.5
Green Ext Time (p_c), s	0.1	0.5	0.0	2.5	0.0	1.0	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	67	87	156	290	223	60
Future Volume (veh/h)	67	87	156	290	223	60
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1900	1900
Adj Flow Rate, veh/h	83	107	193	358	275	74
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	1	1	1	1	0	0
Cap, veh/h	167	149	231	2819	2206	984
Arrive On Green	0.09	0.09	0.13	0.79	0.61	0.61
Sat Flow, veh/h	1795	1598	1795	3676	3705	1610
Grp Volume(v), veh/h	83	107	193	358	275	74
Grp Sat Flow(s),veh/h/ln	1795	1598	1795	1791	1805	1610
Q Serve(g_s), s	3.7	5.5	8.9	2.0	2.7	1.6
Cycle Q Clear(g_c), s	3.7	5.5	8.9	2.0	2.7	1.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	167	149	231	2819	2206	984
V/C Ratio(X)	0.50	0.72	0.83	0.13	0.12	0.08
Avail Cap(c_a), veh/h	530	472	380	2819	2206	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.97	0.97
Uniform Delay (d), s/veh	36.7	37.5	36.1	2.1	7.0	6.7
Incr Delay (d2), s/veh	0.9	2.4	3.5	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.2	4.0	0.5	0.9	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.5	39.9	39.7	2.2	7.1	6.9
LnGrp LOS	D	D	D	A	A	A
Approach Vol, veh/h	190			551	349	
Approach Delay, s/veh	38.9			15.3	7.0	
Approach LOS	D			B	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.0	57.2			72.2	12.8
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	18.0	27.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	10.9	4.7			4.0	7.5
Green Ext Time (p_c), s	0.2	2.3			3.3	0.2

Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	415	249	22	385	74	124	400	46	43	253	27
Future Volume (veh/h)	22	415	249	22	385	74	124	400	46	43	253	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	23	441	265	23	410	79	132	426	49	46	269	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	67	477	404	66	473	401	155	1922	837	93	1810	788
Arrive On Green	0.04	0.25	0.25	0.04	0.25	0.25	0.09	0.54	0.54	0.05	0.50	0.50
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1560	1810	3610	1571
Grp Volume(v), veh/h	23	441	265	23	410	79	132	426	49	46	269	29
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1560	1810	1805	1571
Q Serve(g_s), s	1.9	34.0	22.1	1.9	31.2	5.9	10.9	9.4	2.3	3.7	6.0	1.4
Cycle Q Clear(g_c), s	1.9	34.0	22.1	1.9	31.2	5.9	10.9	9.4	2.3	3.7	6.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	477	404	66	473	401	155	1922	837	93	1810	788
V/C Ratio(X)	0.34	0.92	0.66	0.35	0.87	0.20	0.85	0.22	0.06	0.50	0.15	0.04
Avail Cap(c_a), veh/h	374	503	426	311	473	401	371	1922	837	314	1810	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	54.8	50.3	70.5	53.8	44.3	67.6	18.3	16.6	69.3	20.1	19.0
Incr Delay (d2), s/veh	1.1	23.0	4.1	1.1	15.9	0.4	4.7	0.3	0.1	1.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	18.9	9.2	0.9	16.6	2.3	5.1	3.9	0.8	1.8	2.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	77.7	54.4	71.6	69.7	44.6	72.2	18.5	16.7	70.8	20.3	19.1
LnGrp LOS	E	E	D	E	E	D	E	B	B	E	C	B
Approach Vol, veh/h		729			512			607			344	
Approach Delay, s/veh		69.1			65.9			30.1			27.0	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	80.5	9.5	43.0	11.7	85.8	9.5	43.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	13.0	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	12.9	8.0	3.9	33.2	5.7	11.4	3.9	36.0
Green Ext Time (p_c), s	0.1	2.8	0.0	0.5	0.0	4.3	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	342	175	36	302	77	146	558	67	77	454	13
Future Volume (veh/h)	15	342	175	36	302	77	146	558	67	77	454	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	372	190	39	328	84	159	607	73	84	493	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	61	418	354	107	466	395	186	1530	184	164	1650	47
Arrive On Green	0.03	0.22	0.22	0.06	0.25	0.25	0.10	0.47	0.47	0.09	0.46	0.46
Sat Flow, veh/h	1795	1885	1595	1795	1885	1598	1810	3237	388	1810	3582	102
Grp Volume(v), veh/h	16	372	190	39	328	84	159	338	342	84	248	259
Grp Sat Flow(s),veh/h/ln	1795	1885	1595	1795	1885	1598	1810	1805	1820	1810	1805	1879
Q Serve(g_s), s	1.1	23.9	13.1	2.6	19.8	5.2	10.8	15.2	15.3	5.5	10.7	10.8
Cycle Q Clear(g_c), s	1.1	23.9	13.1	2.6	19.8	5.2	10.8	15.2	15.3	5.5	10.7	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.05
Lane Grp Cap(c), veh/h	61	418	354	107	466	395	186	853	861	164	831	866
V/C Ratio(X)	0.26	0.89	0.54	0.37	0.70	0.21	0.85	0.40	0.40	0.51	0.30	0.30
Avail Cap(c_a), veh/h	158	593	502	158	593	502	304	853	861	232	831	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	58.8	47.1	43.0	56.5	42.9	37.4	55.1	21.4	21.4	54.2	21.1	21.1
Incr Delay (d2), s/veh	0.8	10.4	0.9	0.8	2.8	0.3	6.3	1.4	1.4	0.9	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.1	5.1	1.2	9.3	2.0	5.1	6.5	6.6	2.5	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	57.6	43.8	57.3	45.7	37.7	61.4	22.8	22.8	55.1	22.0	21.9
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		578			451			839			591	
Approach Delay, s/veh		53.1			45.2			30.1			26.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	63.3	8.3	36.6	15.4	64.8	11.4	33.4
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	12.9	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	12.8	12.8	3.1	21.8	7.5	17.3	4.6	25.9
Green Ext Time (p_c), s	0.1	2.6	0.0	2.0	0.0	4.3	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1653	529	0	1451	540	0	0	0	66	0	342
Future Volume (veh/h)	0	1653	529	0	1451	540	0	0	0	66	0	342
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885				1885	0	1885
Adj Flow Rate, veh/h	0	1670	534	0	1680	0				67	0	345
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	1	1	0	1	1				1	0	1
Cap, veh/h	0	3259	803	0	3789					570	0	460
Arrive On Green	0.00	0.50	0.50	0.00	0.50	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	6749	1598	0	7541	1598				3483	0	2812
Grp Volume(v), veh/h	0	1670	534	0	1680	0				67	0	345
Grp Sat Flow(s),veh/h/ln	0	1621	1598	0	1885	1598				1742	0	1406
Q Serve(g_s), s	0.0	22.8	33.0	0.0	18.8	0.0				2.2	0.0	15.4
Cycle Q Clear(g_c), s	0.0	22.8	33.0	0.0	18.8	0.0				2.2	0.0	15.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3259	803	0	3789					570	0	460
V/C Ratio(X)	0.00	0.51	0.67	0.00	0.44					0.12	0.00	0.75
Avail Cap(c_a), veh/h	0	3341	823	0	3885					1317	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.0	24.5	0.0	21.0	0.0				47.1	0.0	52.6
Incr Delay (d2), s/veh	0.0	0.6	4.3	0.0	0.4	0.0				0.2	0.0	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.4	12.7	0.0	8.0	0.0				1.0	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.6	28.9	0.0	21.4	0.0				47.3	0.0	58.6
LnGrp LOS	A	C	C	A	C					D	A	E
Approach Vol, veh/h		2204			1680						412	
Approach Delay, s/veh		24.1			21.4						56.8	
Approach LOS		C			C						E	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	73.1	28.9	73.1
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	68.0	49.9	68.0
Max Q Clear Time (g_c+I1), s	35.0	17.4	20.8
Green Ext Time (p_c), s	31.4	4.2	39.8

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1359	360	0	1494	184	497	0	677	0	0	0
Future Volume (veh/h)	0	1359	360	0	1494	184	497	0	677	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885	1885	0	1885			
Adj Flow Rate, veh/h	0	1401	0	0	1540	190	512	0	698			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	1	0	1	1	1	0	1			
Cap, veh/h	0	2930		0	4346	909	1651	0	917			
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57	0.33	0.00	0.33			
Sat Flow, veh/h	0	5316	1598	0	7993	1598	5063	0	2812			
Grp Volume(v), veh/h	0	1401	0	0	1540	190	512	0	698			
Grp Sat Flow(s),veh/h/ln	0	1716	1598	0	1527	1598	1688	0	1406			
Q Serve(g_s), s	0.0	20.9	0.0	0.0	14.1	7.6	9.9	0.0	28.9			
Cycle Q Clear(g_c), s	0.0	20.9	0.0	0.0	14.1	7.6	9.9	0.0	28.9			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2930		0	4346	909	1651	0	917			
V/C Ratio(X)	0.00	0.48		0.00	0.35	0.21	0.31	0.00	0.76			
Avail Cap(c_a), veh/h	0	2930		0	4346	909	1651	0	917			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.95	0.00	0.00	0.65	0.65	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	16.6	0.0	0.0	15.1	13.7	32.8	0.0	39.3			
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.1	0.3	0.5	0.0	5.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	7.8	0.0	0.0	4.7	2.7	4.1	0.0	10.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.1	0.0	0.0	15.3	14.0	33.3	0.0	45.2			
LnGrp LOS	A	B		A	B	B	C	A	D			
Approach Vol, veh/h		1401			1730			1210				
Approach Delay, s/veh		17.1			15.1			40.2				
Approach LOS		B			B			D				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		80.8				80.8		49.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		74.0				74.0		42.4				
Max Q Clear Time (g_c+I1), s		22.9				16.1		30.9				
Green Ext Time (p_c), s		36.6				46.9		7.4				

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	1368	302	316	1062	132	350	402	276	271	262	266
Future Volume (veh/h)	366	1368	302	316	1062	132	350	402	276	271	262	266
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	381	1425	315	329	1106	138	365	419	288	282	273	277
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	429	1952	606	378	1876	582	416	957	437	332	1305	703
Arrive On Green	0.12	0.38	0.38	0.11	0.36	0.36	0.12	0.28	0.28	0.10	0.25	0.25
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1579	3483	5147	2773
Grp Volume(v), veh/h	381	1425	315	329	1106	138	365	419	288	282	273	277
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1579	1742	1716	1387
Q Serve(g_s), s	16.7	36.8	23.6	14.4	27.0	9.3	15.9	15.5	25.0	12.4	6.5	12.8
Cycle Q Clear(g_c), s	16.7	36.8	23.6	14.4	27.0	9.3	15.9	15.5	25.0	12.4	6.5	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	1952	606	378	1876	582	416	957	437	332	1305	703
V/C Ratio(X)	0.89	0.73	0.52	0.87	0.59	0.24	0.88	0.44	0.66	0.85	0.21	0.39
Avail Cap(c_a), veh/h	562	1952	606	562	1876	582	679	957	437	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	41.3	37.2	68.0	39.9	34.3	67.2	46.1	49.6	69.0	45.6	48.0
Incr Delay (d2), s/veh	9.2	2.0	2.6	6.8	1.4	1.0	4.2	1.5	7.6	2.4	0.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	15.6	9.5	6.7	11.4	3.8	7.2	6.8	10.6	5.5	2.8	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	43.3	39.8	74.8	41.2	35.2	71.4	47.6	57.1	71.4	46.0	49.6
LnGrp LOS	E	D	D	E	D	D	E	D	E	E	D	D
Approach Vol, veh/h		2121			1573			1072			832	
Approach Delay, s/veh		48.7			47.7			58.3			55.8	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.1	62.5	19.8	48.6	21.8	64.8	23.4	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	18.7	29.0	14.4	27.0	16.4	38.8	17.9	14.8
Green Ext Time (p_c), s	0.4	4.7	0.4	2.2	0.4	0.1	0.5	3.1

Intersection Summary	
HCM 6th Ctrl Delay	51.3
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	342	70	29	296	6	80	11	31	4	13	9
Future Vol, veh/h	9	342	70	29	296	6	80	11	31	4	13	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	364	74	31	315	6	85	12	33	4	14	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.2	12.4	10.4	9.2
HCM LOS	B	B	B	A

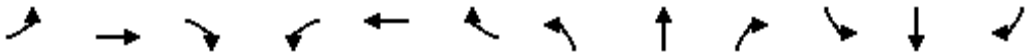
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	66%	2%	9%	15%
Vol Thru, %	9%	81%	89%	50%
Vol Right, %	25%	17%	2%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	421	331	26
LT Vol	80	9	29	4
Through Vol	11	342	296	13
RT Vol	31	70	6	9
Lane Flow Rate	130	448	352	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.21	0.582	0.475	0.045
Departure Headway (Hd)	5.828	4.68	4.859	5.921
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	619	761	732	608
Service Time	3.829	2.767	2.955	3.928
HCM Lane V/C Ratio	0.21	0.589	0.481	0.046
HCM Control Delay	10.4	14.2	12.4	9.2
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	0.8	3.8	2.6	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	276	75	47	240	128	109	119	73	110	112	14
Future Volume (veh/h)	23	276	75	47	240	128	109	119	73	110	112	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	24	291	79	49	253	135	115	125	77	116	118	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	61	526	235	83	301	255	138	1128	956	139	981	125
Arrive On Green	0.03	0.15	0.15	0.05	0.16	0.16	0.08	0.60	0.60	0.08	0.60	0.60
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1639	208
Grp Volume(v), veh/h	24	291	79	49	253	135	115	125	77	116	0	133
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1847
Q Serve(g_s), s	2.0	11.3	6.7	4.0	19.5	11.6	9.5	4.3	3.1	9.6	0.0	4.7
Cycle Q Clear(g_c), s	2.0	11.3	6.7	4.0	19.5	11.6	9.5	4.3	3.1	9.6	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	61	526	235	83	301	255	138	1128	956	139	0	1106
V/C Ratio(X)	0.40	0.55	0.34	0.59	0.84	0.53	0.84	0.11	0.08	0.84	0.00	0.12
Avail Cap(c_a), veh/h	371	812	362	371	427	362	371	1128	956	371	0	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.0	59.4	57.4	70.1	61.2	57.9	68.3	13.0	12.7	68.3	0.0	13.0
Incr Delay (d2), s/veh	1.6	1.7	1.6	2.4	13.6	3.2	5.0	0.2	0.2	5.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.2	0.1	1.9	10.3	4.9	4.5	1.8	1.1	4.5	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	61.1	59.0	72.6	74.8	61.0	73.3	13.2	12.9	73.3	0.0	13.2
LnGrp LOS	E	E	E	E	E	E	E	B	B	E	A	B
Approach Vol, veh/h		394			437			317			249	
Approach Delay, s/veh		61.4			70.3			34.9			41.2	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	95.5	9.1	29.9	15.6	95.4	11.0	28.0
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	11.5	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	11.5	6.7	4.0	21.5	11.6	6.3	6.0	13.3
Green Ext Time (p_c), s	0.1	0.6	0.0	2.4	0.1	0.8	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	70	198	14	267	53	364	305	14	62	434	86
Future Volume (veh/h)	22	70	198	14	267	53	364	305	14	62	434	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	29	92	261	18	351	70	479	401	18	82	571	113
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	71	445	377	52	414	351	353	1874	836	103	2410	748
Arrive On Green	0.04	0.24	0.24	0.03	0.22	0.22	0.03	0.17	0.17	0.06	0.47	0.47
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	29	92	261	18	351	70	479	401	18	82	571	113
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	2.1	5.3	20.1	1.3	24.3	4.9	13.7	13.0	1.3	6.1	9.0	5.5
Cycle Q Clear(g_c), s	2.1	5.3	20.1	1.3	24.3	4.9	13.7	13.0	1.3	6.1	9.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	445	377	52	414	351	353	1874	836	103	2410	748
V/C Ratio(X)	0.41	0.21	0.69	0.35	0.85	0.20	1.36	0.21	0.02	0.80	0.24	0.15
Avail Cap(c_a), veh/h	205	617	523	211	612	519	353	1874	836	194	2410	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	41.4	47.1	64.3	50.4	42.8	65.2	32.0	27.2	62.8	21.2	20.3
Incr Delay (d2), s/veh	1.4	0.5	5.3	1.5	9.8	0.5	176.7	0.3	0.0	5.2	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	8.6	0.6	12.5	2.0	15.1	6.2	0.5	2.9	3.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	42.0	52.4	65.8	60.2	43.3	241.9	32.3	27.2	68.0	21.4	20.7
LnGrp LOS	E	D	D	E	E	D	F	C	C	E	C	C
Approach Vol, veh/h		382			439			898			766	
Approach Delay, s/veh		50.8			57.7			144.0			26.3	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	69.4	9.9	35.7	13.1	76.3	7.9	37.7
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	15.7	11.0	4.1	26.3	8.1	15.0	3.3	22.1
Green Ext Time (p_c), s	0.0	9.6	0.0	3.6	0.0	5.5	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	78.2
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	126	203	16	131	55	84	567	16	48	581	74
Future Volume (veh/h)	67	126	203	16	131	55	84	567	16	48	581	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	85	159	257	20	166	70	106	718	20	61	735	94
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	106	383	325	55	204	86	129	2793	867	96	2716	823
Arrive On Green	0.06	0.20	0.20	0.03	0.16	0.16	0.07	0.55	0.55	0.11	1.00	1.00
Sat Flow, veh/h	1781	1870	1585	1767	1239	522	1781	5106	1585	1795	5147	1560
Grp Volume(v), veh/h	85	159	257	20	0	236	106	718	20	61	735	94
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1767	0	1761	1781	1702	1585	1795	1716	1560
Q Serve(g_s), s	6.4	10.0	20.8	1.5	0.0	17.4	7.9	10.0	0.8	4.4	0.0	0.0
Cycle Q Clear(g_c), s	6.4	10.0	20.8	1.5	0.0	17.4	7.9	10.0	0.8	4.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	383	325	55	0	290	129	2793	867	96	2716	823
V/C Ratio(X)	0.80	0.42	0.79	0.36	0.00	0.81	0.82	0.26	0.02	0.64	0.27	0.11
Avail Cap(c_a), veh/h	143	603	511	202	0	607	194	2793	867	196	2716	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94
Uniform Delay (d), s/veh	62.7	46.6	50.9	64.1	0.0	54.4	61.7	16.1	14.0	59.1	0.0	0.0
Incr Delay (d2), s/veh	15.1	0.9	5.3	1.5	0.0	11.5	9.3	0.2	0.0	2.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.8	8.7	0.7	0.0	8.7	3.9	4.0	0.3	2.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	47.5	56.2	65.5	0.0	65.9	71.1	16.3	14.1	61.5	0.2	0.3
LnGrp LOS	E	D	E	E	A	E	E	B	B	E	A	A
Approach Vol, veh/h		501			256			844			890	
Approach Delay, s/veh		57.1			65.9			23.2			4.4	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	76.9	14.2	28.7	12.5	79.5	8.8	34.2
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	10.8	46.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	19.4	2.0	8.4	19.4	6.4	12.0	3.5	22.8
Green Ext Time (p_c), s	0.0	14.8	0.0	2.8	0.0	11.6	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	255	145	47	332	113	160	587	50	166	740	50
Future Volume (veh/h)	29	255	145	47	332	113	160	587	50	166	740	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	33	290	165	53	377	128	182	667	57	189	841	57
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	1	1	1
Cap, veh/h	140	538	240	167	592	263	231	2831	878	239	2882	883
Arrive On Green	0.04	0.15	0.15	0.05	0.17	0.17	0.07	0.56	0.56	0.07	0.56	0.56
Sat Flow, veh/h	3456	3554	1585	3428	3526	1570	3428	5066	1572	3483	5147	1576
Grp Volume(v), veh/h	33	290	165	53	377	128	182	667	57	189	841	57
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1570	1714	1689	1572	1742	1716	1576
Q Serve(g_s), s	1.3	10.9	14.3	2.2	14.4	10.7	7.6	9.7	2.4	7.7	12.5	2.4
Cycle Q Clear(g_c), s	1.3	10.9	14.3	2.2	14.4	10.7	7.6	9.7	2.4	7.7	12.5	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	538	240	167	592	263	231	2831	878	239	2882	883
V/C Ratio(X)	0.24	0.54	0.69	0.32	0.64	0.49	0.79	0.24	0.06	0.79	0.29	0.06
Avail Cap(c_a), veh/h	462	1073	479	430	1065	474	442	2831	878	449	2882	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	67.4	56.8	58.3	66.6	56.2	54.7	66.6	16.3	14.6	66.5	16.8	14.6
Incr Delay (d2), s/veh	0.3	2.0	8.0	0.2	1.0	1.2	2.2	0.2	0.1	2.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.1	6.3	1.0	6.5	4.4	3.4	3.9	0.9	3.5	5.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	58.8	66.2	66.9	57.2	55.8	68.8	16.4	14.8	68.6	17.0	14.7
LnGrp LOS	E	E	E	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		488			558			906			1087	
Approach Delay, s/veh		61.9			57.8			26.9			25.9	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	86.9	11.5	30.5	16.3	86.7	13.9	28.2
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	9.6	14.5	3.3	16.4	9.7	11.7	4.2	16.3
Green Ext Time (p_c), s	0.2	13.2	0.0	4.2	0.2	11.2	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	101	0	1	0	317	202	0	0	247	6
Future Vol, veh/h	1	0	101	0	1	0	317	202	0	0	247	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	1	0	125	0	1	0	391	249	0	0	305	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1341	1340	309	1402	1343	249	312	0	0	249	0	0
Stage 1	309	309	-	1031	1031	-	-	-	-	-	-	-
Stage 2	1032	1031	-	371	312	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	129	152	729	117	152	790	1237	-	-	1317	-	-
Stage 1	699	658	-	281	310	-	-	-	-	-	-	-
Stage 2	280	309	-	649	658	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	91	96	729	69	96	790	1237	-	-	1317	-	-
Mov Cap-2 Maneuver	91	96	-	69	96	-	-	-	-	-	-	-
Stage 1	442	658	-	178	196	-	-	-	-	-	-	-
Stage 2	176	196	-	538	658	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	43	5.7	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1237	-	-	682	96	1317	-	-
HCM Lane V/C Ratio	0.316	-	-	0.185	0.013	-	-	-
HCM Control Delay (s)	9.3	0	-	11.5	43	0	-	-
HCM Lane LOS	A	A	-	B	E	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	0.7	0	0	-	-

Intersection	
Intersection Delay, s/veh	69.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	119	44	12	160	306	41	212	8	126	225	3
Future Vol, veh/h	3	119	44	12	160	306	41	212	8	126	225	3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	3	3	3	4	4	4	4	4	4	2	2	2
Mvmt Flow	4	143	53	14	193	369	49	255	10	152	271	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	19.8	121.5	30	53.3
HCM LOS	C	F	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	2%	3%	36%
Vol Thru, %	81%	72%	33%	64%
Vol Right, %	3%	27%	64%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	261	166	478	354
LT Vol	41	3	12	126
Through Vol	212	119	160	225
RT Vol	8	44	306	3
Lane Flow Rate	314	200	576	427
Geometry Grp	1	1	1	1
Degree of Util (X)	0.705	0.469	1.17	0.913
Departure Headway (Hd)	8.711	9.039	7.316	8.299
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	418	402	501	439
Service Time	6.711	7.039	5.316	6.299
HCM Lane V/C Ratio	0.751	0.498	1.15	0.973
HCM Control Delay	30	19.8	121.5	53.3
HCM Lane LOS	D	C	F	F
HCM 95th-tile Q	5.3	2.4	20.8	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	358	152	69	346	91	127	150	49	103	159	29
Future Volume (veh/h)	33	358	152	69	346	91	127	150	49	103	159	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	426	181	82	412	108	151	179	58	123	189	35
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	115	812	362	142	451	382	177	852	722	149	823	697
Arrive On Green	0.06	0.23	0.23	0.08	0.24	0.24	0.10	0.46	0.46	0.08	0.44	0.44
Sat Flow, veh/h	1795	3582	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	39	426	181	82	412	108	151	179	58	123	189	35
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.7	13.6	12.8	5.8	28.1	7.3	10.8	7.5	2.7	8.8	8.2	1.6
Cycle Q Clear(g_c), s	2.7	13.6	12.8	5.8	28.1	7.3	10.8	7.5	2.7	8.8	8.2	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	812	362	142	451	382	177	852	722	149	823	697
V/C Ratio(X)	0.34	0.52	0.50	0.58	0.91	0.28	0.85	0.21	0.08	0.83	0.23	0.05
Avail Cap(c_a), veh/h	290	937	418	285	485	411	288	852	722	288	823	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	44.1	43.8	57.7	47.9	40.0	57.6	21.3	20.0	58.6	22.7	20.9
Incr Delay (d2), s/veh	0.5	0.7	1.3	1.4	21.8	0.7	6.8	0.6	0.2	4.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.1	5.2	2.7	15.7	2.9	5.2	3.4	1.1	4.2	3.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	44.8	45.2	59.1	69.6	40.6	64.4	21.9	20.2	63.0	23.3	21.0
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	C	C
Approach Vol, veh/h		646			602			388			347	
Approach Delay, s/veh		45.7			63.0			38.2			37.2	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	63.2	12.3	37.6	14.9	65.2	14.4	35.5
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	12.8	10.2	4.7	30.1	10.8	9.5	7.8	15.6
Green Ext Time (p_c), s	0.1	1.6	0.0	1.5	0.1	1.3	0.1	4.9

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	0	0	279	0	83	0	96
Future Vol, veh/h	0	0	279	0	83	0	96
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	9
Mvmt Flow	0	0	404	0	120	0	139
Number of Lanes	0	0	1	0	1	0	1

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	2	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	13	9.2
HCM LOS	B	A

Lane	NBLn1	NBLn2	WBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	83	96	279
LT Vol	0	0	279
Through Vol	83	0	0
RT Vol	0	96	0
Lane Flow Rate	120	139	404
Geometry Grp	7	7	2
Degree of Util (X)	0.184	0.191	0.531
Departure Headway (Hd)	5.504	4.952	4.727
Convergence, Y/N	Yes	Yes	Yes
Cap	651	722	764
Service Time	3.249	2.697	2.76
HCM Lane V/C Ratio	0.184	0.193	0.529
HCM Control Delay	9.5	8.9	13
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.7	0.7	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	337	118	109	294	62	80	114	86	59	231	147
Future Volume (veh/h)	60	337	118	109	294	62	80	114	86	59	231	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	72	406	142	131	354	75	96	137	104	71	278	177
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	230	552	245	245	570	254	119	1483	662	588	1870	834
Arrive On Green	0.07	0.16	0.16	0.07	0.16	0.16	0.07	0.43	0.43	0.17	0.54	0.54
Sat Flow, veh/h	3428	3526	1566	3456	3554	1585	1711	3413	1522	3374	3469	1547
Grp Volume(v), veh/h	72	406	142	131	354	75	96	137	104	71	278	177
Grp Sat Flow(s),veh/h/ln	1714	1763	1566	1728	1777	1585	1711	1706	1522	1687	1735	1547
Q Serve(g_s), s	2.8	15.4	11.8	5.1	13.0	5.8	7.7	3.3	5.8	2.5	5.6	8.3
Cycle Q Clear(g_c), s	2.8	15.4	11.8	5.1	13.0	5.8	7.7	3.3	5.8	2.5	5.6	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	552	245	245	570	254	119	1483	662	588	1870	834
V/C Ratio(X)	0.31	0.74	0.58	0.53	0.62	0.29	0.80	0.09	0.16	0.12	0.15	0.21
Avail Cap(c_a), veh/h	598	856	380	602	863	385	298	1483	662	588	1870	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	56.3	54.8	62.8	54.8	51.8	64.2	23.3	24.0	48.8	16.2	16.8
Incr Delay (d2), s/veh	0.3	2.8	3.2	0.7	1.6	0.9	4.7	0.1	0.5	0.4	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.1	4.9	2.3	6.0	2.4	3.5	1.4	2.2	1.1	2.3	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	59.1	57.9	63.5	56.4	52.7	68.9	23.4	24.5	49.2	16.3	17.4
LnGrp LOS	E	E	E	E	E	D	E	C	C	D	B	B
Approach Vol, veh/h		620			560			337			526	
Approach Delay, s/veh		59.2			57.6			36.7			21.1	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	81.2	15.0	28.5	30.0	66.5	15.5	27.9
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	9.7	10.3	4.8	15.0	4.5	7.8	7.1	17.4
Green Ext Time (p_c), s	0.1	6.8	0.1	3.5	0.1	2.4	0.2	4.1

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	222	263	260	420	195
Future Volume (veh/h)	77	222	263	260	420	195
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	292	346	342	553	257
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	2	2	2	2
Cap, veh/h	371	330	356	2393	1515	676
Arrive On Green	0.21	0.21	0.20	0.67	0.43	0.43
Sat Flow, veh/h	1795	1598	1781	3647	3647	1585
Grp Volume(v), veh/h	101	292	346	342	553	257
Grp Sat Flow(s),veh/h/ln	1795	1598	1781	1777	1777	1585
Q Serve(g_s), s	4.0	15.1	16.4	3.0	9.0	9.4
Cycle Q Clear(g_c), s	4.0	15.1	16.4	3.0	9.0	9.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	371	330	356	2393	1515	676
V/C Ratio(X)	0.27	0.88	0.97	0.14	0.36	0.38
Avail Cap(c_a), veh/h	530	472	356	2393	1515	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.96	0.96
Uniform Delay (d), s/veh	28.3	32.7	33.8	5.0	16.6	16.7
Incr Delay (d2), s/veh	0.1	10.4	39.7	0.1	0.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.6	10.8	1.0	3.6	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.5	43.2	73.5	5.1	17.2	18.3
LnGrp LOS	C	D	E	A	B	B
Approach Vol, veh/h	393			688	810	
Approach Delay, s/veh	39.4			39.5	17.5	
Approach LOS	D			D	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.0	41.5			62.5	22.5
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	17.0	28.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	18.4	11.4			5.0	17.1
Green Ext Time (p_c), s	0.0	5.5			3.1	0.5

Intersection Summary		
HCM 6th Ctrl Delay	30.1	
HCM 6th LOS	C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	306	194	35	363	180	70	335	20	70	536	70
Future Volume (veh/h)	40	306	194	35	363	180	70	335	20	70	536	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	46	352	223	40	417	207	80	385	23	80	616	80
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	91	412	350	87	411	348	102	1935	843	103	1951	849
Arrive On Green	0.05	0.22	0.22	0.05	0.22	0.22	0.06	0.55	0.55	0.06	0.55	0.55
Sat Flow, veh/h	1781	1870	1585	1795	1885	1595	1767	3526	1536	1781	3554	1547
Grp Volume(v), veh/h	46	352	223	40	417	207	80	385	23	80	616	80
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1595	1767	1763	1536	1781	1777	1547
Q Serve(g_s), s	3.8	27.1	19.1	3.3	32.7	17.5	6.7	8.3	1.0	6.6	14.2	3.7
Cycle Q Clear(g_c), s	3.8	27.1	19.1	3.3	32.7	17.5	6.7	8.3	1.0	6.6	14.2	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	412	350	87	411	348	102	1935	843	103	1951	849
V/C Ratio(X)	0.50	0.85	0.64	0.46	1.01	0.60	0.78	0.20	0.03	0.78	0.32	0.09
Avail Cap(c_a), veh/h	392	495	420	311	411	348	365	1935	843	309	1951	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	56.1	53.0	69.4	58.7	52.7	69.7	17.1	15.5	69.7	18.5	16.1
Incr Delay (d2), s/veh	1.6	13.0	3.3	1.4	48.1	3.4	4.7	0.2	0.1	4.6	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	14.3	8.0	1.5	21.1	7.4	3.2	3.5	0.4	3.2	6.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	69.2	56.3	70.8	106.8	56.1	74.4	17.4	15.5	74.3	18.9	16.3
LnGrp LOS	E	E	E	E	F	E	E	B	B	E	B	B
Approach Vol, veh/h		621			664			488			776	
Approach Delay, s/veh		64.7			88.8			26.6			24.3	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	87.6	11.7	38.0	12.7	87.6	11.3	38.4
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	8.7	34.7	33.0	32.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	10.7	16.2	5.8	34.7	8.6	10.3	5.3	29.1
Green Ext Time (p_c), s	0.1	6.2	0.0	0.0	0.1	4.2	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	51.4
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	269	153	44	407	89	127	321	61	126	690	40
Future Volume (veh/h)	15	269	153	44	407	89	127	321	61	126	690	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	17	302	172	49	457	100	143	361	69	142	775	45
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	1	1	1
Cap, veh/h	62	437	370	117	504	427	169	1310	248	171	1527	89
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.10	0.44	0.44	0.10	0.44	0.44
Sat Flow, veh/h	1739	1826	1545	1781	1870	1585	1767	2947	557	1795	3435	199
Grp Volume(v), veh/h	17	302	172	49	457	100	143	214	216	142	404	416
Grp Sat Flow(s),veh/h/ln	1739	1826	1545	1781	1870	1585	1767	1763	1741	1795	1791	1844
Q Serve(g_s), s	1.2	18.8	11.9	3.3	29.5	6.2	10.0	9.6	9.8	9.7	20.2	20.2
Cycle Q Clear(g_c), s	1.2	18.8	11.9	3.3	29.5	6.2	10.0	9.6	9.8	9.7	20.2	20.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.11
Lane Grp Cap(c), veh/h	62	437	370	117	504	427	169	784	774	171	796	819
V/C Ratio(X)	0.27	0.69	0.46	0.42	0.91	0.23	0.85	0.27	0.28	0.83	0.51	0.51
Avail Cap(c_a), veh/h	153	574	486	157	588	498	226	784	774	230	796	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	58.7	43.3	40.7	56.1	44.2	35.6	55.6	21.9	22.0	55.5	24.9	24.9
Incr Delay (d2), s/veh	0.9	1.7	0.6	0.9	16.5	0.3	15.6	0.9	0.9	12.2	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	8.7	4.6	1.5	15.9	2.4	5.2	4.2	4.2	5.0	9.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	45.0	41.3	57.0	60.7	35.9	71.2	22.8	22.9	67.8	27.1	27.0
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	C	C
Approach Vol, veh/h		491			606			573			962	
Approach Delay, s/veh		44.2			56.3			34.9			33.0	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	61.3	8.5	39.4	15.9	61.3	12.2	35.6
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	16.0	39.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	11.8	22.2	3.2	31.5	11.7	11.8	5.3	20.8
Green Ext Time (p_c), s	0.1	4.9	0.0	2.1	0.1	3.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	959	491	0	1460	650	0	0	0	66	0	729
Future Volume (veh/h)	0	959	491	0	1460	650	0	0	0	66	0	729
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1885	0	1885
Adj Flow Rate, veh/h	0	1020	522	0	1916	0				70	0	776
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				1	0	1
Cap, veh/h	0	3674	905	0	4272					930	0	751
Arrive On Green	0.00	0.57	0.57	0.00	0.76	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	6696	1585	0	7481	1585				3483	0	2812
Grp Volume(v), veh/h	0	1020	522	0	1916	0				70	0	776
Grp Sat Flow(s),veh/h/ln	0	1609	1585	0	1870	1585				1742	0	1406
Q Serve(g_s), s	0.0	10.5	27.4	0.0	12.1	0.0				2.0	0.0	34.7
Cycle Q Clear(g_c), s	0.0	10.5	27.4	0.0	12.1	0.0				2.0	0.0	34.7
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3674	905	0	4272					930	0	751
V/C Ratio(X)	0.00	0.28	0.58	0.00	0.45					0.08	0.00	1.03
Avail Cap(c_a), veh/h	0	4019	990	0	4673					930	0	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.2	17.8	0.0	8.2	0.0				35.6	0.0	47.7
Incr Delay (d2), s/veh	0.0	0.2	2.7	0.0	0.3	0.0				0.1	0.0	41.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.9	10.5	0.0	4.0	0.0				0.9	0.0	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.4	20.5	0.0	8.5	0.0				35.7	0.0	89.6
LnGrp LOS	A	B	C	A	A					D	A	F
Approach Vol, veh/h		1542			1916						846	
Approach Delay, s/veh		16.5			8.5						85.1	
Approach LOS		B			A						F	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	81.0	42.0	81.0
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	81.2	34.7	81.2
Max Q Clear Time (g_c+I1), s	29.4	36.7	14.1
Green Ext Time (p_c), s	38.8	0.0	60.1

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	812	213	0	1656	79	454	0	504	0	0	0
Future Volume (veh/h)	0	812	213	0	1656	79	454	0	504	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1885	1885	1841	0	1841			
Adj Flow Rate, veh/h	0	902	0	0	1840	88	504	0	560			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	2	2	0	1	1	4	0	4			
Cap, veh/h	0	2985		0	4464	934	1536	0	853			
Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.58	0.31	0.00	0.31			
Sat Flow, veh/h	0	5274	1585	0	7993	1598	4944	0	2745			
Grp Volume(v), veh/h	0	902	0	0	1840	88	504	0	560			
Grp Sat Flow(s),veh/h/ln	0	1702	1585	0	1527	1598	1648	0	1373			
Q Serve(g_s), s	0.0	11.6	0.0	0.0	17.1	3.1	10.2	0.0	23.0			
Cycle Q Clear(g_c), s	0.0	11.6	0.0	0.0	17.1	3.1	10.2	0.0	23.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2985		0	4464	934	1536	0	853			
V/C Ratio(X)	0.00	0.30		0.00	0.41	0.09	0.33	0.00	0.66			
Avail Cap(c_a), veh/h	0	2985		0	4464	934	1536	0	853			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.98	0.00	0.00	0.74	0.74	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	13.6	0.0	0.0	14.8	11.9	34.4	0.0	38.8			
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.2	0.1	0.6	0.0	3.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.0	0.0	5.9	1.2	4.2	0.0	8.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.9	0.0	0.0	15.0	12.0	35.0	0.0	42.7			
LnGrp LOS	A	B		A	B	B	C	A	D			
Approach Vol, veh/h		902			1928			1064				
Approach Delay, s/veh		13.9			14.9			39.0				
Approach LOS		B			B			D				

Timer - Assigned Phs	2				6		8					
Phs Duration (G+Y+Rc), s	82.8				82.8		47.2					
Change Period (Y+Rc), s	6.8				6.8		6.8					
Max Green Setting (Gmax), s	76.0				76.0		40.4					
Max Q Clear Time (g_c+I1), s	13.6				19.1		25.0					
Green Ext Time (p_c), s	25.8				51.4		8.3					

Intersection Summary		
HCM 6th Ctrl Delay	21.2	
HCM 6th LOS	C	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	271	832	214	148	1021	160	232	263	120	170	308	482
Future Volume (veh/h)	271	832	214	148	1021	160	232	263	120	170	308	482
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	291	895	230	159	1098	172	249	283	129	183	331	518
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	340	2190	680	290	2129	661	312	889	373	314	1305	703
Arrive On Green	0.10	0.43	0.43	0.08	0.42	0.42	0.09	0.25	0.25	0.09	0.25	0.25
Sat Flow, veh/h	3428	5066	1572	3456	5106	1584	3456	3505	1470	3483	5147	2773
Grp Volume(v), veh/h	291	895	230	159	1098	172	249	274	138	183	331	518
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1584	1728	1702	1571	1742	1716	1387
Q Serve(g_s), s	13.0	18.9	15.1	6.8	24.8	11.0	10.9	10.1	11.1	7.8	8.0	26.6
Cycle Q Clear(g_c), s	13.0	18.9	15.1	6.8	24.8	11.0	10.9	10.1	11.1	7.8	8.0	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	340	2190	680	290	2129	661	312	863	398	314	1305	703
V/C Ratio(X)	0.86	0.41	0.34	0.55	0.52	0.26	0.80	0.32	0.35	0.58	0.25	0.74
Avail Cap(c_a), veh/h	553	2190	680	557	2129	661	669	863	398	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.7	30.3	29.3	68.2	33.6	29.5	69.1	47.0	47.3	67.7	46.2	53.1
Incr Delay (d2), s/veh	3.5	0.5	1.2	0.6	0.9	1.0	1.8	1.0	2.4	0.6	0.5	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	7.9	6.0	3.1	10.5	4.5	4.9	4.5	4.7	3.5	3.5	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	30.9	30.5	68.8	34.5	30.5	70.9	47.9	49.7	68.3	46.6	59.9
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	E
Approach Vol, veh/h		1416			1429			661			1032	
Approach Delay, s/veh		39.3			37.8			57.0			57.1	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	70.6	19.0	45.0	18.0	73.0	19.0	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	15.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	15.0	26.8	9.8	13.1	8.8	20.9	12.9	28.6
Green Ext Time (p_c), s	0.4	5.8	0.3	1.7	0.2	6.9	0.4	3.7

Intersection Summary	
HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	245	8	3	454	25	3
Future Vol, veh/h	245	8	3	454	25	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	288	9	4	534	29	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	297	0	835	293
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	-	-	4.14	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1253	-	340	751
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	587	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1253	-	338	751
Mov Cap-2 Maneuver	-	-	-	-	338	-
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	359	-	-	1253	-
HCM Lane V/C Ratio	0.092	-	-	0.003	-
HCM Control Delay (s)	16	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	104	36	60	175	3
Future Vol, veh/h	9	104	36	60	175	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	113	39	65	190	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	335	192	193	0	-	0
Stage 1	192	-	-	-	-	-
Stage 2	143	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	664	855	1392	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	645	855	1392	-	-	-
Mov Cap-2 Maneuver	645	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	889	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	2.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1392	-	833	-	-
HCM Lane V/C Ratio	0.028	-	0.147	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	356	115	31	382	3	57	11	27	2	14	9
Future Vol, veh/h	8	356	115	31	382	3	57	11	27	2	14	9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	1	1	1	0	0	0	0	0	0
Mvmt Flow	8	363	117	32	390	3	58	11	28	2	14	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.5	14.2	10.2	9.3
HCM LOS	C	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	2%	7%	8%
Vol Thru, %	12%	74%	92%	56%
Vol Right, %	28%	24%	1%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	479	416	25
LT Vol	57	8	31	2
Through Vol	11	356	382	14
RT Vol	27	115	3	9
Lane Flow Rate	97	489	424	26
Geometry Grp	1	1	1	1
Degree of Util (X)	0.162	0.631	0.568	0.043
Departure Headway (Hd)	6.023	4.649	4.821	6.068
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	599	767	739	593
Service Time	4.024	2.734	2.911	4.073
HCM Lane V/C Ratio	0.162	0.638	0.574	0.044
HCM Control Delay	10.2	15.5	14.2	9.3
HCM Lane LOS	B	C	B	A
HCM 95th-tile Q	0.6	4.5	3.6	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	299	63	36	285	370	145	92	34	185	125	18
Future Volume (veh/h)	20	299	63	36	285	370	145	92	34	185	125	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	21	311	66	38	297	385	151	96	35	193	130	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	55	765	341	75	424	359	174	912	773	216	805	118
Arrive On Green	0.03	0.22	0.22	0.04	0.23	0.23	0.10	0.49	0.49	0.12	0.51	0.51
Sat Flow, veh/h	1781	3554	1585	1781	1870	1585	1781	1870	1585	1753	1570	229
Grp Volume(v), veh/h	21	311	66	38	297	385	151	96	35	193	0	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1870	1585	1753	0	1799
Q Serve(g_s), s	1.7	11.3	5.1	3.1	21.9	34.0	12.5	4.2	1.7	16.3	0.0	6.6
Cycle Q Clear(g_c), s	1.7	11.3	5.1	3.1	21.9	34.0	12.5	4.2	1.7	16.3	0.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	55	765	341	75	424	359	174	912	773	216	0	923
V/C Ratio(X)	0.38	0.41	0.19	0.50	0.70	1.07	0.87	0.11	0.05	0.89	0.00	0.16
Avail Cap(c_a), veh/h	368	806	359	368	424	359	368	912	773	339	0	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.2	50.6	48.2	70.3	53.3	58.0	66.7	20.7	20.1	64.8	0.0	19.4
Incr Delay (d2), s/veh	1.6	0.6	0.5	1.9	6.1	67.8	5.0	0.2	0.1	11.8	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	2.1	1.5	11.1	20.4	6.0	1.9	0.7	8.0	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.8	51.2	48.7	72.2	59.4	125.8	71.7	21.0	20.2	76.6	0.0	19.8
LnGrp LOS	E	D	D	E	E	F	E	C	C	E	A	B
Approach Vol, veh/h		398			720			282			342	
Approach Delay, s/veh		52.0			95.6			48.0			51.8	
Approach LOS		D			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	82.7	8.7	40.0	22.5	78.9	10.4	38.3
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	14.0	34.3	31.0	34.0	29.0	36.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	14.5	8.6	3.7	36.0	18.3	6.2	5.1	13.3
Green Ext Time (p_c), s	0.2	0.8	0.0	0.0	0.2	0.6	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	69.3
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	0	0	3	0	0
Future Vol, veh/h	9	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	0	0	3	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3	2	0	0	3	0
Stage 1	2	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1025	1088	-	-	1632	-
Stage 1	1026	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1025	1088	-	-	1632	-
Mov Cap-2 Maneuver	1025	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1025	1632	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	0	3	11	0	9
Future Vol, veh/h	31	0	3	11	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	0	3	12	0	10

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	19	9	0	0	15	0
Stage 1	9	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1004	1079	-	-	1616	-
Stage 1	1019	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1004	1079	-	-	1616	-
Mov Cap-2 Maneuver	1004	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1004	1616	-
HCM Lane V/C Ratio	-	-	0.034	-	-
HCM Control Delay (s)	-	-	8.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	0	25	14	0	74
Future Vol, veh/h	40	0	25	14	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	0	27	15	0	80

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	43	0	112	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1579	-	890	1033
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1579	-	875	1033
Mov Cap-2 Maneuver	-	-	-	-	875	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	943	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1033	-	-	1579	-
HCM Lane V/C Ratio	0.078	-	-	0.017	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	55	19	21	9	2
Future Vol, veh/h	6	55	19	21	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	60	21	23	10	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	76	11	12	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	65	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	932	1076	1620	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	920	1076	1620	-	-	-
Mov Cap-2 Maneuver	920	-	-	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	963	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	3.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1620	-	1058	-	-
HCM Lane V/C Ratio	0.013	-	0.063	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	58	20	34	60	2
Future Vol, veh/h	6	58	20	34	60	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	63	22	37	65	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	147	66	67	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	850	1003	1547	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	837	1003	1547	-	-	-
Mov Cap-2 Maneuver	837	-	-	-	-	-
Stage 1	948	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1547	-	985	-	-
HCM Lane V/C Ratio	0.014	-	0.071	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	3.1

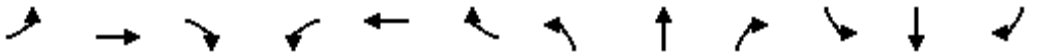
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	61	21	48	117	2
Future Vol, veh/h	6	61	21	48	117	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	66	23	52	127	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	226	128	129	0	-	0
Stage 1	128	-	-	-	-	-
Stage 2	98	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	767	927	1469	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	755	927	1469	-	-	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	2.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1469	-	908	-	-
HCM Lane V/C Ratio	0.016	-	0.08	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	37	110	5	62	29	121	374	12	19	266	11
Future Volume (veh/h)	9	37	110	5	62	29	121	374	12	19	266	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	41	122	6	69	32	134	416	13	21	296	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	188	159	21	167	142	207	2531	1129	58	3433	1066
Arrive On Green	0.02	0.10	0.10	0.01	0.09	0.09	0.12	1.00	1.00	0.03	0.67	0.67
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	41	122	6	69	32	134	416	13	21	296	12
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	2.7	10.1	0.5	4.7	2.5	4.9	0.0	0.0	1.5	2.7	0.3
Cycle Q Clear(g_c), s	0.7	2.7	10.1	0.5	4.7	2.5	4.9	0.0	0.0	1.5	2.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	188	159	21	167	142	207	2531	1129	58	3433	1066
V/C Ratio(X)	0.30	0.22	0.77	0.28	0.41	0.23	0.65	0.16	0.01	0.36	0.09	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	356	2531	1129	196	3433	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	55.8	59.2	66.1	58.1	57.1	58.2	0.0	0.0	64.0	7.9	7.5
Incr Delay (d2), s/veh	1.9	1.4	16.3	2.6	2.8	1.4	1.3	0.1	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.4	4.8	0.2	2.4	1.1	2.1	0.0	0.0	0.7	0.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	57.2	75.4	68.8	60.9	58.5	59.5	0.1	0.0	65.4	8.0	7.6
LnGrp LOS	E	E	E	E	E	E	E	A	A	E	A	A
Approach Vol, veh/h		173			107			563			329	
Approach Delay, s/veh		70.6			60.6			14.3			11.6	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	95.8	7.1	17.9	9.7	100.3	5.6	19.4
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	6.9	4.7	2.7	6.7	3.5	2.0	2.5	12.1
Green Ext Time (p_c), s	0.1	4.5	0.0	0.8	0.0	6.5	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	48	81	31	91	26	120	461	24	51	371	10
Future Volume (veh/h)	11	48	81	31	91	26	120	461	24	51	371	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	12	55	92	35	103	30	136	524	27	58	422	11
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	1	1	1
Cap, veh/h	39	166	141	78	137	40	160	3388	1052	94	3176	963
Arrive On Green	0.02	0.09	0.09	0.04	0.10	0.10	0.09	0.65	0.65	0.11	1.00	1.00
Sat Flow, veh/h	1810	1900	1610	1795	1403	409	1810	5187	1610	1795	5147	1561
Grp Volume(v), veh/h	12	55	92	35	0	133	136	524	27	58	422	11
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	0	1812	1810	1729	1610	1795	1716	1561
Q Serve(g_s), s	0.9	3.7	7.5	2.6	0.0	9.7	10.0	5.3	0.8	4.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	3.7	7.5	2.6	0.0	9.7	10.0	5.3	0.8	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	166	141	78	0	176	160	3388	1052	94	3176	963
V/C Ratio(X)	0.31	0.33	0.65	0.45	0.00	0.75	0.85	0.15	0.03	0.62	0.13	0.01
Avail Cap(c_a), veh/h	185	612	519	205	0	584	197	3388	1052	196	3176	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.97	0.97	0.97	0.99	0.99	0.99
Uniform Delay (d), s/veh	65.1	57.9	59.6	63.0	0.0	59.4	60.6	9.0	8.3	59.1	0.0	0.0
Incr Delay (d2), s/veh	1.7	1.4	6.1	1.5	0.0	13.6	20.2	0.1	0.0	2.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	3.3	1.2	0.0	5.1	5.4	1.8	0.3	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	59.3	65.7	64.5	0.0	72.9	80.8	9.1	8.3	61.5	0.1	0.0
LnGrp LOS	E	E	E	E	A	E	F	A	A	E	A	A
Approach Vol, veh/h		159			168			687			491	
Approach Delay, s/veh		63.6			71.2			23.3			7.3	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	89.0	9.1	19.6	12.4	93.9	10.4	18.3
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	12.0	2.0	2.9	11.7	6.2	7.3	4.6	9.5
Green Ext Time (p_c), s	0.0	6.6	0.0	1.5	0.0	8.2	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	361	113	36	338	155	243	657	92	144	464	31
Future Volume (veh/h)	36	361	113	36	338	155	243	657	92	144	464	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	38	384	120	38	360	165	259	699	98	153	494	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	152	568	253	152	597	266	309	2952	916	202	2774	850
Arrive On Green	0.04	0.16	0.16	0.04	0.17	0.17	0.09	0.57	0.57	0.06	0.54	0.54
Sat Flow, veh/h	3510	3610	1610	3510	3610	1607	3510	5187	1609	3483	5147	1576
Grp Volume(v), veh/h	38	384	120	38	360	165	259	699	98	153	494	33
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1607	1755	1729	1609	1742	1716	1576
Q Serve(g_s), s	1.5	14.5	9.8	1.5	13.4	13.8	10.5	9.7	4.1	6.3	7.1	1.4
Cycle Q Clear(g_c), s	1.5	14.5	9.8	1.5	13.4	13.8	10.5	9.7	4.1	6.3	7.1	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	568	253	152	597	266	309	2952	916	202	2774	850
V/C Ratio(X)	0.25	0.68	0.47	0.25	0.60	0.62	0.84	0.24	0.11	0.76	0.18	0.04
Avail Cap(c_a), veh/h	470	1090	486	441	1090	486	453	2952	916	449	2774	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	67.1	57.6	55.6	67.1	56.1	56.3	65.1	15.6	14.3	67.3	17.0	15.7
Incr Delay (d2), s/veh	0.3	3.3	3.2	0.2	0.8	2.0	5.9	0.2	0.2	2.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.8	4.2	0.7	6.0	5.7	4.9	3.7	1.5	2.8	2.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.4	60.9	58.9	67.3	56.9	58.2	71.0	15.8	14.6	69.4	17.2	15.8
LnGrp LOS	E	E	E	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		542			563			1056			680	
Approach Delay, s/veh		60.9			58.0			29.2			28.9	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	83.9	11.9	30.2	14.7	88.2	13.1	29.0
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	12.5	9.1	3.5	15.8	8.3	11.7	3.5	16.5
Green Ext Time (p_c), s	0.2	7.6	0.0	3.8	0.2	11.3	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	56	0	0	0	103	216	1	0	238	3
Future Vol, veh/h	4	0	56	0	0	0	103	216	1	0	238	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	5	0	65	0	0	0	120	251	1	0	277	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	771	771	279	803	772	252	280	0	0	252	0	0
Stage 1	279	279	-	492	492	-	-	-	-	-	-	-
Stage 2	492	492	-	311	280	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	320	333	765	302	330	787	1288	-	-	1319	-	-
Stage 1	732	683	-	558	548	-	-	-	-	-	-	-
Stage 2	562	551	-	699	679	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	297	765	253	294	787	1288	-	-	1319	-	-
Mov Cap-2 Maneuver	293	297	-	253	294	-	-	-	-	-	-	-
Stage 1	653	683	-	498	489	-	-	-	-	-	-	-
Stage 2	501	491	-	640	679	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	0	2.6	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1288	-	-	691	-	1319	-	-
HCM Lane V/C Ratio	0.093	-	-	0.101	-	-	-	-
HCM Control Delay (s)	8.1	0	-	10.8	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.3	-	0	-	-

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	86	30	6	96	105	46	205	6	105	190	2
Future Vol, veh/h	3	86	30	6	96	105	46	205	6	105	190	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	1	1	1	0	0	0	1	1	1	1	1	1
Mvmt Flow	3	98	34	7	109	119	52	233	7	119	216	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	11.9	13.2	14.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	3%	3%	35%
Vol Thru, %	80%	72%	46%	64%
Vol Right, %	2%	25%	51%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	119	207	297
LT Vol	46	3	6	105
Through Vol	205	86	96	190
RT Vol	6	30	105	2
Lane Flow Rate	292	135	235	338
Geometry Grp	1	1	1	1
Degree of Util (X)	0.453	0.224	0.366	0.521
Departure Headway (Hd)	5.583	5.972	5.6	5.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	642	596	637	648
Service Time	3.648	4.057	3.674	3.614
HCM Lane V/C Ratio	0.455	0.227	0.369	0.522
HCM Control Delay	13.2	10.8	11.9	14.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.4	0.9	1.7	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	453	81	36	379	85	104	152	54	76	142	13
Future Volume (veh/h)	20	453	81	36	379	85	104	152	54	76	142	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	22	487	87	39	408	91	112	163	58	82	153	14
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	83	785	350	116	450	381	149	910	772	144	905	767
Arrive On Green	0.05	0.22	0.22	0.06	0.24	0.24	0.08	0.48	0.48	0.08	0.48	0.48
Sat Flow, veh/h	1795	3582	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	22	487	87	39	408	91	112	163	58	82	153	14
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	1.5	16.0	5.8	2.7	27.1	5.9	7.9	6.4	2.5	5.7	6.0	0.6
Cycle Q Clear(g_c), s	1.5	16.0	5.8	2.7	27.1	5.9	7.9	6.4	2.5	5.7	6.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	785	350	116	450	381	149	910	772	144	905	767
V/C Ratio(X)	0.26	0.62	0.25	0.34	0.91	0.24	0.75	0.18	0.08	0.57	0.17	0.02
Avail Cap(c_a), veh/h	290	937	418	292	497	421	290	910	772	290	905	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	45.9	41.9	58.2	48.2	40.2	58.3	19.0	18.0	57.6	19.1	17.7
Incr Delay (d2), s/veh	0.5	1.1	0.4	0.6	20.3	0.5	2.8	0.4	0.2	1.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.0	2.3	1.2	14.9	2.3	3.6	2.8	0.9	2.7	2.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	46.9	42.4	58.8	68.6	40.7	61.1	19.5	18.2	58.9	19.5	17.8
LnGrp LOS	E	D	D	E	E	D	E	B	B	E	B	B
Approach Vol, veh/h		596			538			333			249	
Approach Delay, s/veh		46.8			63.1			33.3			32.4	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	68.4	10.0	36.8	14.4	68.8	12.3	34.5
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	9.9	8.0	3.5	29.1	7.7	8.4	4.7	18.0
Green Ext Time (p_c), s	0.1	1.2	0.0	1.6	0.1	1.0	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBU	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	0	0	188	0	30	0	317
Future Vol, veh/h	0	0	188	0	30	0	317
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	2
Mvmt Flow	0	0	251	0	40	0	423
Number of Lanes	0	0	1	0	1	0	1

Approach	WB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	NB	
Conflicting Lanes Left	2	0
Conflicting Approach Right		WB
Conflicting Lanes Right	0	1
HCM Control Delay	11	11.9
HCM LOS	B	B

Lane	NBLn1	NBLn2	WBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	30	317	188
LT Vol	0	0	188
Through Vol	30	0	0
RT Vol	0	317	0
Lane Flow Rate	40	423	251
Geometry Grp	7	7	2
Degree of Util (X)	0.057	0.528	0.357
Departure Headway (Hd)	5.17	4.5	5.129
Convergence, Y/N	Yes	Yes	Yes
Cap	692	799	699
Service Time	2.906	2.235	3.178
HCM Lane V/C Ratio	0.058	0.529	0.359
HCM Control Delay	8.2	12.2	11
HCM Lane LOS	A	B	B
HCM 95th-tile Q	0.2	3.1	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	343	103	77	304	52	140	225	70	37	132	80
Future Volume (veh/h)	122	343	103	77	304	52	140	225	70	37	132	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	361	108	81	320	55	147	237	74	39	139	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	495	220	240	490	219	145	1644	733	612	1985	885
Arrive On Green	0.07	0.14	0.14	0.07	0.14	0.14	0.08	0.46	0.46	0.17	0.55	0.55
Sat Flow, veh/h	3483	3582	1591	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	128	361	108	81	320	55	147	237	74	39	139	84
Grp Sat Flow(s),veh/h/ln	1742	1791	1591	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	5.0	13.5	8.8	3.1	11.8	4.3	11.2	5.4	3.7	1.3	2.5	3.5
Cycle Q Clear(g_c), s	5.0	13.5	8.8	3.1	11.8	4.3	11.2	5.4	3.7	1.3	2.5	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	495	220	240	490	219	145	1644	733	612	1985	885
V/C Ratio(X)	0.52	0.73	0.49	0.34	0.65	0.25	1.02	0.14	0.10	0.06	0.07	0.09
Avail Cap(c_a), veh/h	607	870	386	612	877	391	145	1644	733	612	1985	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	57.8	55.8	62.2	57.4	54.1	64.4	22.2	21.8	48.3	14.8	15.0
Incr Delay (d2), s/veh	0.6	3.0	2.5	0.3	2.2	0.9	78.2	0.2	0.3	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.2	3.6	1.4	5.4	1.7	8.2	2.3	1.4	0.6	1.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	60.8	58.2	62.5	59.5	55.0	142.6	22.4	22.0	48.5	14.8	15.2
LnGrp LOS	E	E	E	E	E	E	F	C	C	D	B	B
Approach Vol, veh/h		597			456			458			262	
Approach Delay, s/veh		60.9			59.5			60.9			20.0	
Approach LOS		E			E			E			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	82.7	15.5	25.0	30.0	69.5	15.2	25.4
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	11.2	47.5	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	13.2	5.5	7.0	13.8	3.3	7.4	5.1	15.5
Green Ext Time (p_c), s	0.0	3.6	0.2	2.7	0.0	3.3	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	87	156	457	322	68
Future Volume (veh/h)	81	87	156	457	322	68
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1900	1900
Adj Flow Rate, veh/h	100	107	193	564	398	84
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	1	1	1	1	0	0
Cap, veh/h	168	149	211	2817	2245	1001
Arrive On Green	0.09	0.09	0.12	0.79	0.62	0.62
Sat Flow, veh/h	1795	1598	1795	3676	3705	1610
Grp Volume(v), veh/h	100	107	193	564	398	84
Grp Sat Flow(s),veh/h/ln	1795	1598	1795	1791	1805	1610
Q Serve(g_s), s	4.5	5.5	9.0	3.4	4.0	1.8
Cycle Q Clear(g_c), s	4.5	5.5	9.0	3.4	4.0	1.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	168	149	211	2817	2245	1001
V/C Ratio(X)	0.60	0.72	0.91	0.20	0.18	0.08
Avail Cap(c_a), veh/h	530	472	211	2817	2245	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.99	0.99
Uniform Delay (d), s/veh	37.0	37.4	37.1	2.3	6.8	6.4
Incr Delay (d2), s/veh	1.3	2.4	38.2	0.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.2	6.1	0.8	1.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	39.8	75.3	2.5	7.0	6.6
LnGrp LOS	D	D	E	A	A	A
Approach Vol, veh/h	207			757	482	
Approach Delay, s/veh	39.1			21.0	6.9	
Approach LOS	D			C	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.0	58.2			72.2	12.8
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	10.0	35.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	11.0	6.0			5.4	7.5
Green Ext Time (p_c), s	0.0	3.6			5.5	0.3

Intersection Summary			
HCM 6th Ctrl Delay		18.9	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	415	249	22	385	74	124	536	46	43	334	46
Future Volume (veh/h)	53	415	249	22	385	74	124	536	46	43	334	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	56	441	265	23	410	79	132	570	49	46	355	49
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	98	473	401	66	437	370	155	1931	841	93	1819	792
Arrive On Green	0.05	0.25	0.25	0.04	0.23	0.23	0.09	0.54	0.54	0.05	0.50	0.50
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1560	1810	3610	1571
Grp Volume(v), veh/h	56	441	265	23	410	79	132	570	49	46	355	49
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1560	1810	1805	1571
Q Serve(g_s), s	4.5	34.1	22.2	1.9	32.0	6.0	10.9	13.1	2.2	3.7	8.1	2.4
Cycle Q Clear(g_c), s	4.5	34.1	22.2	1.9	32.0	6.0	10.9	13.1	2.2	3.7	8.1	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	473	401	66	437	370	155	1931	841	93	1819	792
V/C Ratio(X)	0.57	0.93	0.66	0.35	0.94	0.21	0.85	0.30	0.06	0.50	0.20	0.06
Avail Cap(c_a), veh/h	374	490	415	323	437	370	371	1931	841	314	1819	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.2	55.1	50.7	70.5	56.6	46.6	67.6	19.0	16.5	69.3	20.5	19.1
Incr Delay (d2), s/veh	1.9	25.0	4.4	1.1	28.5	0.4	4.5	0.4	0.1	1.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	19.2	9.3	0.9	18.4	2.4	5.1	5.4	0.8	1.8	3.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	80.2	55.1	71.6	85.1	47.0	72.1	19.3	16.6	70.8	20.7	19.2
LnGrp LOS	E	F	E	E	F	D	E	B	B	E	C	B
Approach Vol, veh/h		762			512			751			450	
Approach Delay, s/veh		70.8			78.6			28.4			25.7	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	80.9	12.1	40.0	11.7	86.2	9.5	42.6
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	13.0	34.7	31.0	34.7	26.0	39.7	27.0	38.7
Max Q Clear Time (g_c+I1), s	12.9	10.1	6.5	34.0	5.7	15.1	3.9	36.1
Green Ext Time (p_c), s	0.1	3.8	0.1	0.2	0.0	5.7	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	51.3
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	342	175	36	302	77	146	687	67	77	531	17
Future Volume (veh/h)	22	342	175	36	302	77	146	687	67	77	531	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	372	190	39	328	84	159	747	73	84	577	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	81	418	354	107	445	377	186	1567	153	164	1646	51
Arrive On Green	0.05	0.22	0.22	0.06	0.24	0.24	0.10	0.47	0.47	0.09	0.46	0.46
Sat Flow, veh/h	1795	1885	1595	1795	1885	1598	1810	3315	324	1810	3571	111
Grp Volume(v), veh/h	24	372	190	39	328	84	159	407	413	84	291	304
Grp Sat Flow(s),veh/h/ln	1795	1885	1595	1795	1885	1598	1810	1805	1834	1810	1805	1877
Q Serve(g_s), s	1.6	23.9	13.1	2.6	20.1	5.3	10.8	19.2	19.2	5.5	13.0	13.0
Cycle Q Clear(g_c), s	1.6	23.9	13.1	2.6	20.1	5.3	10.8	19.2	19.2	5.5	13.0	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.06
Lane Grp Cap(c), veh/h	81	418	354	107	445	377	186	853	867	164	832	865
V/C Ratio(X)	0.30	0.89	0.54	0.37	0.74	0.22	0.86	0.48	0.48	0.51	0.35	0.35
Avail Cap(c_a), veh/h	158	593	502	158	593	502	246	853	867	232	832	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	57.7	47.1	43.0	56.5	44.2	38.5	55.2	22.4	22.4	54.2	21.7	21.7
Incr Delay (d2), s/veh	0.7	10.4	0.9	0.8	3.5	0.3	16.1	1.9	1.9	0.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.1	5.1	1.2	9.6	2.1	5.6	8.2	8.3	2.5	5.5	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	57.6	43.8	57.3	47.7	38.8	71.3	24.3	24.3	55.1	22.8	22.7
LnGrp LOS	E	E	D	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		586			451			979			679	
Approach Delay, s/veh		53.1			46.8			32.0			26.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	63.3	9.7	35.2	15.4	64.8	11.4	33.4
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	12.8	38.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	12.8	15.0	3.6	22.1	7.5	21.2	4.6	25.9
Green Ext Time (p_c), s	0.1	3.2	0.0	2.0	0.0	5.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1660	529	0	1455	590	0	0	0	66	0	342
Future Volume (veh/h)	0	1660	529	0	1455	590	0	0	0	66	0	342
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885				1885	0	1885
Adj Flow Rate, veh/h	0	1677	534	0	1744	0				67	0	345
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	1	1	0	1	1				1	0	1
Cap, veh/h	0	3260	803	0	3791					570	0	460
Arrive On Green	0.00	0.50	0.50	0.00	0.50	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	6749	1598	0	7541	1598				3483	0	2812
Grp Volume(v), veh/h	0	1677	534	0	1744	0				67	0	345
Grp Sat Flow(s),veh/h/ln	0	1621	1598	0	1885	1598				1742	0	1406
Q Serve(g_s), s	0.0	22.9	33.0	0.0	19.7	0.0				2.2	0.0	15.4
Cycle Q Clear(g_c), s	0.0	22.9	33.0	0.0	19.7	0.0				2.2	0.0	15.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3260	803	0	3791					570	0	460
V/C Ratio(X)	0.00	0.51	0.66	0.00	0.46					0.12	0.00	0.75
Avail Cap(c_a), veh/h	0	3341	823	0	3885					1317	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.94	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.0	24.5	0.0	21.2	0.0				47.1	0.0	52.6
Incr Delay (d2), s/veh	0.0	0.6	4.3	0.0	0.4	0.0				0.2	0.0	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.4	12.7	0.0	8.4	0.0				1.0	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.6	28.8	0.0	21.6	0.0				47.3	0.0	58.6
LnGrp LOS	A	C	C	A	C					D	A	E
Approach Vol, veh/h		2211			1744						412	
Approach Delay, s/veh		24.1			21.6						56.8	
Approach LOS		C			C						E	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	73.2	28.9	73.2
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	68.0	49.9	68.0
Max Q Clear Time (g_c+I1), s	35.0	17.4	21.7
Green Ext Time (p_c), s	31.4	4.2	40.0

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1366	360	0	1548	184	497	0	761	0	0	0
Future Volume (veh/h)	0	1366	360	0	1548	184	497	0	761	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885	1885	0	1885			
Adj Flow Rate, veh/h	0	1408	0	0	1596	190	512	0	785			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	1	0	1	1	1	0	1			
Cap, veh/h	0	2930		0	4346	909	1651	0	917			
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57	0.33	0.00	0.33			
Sat Flow, veh/h	0	5316	1598	0	7993	1598	5063	0	2812			
Grp Volume(v), veh/h	0	1408	0	0	1596	190	512	0	785			
Grp Sat Flow(s),veh/h/ln	0	1716	1598	0	1527	1598	1688	0	1406			
Q Serve(g_s), s	0.0	21.1	0.0	0.0	14.8	7.6	9.9	0.0	33.9			
Cycle Q Clear(g_c), s	0.0	21.1	0.0	0.0	14.8	7.6	9.9	0.0	33.9			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2930		0	4346	909	1651	0	917			
V/C Ratio(X)	0.00	0.48		0.00	0.37	0.21	0.31	0.00	0.86			
Avail Cap(c_a), veh/h	0	2930		0	4346	909	1651	0	917			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.95	0.00	0.00	0.62	0.62	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	16.6	0.0	0.0	15.2	13.7	32.8	0.0	40.9			
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.1	0.3	0.5	0.0	10.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	7.9	0.0	0.0	4.9	2.7	4.1	0.0	12.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.1	0.0	0.0	15.4	14.0	33.3	0.0	51.0			
LnGrp LOS	A	B		A	B	B	C	A	D			
Approach Vol, veh/h		1408			1786			1297				
Approach Delay, s/veh		17.1			15.3			44.0				
Approach LOS		B			B			D				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		80.8				80.8		49.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		74.0				74.0		42.4				
Max Q Clear Time (g_c+I1), s		23.1				16.8		35.9				
Green Ext Time (p_c), s		36.7				47.6		4.8				

Intersection Summary		
HCM 6th Ctrl Delay		24.2
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	456	1368	302	316	1062	142	350	430	276	277	279	320
Future Volume (veh/h)	456	1368	302	316	1062	142	350	430	276	277	279	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	475	1425	315	329	1106	148	365	448	288	289	291	333
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	519	1952	606	378	1744	541	416	950	434	339	1305	703
Arrive On Green	0.15	0.38	0.38	0.11	0.34	0.34	0.12	0.27	0.27	0.10	0.25	0.25
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1579	3483	5147	2773
Grp Volume(v), veh/h	475	1425	315	329	1106	148	365	448	288	289	291	333
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1579	1742	1716	1387
Q Serve(g_s), s	20.8	36.8	23.6	14.4	28.1	10.5	15.9	16.7	25.1	12.7	6.9	15.8
Cycle Q Clear(g_c), s	20.8	36.8	23.6	14.4	28.1	10.5	15.9	16.7	25.1	12.7	6.9	15.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	1952	606	378	1744	541	416	950	434	339	1305	703
V/C Ratio(X)	0.92	0.73	0.52	0.87	0.63	0.27	0.88	0.47	0.66	0.85	0.22	0.47
Avail Cap(c_a), veh/h	562	1952	606	562	1744	541	679	950	434	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	41.3	37.2	68.0	43.1	37.3	67.2	46.8	49.9	68.8	45.8	49.1
Incr Delay (d2), s/veh	14.9	1.9	2.4	6.8	1.8	1.2	4.2	1.7	7.8	2.4	0.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	15.6	9.5	6.7	12.0	4.2	7.2	7.3	10.7	5.7	3.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	43.2	39.6	74.8	44.9	38.6	71.4	48.5	57.6	71.2	46.2	51.4
LnGrp LOS	E	D	D	E	D	D	E	D	E	E	D	D
Approach Vol, veh/h		2215			1583			1101			913	
Approach Delay, s/veh		50.6			50.5			58.5			56.0	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.1	58.5	20.1	48.3	21.8	64.8	23.4	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I2), s	22.8	30.1	14.7	27.1	16.4	38.8	17.9	17.8
Green Ext Time (p_c), s	0.3	4.3	0.4	2.3	0.4	0.1	0.5	3.4

Intersection Summary	
HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	170	28	3	191	17	2
Future Vol, veh/h	170	28	3	191	17	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	181	30	3	203	18	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	211	0	405	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	209	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1372	-	606	850
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1372	-	605	850
Mov Cap-2 Maneuver	-	-	-	-	605	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	829	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	624	-	-	1372	-
HCM Lane V/C Ratio	0.032	-	-	0.002	-
HCM Control Delay (s)	11	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	70	118	198	118	10
Future Vol, veh/h	6	70	118	198	118	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	76	128	215	128	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	605	134	139	0	-	0
Stage 1	134	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	464	920	1457	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	418	920	1457	-	-	-
Mov Cap-2 Maneuver	418	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	2.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1457	-	840	-	-
HCM Lane V/C Ratio	0.088	-	0.098	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	363	76	29	331	6	90	11	31	4	13	9
Future Vol, veh/h	9	363	76	29	331	6	90	11	31	4	13	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	386	81	31	352	6	96	12	33	4	14	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.4	14	10.9	9.5
HCM LOS	C	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	2%	8%	15%
Vol Thru, %	8%	81%	90%	50%
Vol Right, %	23%	17%	2%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	448	366	26
LT Vol	90	9	29	4
Through Vol	11	363	331	13
RT Vol	31	76	6	9
Lane Flow Rate	140	477	389	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.235	0.648	0.546	0.047
Departure Headway (Hd)	6.026	4.891	5.046	6.154
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	743	716	580
Service Time	4.071	2.891	3.077	4.213
HCM Lane V/C Ratio	0.235	0.642	0.543	0.048
HCM Control Delay	10.9	16.4	14	9.5
HCM Lane LOS	B	C	B	A
HCM 95th-tile Q	0.9	4.8	3.3	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	288	83	47	261	128	123	119	73	110	112	14
Future Volume (veh/h)	23	288	83	47	261	128	123	119	73	110	112	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	24	303	87	49	275	135	129	125	77	116	118	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	61	566	252	83	322	273	152	1107	938	139	950	121
Arrive On Green	0.03	0.16	0.16	0.05	0.17	0.17	0.08	0.59	0.59	0.08	0.58	0.58
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1639	208
Grp Volume(v), veh/h	24	303	87	49	275	135	129	125	77	116	0	133
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1847
Q Serve(g_s), s	2.0	11.7	7.3	4.0	21.2	11.5	10.6	4.4	3.1	9.6	0.0	4.9
Cycle Q Clear(g_c), s	2.0	11.7	7.3	4.0	21.2	11.5	10.6	4.4	3.1	9.6	0.0	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	61	566	252	83	322	273	152	1107	938	139	0	1071
V/C Ratio(X)	0.40	0.54	0.34	0.59	0.85	0.50	0.85	0.11	0.08	0.84	0.00	0.12
Avail Cap(c_a), veh/h	371	812	362	371	427	362	371	1107	938	371	0	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.0	58.1	56.2	70.1	60.4	56.3	67.7	13.7	13.4	68.3	0.0	14.3
Incr Delay (d2), s/veh	1.6	1.5	1.5	2.4	15.3	2.6	5.0	0.2	0.2	5.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.4	3.0	1.9	11.3	4.8	5.0	1.9	1.2	4.5	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	59.6	57.7	72.6	75.7	58.9	72.7	13.9	13.6	73.3	0.0	14.5
LnGrp LOS	E	E	E	E	E	E	E	B	B	E	A	B
Approach Vol, veh/h		414			459			331			249	
Approach Delay, s/veh		59.9			70.4			36.7			41.9	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	92.6	9.1	31.6	15.6	93.8	11.0	29.7
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	12.6	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	12.6	6.9	4.0	23.2	11.6	6.4	6.0	13.7
Green Ext Time (p_c), s	0.1	0.6	0.0	2.4	0.1	0.8	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	0	10	0	0
Future Vol, veh/h	6	0	0	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	0	0	11	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	7	6	0	0	11	0
Stage 1	6	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1019	1083	-	-	1621	-
Stage 1	1022	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1019	1083	-	-	1621	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1019	1621	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	-	-	8.6	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	0	10	35	0	6
Future Vol, veh/h	21	0	10	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	0	11	38	0	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	37	30	0	0	49	0
Stage 1	30	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	981	1050	-	-	1571	-
Stage 1	998	-	-	-	-	-
Stage 2	1021	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	981	1050	-	-	1571	-
Mov Cap-2 Maneuver	981	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	1021	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	981	1571	-
HCM Lane V/C Ratio	-	-	0.023	-	-
HCM Control Delay (s)	-	-	8.8	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	27	0	84	45	0	50
Future Vol, veh/h	27	0	84	45	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	29	0	91	49	0	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	260	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1597	-	733	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1597	-	690	1052
Mov Cap-2 Maneuver	-	-	-	-	690	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1052	-	-	1597	-
HCM Lane V/C Ratio	0.052	-	-	0.057	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	37	63	14	24	7
Future Vol, veh/h	4	37	63	14	24	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	40	68	15	26	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	181	30	34	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	151	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	813	1050	1591	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	778	1050	1591	-	-	-
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1591	-	1015	-	-
HCM Lane V/C Ratio	0.043	-	0.044	-	-
HCM Control Delay (s)	7.4	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	39	66	73	54	7
Future Vol, veh/h	4	39	66	73	54	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	42	72	79	59	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	286	63	67	0	-	0
Stage 1	63	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	709	1007	1547	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	674	1007	1547	-	-	-
Mov Cap-2 Maneuver	674	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1547	-	963	-	-
HCM Lane V/C Ratio	0.046	-	0.049	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	41	70	135	87	7
Future Vol, veh/h	4	41	70	135	87	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	45	76	147	95	8

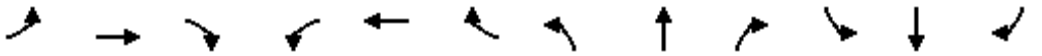
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	398	99	103	0	-	0
Stage 1	99	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	611	962	1502	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	577	962	1502	-	-	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	757	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	2.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1502	-	908	-	-
HCM Lane V/C Ratio	0.051	-	0.054	-	-
HCM Control Delay (s)	7.5	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map 6
Near Term (2026) WP - AM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	71	224	19	270	53	435	432	17	62	586	86
Future Volume (veh/h)	22	71	224	19	270	53	435	432	17	62	586	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	29	93	295	25	355	70	572	568	22	82	771	113
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	71	436	369	64	418	354	353	1866	832	103	2399	745
Arrive On Green	0.04	0.23	0.23	0.04	0.22	0.22	0.03	0.17	0.17	0.06	0.47	0.47
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	29	93	295	25	355	70	572	568	22	82	771	113
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	2.1	5.4	23.5	1.9	24.6	4.8	13.7	18.7	1.5	6.1	12.7	5.5
Cycle Q Clear(g_c), s	2.1	5.4	23.5	1.9	24.6	4.8	13.7	18.7	1.5	6.1	12.7	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	436	369	64	418	354	353	1866	832	103	2399	745
V/C Ratio(X)	0.41	0.21	0.80	0.39	0.85	0.20	1.62	0.30	0.03	0.80	0.32	0.15
Avail Cap(c_a), veh/h	205	617	523	211	612	519	353	1866	832	194	2399	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	42.0	48.9	63.6	50.2	42.6	65.2	34.5	27.4	62.8	22.3	20.4
Incr Delay (d2), s/veh	1.4	0.6	10.0	1.4	10.0	0.5	290.0	0.4	0.1	5.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	10.4	0.9	12.7	2.0	20.6	9.0	0.6	2.9	5.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	42.5	58.9	65.0	60.2	43.1	355.2	34.9	27.5	68.0	22.7	20.9
LnGrp LOS	E	D	E	E	E	D	F	C	C	E	C	C
Approach Vol, veh/h		417			450			1162			966	
Approach Delay, s/veh		55.7			57.8			192.4			26.3	
Approach LOS		E			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	69.1	9.9	36.0	13.1	76.0	8.9	37.0
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	15.7	14.7	4.1	26.6	8.1	20.7	3.9	25.5
Green Ext Time (p_c), s	0.0	11.8	0.0	3.6	0.0	6.9	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	99.6
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary
2: Willow Avenue & Behymer Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	133	238	21	138	58	130	775	19	49	770	75
Future Volume (veh/h)	69	133	238	21	138	58	130	775	19	49	770	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	87	168	301	27	175	73	165	981	24	62	975	95
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	108	403	342	67	225	94	189	2703	839	96	2455	744
Arrive On Green	0.06	0.22	0.22	0.04	0.18	0.18	0.11	0.53	0.53	0.11	0.95	0.95
Sat Flow, veh/h	1781	1870	1585	1767	1243	519	1781	5106	1585	1795	5147	1559
Grp Volume(v), veh/h	87	168	301	27	0	248	165	981	24	62	975	95
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1767	0	1762	1781	1702	1585	1795	1716	1559
Q Serve(g_s), s	6.5	10.4	24.8	2.0	0.0	18.1	12.3	15.1	1.0	4.5	1.9	0.4
Cycle Q Clear(g_c), s	6.5	10.4	24.8	2.0	0.0	18.1	12.3	15.1	1.0	4.5	1.9	0.4
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	403	342	67	0	318	189	2703	839	96	2455	744
V/C Ratio(X)	0.80	0.42	0.88	0.40	0.00	0.78	0.87	0.36	0.03	0.65	0.40	0.13
Avail Cap(c_a), veh/h	182	603	511	202	0	568	194	2703	839	196	2455	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.85	0.85	0.85	0.87	0.87	0.87
Uniform Delay (d), s/veh	62.6	45.6	51.3	63.5	0.0	52.7	59.5	18.5	15.2	59.1	1.7	1.6
Incr Delay (d2), s/veh	5.1	0.8	12.4	1.5	0.0	8.9	27.5	0.3	0.1	2.4	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.0	11.0	0.9	0.0	8.8	7.0	6.1	0.4	2.0	0.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	46.5	63.7	64.9	0.0	61.6	87.0	18.8	15.2	61.4	2.1	1.9
LnGrp LOS	E	D	E	E	A	E	F	B	B	E	A	A
Approach Vol, veh/h		556			275			1170			1132	
Approach Delay, s/veh		59.1			62.0			28.4			5.3	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	70.1	14.4	30.9	12.5	77.2	9.7	35.6
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.3	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	14.3	3.9	8.5	20.1	6.5	17.1	4.0	26.8
Green Ext Time (p_c), s	0.0	19.3	0.0	2.8	0.0	13.8	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	406	150	297	618	244	185	872	213	251	1270	201
Future Volume (veh/h)	107	406	150	297	618	244	185	872	213	251	1270	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	122	461	170	338	702	277	210	991	242	285	1443	228
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	1	1	1
Cap, veh/h	189	669	299	384	895	399	260	2183	677	335	2323	711
Arrive On Green	0.05	0.19	0.19	0.11	0.25	0.25	0.08	0.43	0.43	0.10	0.45	0.45
Sat Flow, veh/h	3456	3554	1585	3428	3526	1571	3428	5066	1571	3483	5147	1576
Grp Volume(v), veh/h	122	461	170	338	702	277	210	991	242	285	1443	228
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1571	1714	1689	1571	1742	1716	1576
Q Serve(g_s), s	5.0	17.5	14.1	14.1	26.9	23.2	8.7	20.1	15.0	11.7	31.0	13.5
Cycle Q Clear(g_c), s	5.0	17.5	14.1	14.1	26.9	23.2	8.7	20.1	15.0	11.7	31.0	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	669	299	384	895	399	260	2183	677	335	2323	711
V/C Ratio(X)	0.64	0.69	0.57	0.88	0.78	0.69	0.81	0.45	0.36	0.85	0.62	0.32
Avail Cap(c_a), veh/h	462	1073	479	430	1065	474	442	2183	677	449	2323	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	67.1	54.9	53.5	63.4	50.4	49.0	66.0	29.2	27.7	64.5	30.3	25.5
Incr Delay (d2), s/veh	1.4	3.0	4.0	1.8	0.3	0.4	2.3	0.7	1.5	8.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	8.2	6.0	6.3	11.9	9.2	3.9	8.4	6.0	5.6	13.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.5	57.9	57.5	65.2	50.7	49.4	68.3	29.9	29.2	72.5	31.4	26.6
LnGrp LOS	E	E	E	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		753			1317			1443			1956	
Approach Delay, s/veh		59.5			54.2			35.3			36.9	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	71.2	13.5	43.0	20.2	68.2	23.1	33.5
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	10.7	33.0	7.0	28.9	13.7	22.1	16.1	19.5
Green Ext Time (p_c), s	0.2	5.9	0.1	6.7	0.3	12.7	0.2	7.5

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	102	0	2	0	320	219	0	0	261	6
Future Vol, veh/h	1	2	102	0	2	0	320	219	0	0	261	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	1	2	126	0	2	0	395	270	0	0	322	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1387	1386	326	1450	1389	270	329	0	0	270	0	0
Stage 1	326	326	-	1060	1060	-	-	-	-	-	-	-
Stage 2	1061	1060	-	390	329	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	120	142	713	109	142	769	1219	-	-	1293	-	-
Stage 1	684	647	-	271	301	-	-	-	-	-	-	-
Stage 2	270	300	-	634	646	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	83	88	713	62	88	769	1219	-	-	1293	-	-
Mov Cap-2 Maneuver	83	88	-	62	88	-	-	-	-	-	-	-
Stage 1	423	647	-	168	186	-	-	-	-	-	-	-
Stage 2	165	186	-	520	646	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	47.1	5.6	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1219	-	-	590	88	1293	-	-
HCM Lane V/C Ratio	0.324	-	-	0.22	0.028	-	-	-
HCM Control Delay (s)	9.4	0	-	12.8	47.1	0	-	-
HCM Lane LOS	A	A	-	B	E	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	0.8	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	100.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	126	46	17	167	306	45	256	11	126	250	3
Future Vol, veh/h	3	126	46	17	167	306	45	256	11	126	250	3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	3	3	3	4	4	4	4	4	4	2	2	2
Mvmt Flow	4	152	55	20	201	369	54	308	13	152	301	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	24.2	169.3	51.5	88.4
HCM LOS	C	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	2%	3%	33%
Vol Thru, %	82%	72%	34%	66%
Vol Right, %	4%	26%	62%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	312	175	490	379
LT Vol	45	3	17	126
Through Vol	256	126	167	250
RT Vol	11	46	306	3
Lane Flow Rate	376	211	590	457
Geometry Grp	1	1	1	1
Degree of Util (X)	0.875	0.532	1.286	1.045
Departure Headway (Hd)	9.454	10.196	8.075	9.087
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	387	356	455	402
Service Time	7.454	8.196	6.075	7.087
HCM Lane V/C Ratio	0.972	0.593	1.297	1.137
HCM Control Delay	51.5	24.2	169.3	88.4
HCM Lane LOS	F	C	F	F
HCM 95th-tile Q	8.6	3	24.7	13.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	668	241	148	724	133	191	257	89	205	459	117
Future Volume (veh/h)	84	668	241	148	724	133	191	257	89	205	459	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	795	287	176	862	158	227	306	106	244	546	139
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	148	901	402	202	526	445	252	617	523	268	634	538
Arrive On Green	0.08	0.25	0.25	0.11	0.28	0.28	0.14	0.33	0.33	0.15	0.34	0.34
Sat Flow, veh/h	1795	3582	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	100	795	287	176	862	158	227	306	106	244	546	139
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.0	27.8	21.3	12.7	36.8	10.4	16.3	17.0	6.2	17.5	35.4	8.3
Cycle Q Clear(g_c), s	7.0	27.8	21.3	12.7	36.8	10.4	16.3	17.0	6.2	17.5	35.4	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	901	402	202	526	445	252	617	523	268	634	538
V/C Ratio(X)	0.68	0.88	0.71	0.87	1.64	0.35	0.90	0.50	0.20	0.91	0.86	0.26
Avail Cap(c_a), veh/h	290	937	418	285	526	445	288	617	523	288	634	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	46.8	44.4	56.7	46.6	37.1	54.9	34.9	31.3	54.3	40.1	31.1
Incr Delay (d2), s/veh	1.6	8.0	4.8	14.4	296.6	0.8	25.3	2.8	0.9	28.5	14.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	13.3	9.0	6.5	60.2	4.1	9.1	8.3	2.5	10.0	18.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	54.8	49.2	71.1	343.1	37.9	80.2	37.7	32.1	82.8	54.4	32.3
LnGrp LOS	E	D	D	E	F	D	F	D	C	F	D	C
Approach Vol, veh/h		1182			1196			639			929	
Approach Delay, s/veh		53.9			262.8			51.9			58.6	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	50.1	14.7	42.8	23.6	48.9	18.8	38.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	9.3	37.4	9.0	38.8	19.5	19.0	14.7	29.8
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.1	2.0	0.1	2.9

Intersection Summary	
HCM 6th Ctrl Delay	118.0
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	260	3	0	489	2	0
Future Vol, veh/h	260	3	0	489	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	283	3	0	532	2	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.9	13.9	8.9
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	99%	100%
Vol Right, %	0%	1%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	2	263	489
LT Vol	2	0	0
Through Vol	0	260	489
RT Vol	0	3	0
Lane Flow Rate	2	286	532
Geometry Grp	1	1	1
Degree of Util (X)	0.004	0.355	0.618
Departure Headway (Hd)	5.838	4.465	4.184
Convergence, Y/N	Yes	Yes	Yes
Cap	615	809	850
Service Time	3.853	2.468	2.272
HCM Lane V/C Ratio	0.003	0.354	0.626
HCM Control Delay	8.9	9.9	13.9
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0	1.6	4.4

Intersection	
Intersection Delay, s/veh	30.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	328	0	3	83	0	86	176	3	138	0
Future Vol, veh/h	0	0	0	328	0	3	83	0	86	176	3	138	0
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	9	9	0	0	0
Mvmt Flow	0	0	0	475	0	4	120	0	125	255	4	200	0
Number of Lanes	0	0	0	1	0	1	1	0	1	1	1	2	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	55.1	13.7	11.4
HCM LOS	F	B	B

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	86	176	328	3	3	69	69
LT Vol	0	0	0	328	0	3	0	0
Through Vol	83	86	0	0	0	0	69	69
RT Vol	0	0	176	0	3	0	0	0
Lane Flow Rate	120	125	255	475	4	4	100	100
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.239	0.253	0.467	0.951	0.007	0.01	0.218	0.169
Departure Headway (Hd)	7.155	7.312	6.592	7.204	6.004	8.349	7.831	6.072
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	491	546	509	600	429	458	590
Service Time	4.899	5.057	4.336	4.904	3.704	6.1	5.583	3.822
HCM Lane V/C Ratio	0.239	0.255	0.467	0.933	0.007	0.009	0.218	0.169
HCM Control Delay	12.1	12.5	15	55.5	8.7	11.2	12.8	10.1
HCM Lane LOS	B	B	B	F	A	B	B	B
HCM 95th-tile Q	0.9	1	2.5	11.9	0	0	0.8	0.6

HCM 6th Signalized Intersection Summary
9: Clovis Avenue & Shepherd Avenue

Tract Map 6
Near Term (2026) WP - AM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	684	134	213	649	113	111	193	132	152	380	201
Future Volume (veh/h)	108	684	134	213	649	113	111	193	132	152	380	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	130	824	161	257	782	136	134	233	159	183	458	242
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	243	856	381	311	931	415	157	1123	501	588	1428	637
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.09	0.33	0.33	0.17	0.41	0.41
Sat Flow, veh/h	3428	3526	1569	3456	3554	1585	1711	3413	1522	3374	3469	1547
Grp Volume(v), veh/h	130	824	161	257	782	136	134	233	159	183	458	242
Grp Sat Flow(s),veh/h/ln	1714	1763	1569	1728	1777	1585	1711	1706	1522	1687	1735	1547
Q Serve(g_s), s	5.1	32.3	12.1	10.2	29.2	9.7	10.8	6.9	11.0	6.6	12.5	15.3
Cycle Q Clear(g_c), s	5.1	32.3	12.1	10.2	29.2	9.7	10.8	6.9	11.0	6.6	12.5	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	856	381	311	931	415	157	1123	501	588	1428	637
V/C Ratio(X)	0.53	0.96	0.42	0.83	0.84	0.33	0.85	0.21	0.32	0.31	0.32	0.38
Avail Cap(c_a), veh/h	598	856	381	602	931	415	298	1123	501	588	1428	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	52.4	44.7	62.6	48.9	41.7	62.6	33.8	35.2	50.5	27.9	28.7
Incr Delay (d2), s/veh	0.7	22.1	1.1	2.1	7.2	0.7	4.9	0.4	1.6	1.4	0.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	16.9	4.9	4.6	13.9	3.9	4.9	3.0	4.3	2.9	5.4	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	74.5	45.8	64.7	56.1	42.4	67.5	34.2	36.8	51.8	28.5	30.4
LnGrp LOS	E	E	D	E	E	D	E	C	D	D	C	C
Approach Vol, veh/h		1115			1175			526			883	
Approach Delay, s/veh		69.1			56.4			43.5			33.9	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	63.3	15.5	42.7	30.0	51.8	18.2	40.0
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	12.8	17.3	7.1	31.2	8.6	13.0	12.2	34.3
Green Ext Time (p_c), s	0.1	8.7	0.2	1.8	0.3	3.9	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	223	265	391	716	202
Future Volume (veh/h)	81	223	265	391	716	202
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	107	293	349	514	942	266
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	2	2	2	2
Cap, veh/h	372	331	335	2391	1555	693
Arrive On Green	0.21	0.21	0.19	0.67	0.44	0.44
Sat Flow, veh/h	1795	1598	1781	3647	3647	1585
Grp Volume(v), veh/h	107	293	349	514	942	266
Grp Sat Flow(s),veh/h/ln	1795	1598	1781	1777	1777	1585
Q Serve(g_s), s	4.3	15.1	16.0	4.7	17.2	9.6
Cycle Q Clear(g_c), s	4.3	15.1	16.0	4.7	17.2	9.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	372	331	335	2391	1555	693
V/C Ratio(X)	0.29	0.88	1.04	0.21	0.61	0.38
Avail Cap(c_a), veh/h	530	472	335	2391	1555	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	28.4	32.7	34.5	5.3	18.3	16.2
Incr Delay (d2), s/veh	0.2	10.5	60.2	0.2	1.6	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.6	12.3	1.5	7.0	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.6	43.2	94.7	5.5	19.9	17.6
LnGrp LOS	C	D	F	A	B	B
Approach Vol, veh/h	400			863	1208	
Approach Delay, s/veh	39.3			41.6	19.4	
Approach LOS	D			D	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.0	42.5			62.5	22.5
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	16.0	29.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	18.0	19.2			6.7	17.1
Green Ext Time (p_c), s	0.0	6.3			4.9	0.5

Intersection Summary		
HCM 6th Ctrl Delay		30.3
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	352	341	67	399	180	153	462	20	70	823	72
Future Volume (veh/h)	41	352	341	67	399	180	153	462	20	70	823	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	47	405	392	77	459	207	176	531	23	80	946	83
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	92	488	414	103	503	426	199	1761	767	103	1580	687
Arrive On Green	0.05	0.26	0.26	0.06	0.27	0.27	0.11	0.50	0.50	0.06	0.44	0.44
Sat Flow, veh/h	1781	1870	1585	1795	1885	1596	1767	3526	1535	1781	3554	1546
Grp Volume(v), veh/h	47	405	392	77	459	207	176	531	23	80	946	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1596	1767	1763	1535	1781	1777	1546
Q Serve(g_s), s	3.9	30.6	36.4	6.3	35.4	16.4	14.7	13.3	1.1	6.6	30.2	4.7
Cycle Q Clear(g_c), s	3.9	30.6	36.4	6.3	35.4	16.4	14.7	13.3	1.1	6.6	30.2	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	488	414	103	503	426	199	1761	767	103	1580	687
V/C Ratio(X)	0.51	0.83	0.95	0.74	0.91	0.49	0.88	0.30	0.03	0.78	0.60	0.12
Avail Cap(c_a), veh/h	368	495	420	311	503	426	365	1761	767	309	1580	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	52.3	54.4	69.6	53.3	46.3	65.6	22.1	19.1	69.7	31.5	24.4
Incr Delay (d2), s/veh	1.6	11.8	31.0	3.9	21.2	1.3	4.6	0.4	0.1	4.6	1.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	16.0	18.1	3.0	19.7	6.7	6.9	5.7	0.4	3.2	13.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	64.1	85.4	73.5	74.4	47.6	70.2	22.5	19.1	74.3	33.2	24.8
LnGrp LOS	E	E	F	E	E	D	E	C	B	E	C	C
Approach Vol, veh/h		844			743			730			1109	
Approach Delay, s/veh		74.4			66.9			33.9			35.5	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	72.0	11.7	45.4	12.7	80.2	12.6	44.5
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	16.9	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	16.7	32.2	5.9	37.4	8.6	15.3	8.3	38.4
Green Ext Time (p_c), s	0.2	1.8	0.0	0.0	0.1	5.6	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	285	154	44	418	104	127	501	61	154	1119	40
Future Volume (veh/h)	15	285	154	44	418	104	127	501	61	154	1119	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	17	320	173	49	470	117	143	563	69	173	1257	45
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	1	1	1
Cap, veh/h	62	449	380	117	515	437	169	1333	163	199	1543	55
Arrive On Green	0.04	0.25	0.25	0.07	0.28	0.28	0.10	0.42	0.42	0.11	0.44	0.44
Sat Flow, veh/h	1739	1826	1545	1781	1870	1585	1767	3154	385	1795	3524	126
Grp Volume(v), veh/h	17	320	173	49	470	117	143	314	318	173	638	664
Grp Sat Flow(s),veh/h/ln	1739	1826	1545	1781	1870	1585	1767	1763	1776	1795	1791	1859
Q Serve(g_s), s	1.2	20.0	11.9	3.3	30.4	7.2	10.0	15.6	15.7	11.9	38.9	39.0
Cycle Q Clear(g_c), s	1.2	20.0	11.9	3.3	30.4	7.2	10.0	15.6	15.7	11.9	38.9	39.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.07
Lane Grp Cap(c), veh/h	62	449	380	117	515	437	169	745	751	199	784	814
V/C Ratio(X)	0.27	0.71	0.46	0.42	0.91	0.27	0.84	0.42	0.42	0.87	0.81	0.82
Avail Cap(c_a), veh/h	153	574	486	157	588	498	297	745	751	230	784	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	58.7	43.1	40.0	56.1	43.8	35.4	55.6	25.3	25.4	54.7	30.7	30.7
Incr Delay (d2), s/veh	0.9	2.4	0.6	0.9	17.4	0.4	4.3	1.7	1.7	17.4	6.4	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	9.3	4.6	1.5	16.5	2.9	4.6	6.9	7.0	6.3	17.9	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	45.5	40.6	57.0	61.2	35.8	59.9	27.1	27.1	72.0	37.2	37.0
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	D	D
Approach Vol, veh/h		510			636			775			1475	
Approach Delay, s/veh		44.3			56.2			33.2			41.2	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	60.4	8.5	40.1	17.9	58.5	12.2	36.4
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	12.0	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	12.0	41.0	3.2	32.4	13.9	17.7	5.3	22.0
Green Ext Time (p_c), s	0.1	0.0	0.0	2.0	0.1	4.4	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1049	511	0	1536	887	0	0	0	73	0	729
Future Volume (veh/h)	0	1049	511	0	1536	887	0	0	0	73	0	729
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1885	0	1885
Adj Flow Rate, veh/h	0	1116	544	0	1634	0				78	0	776
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				1	0	1
Cap, veh/h	0	3518	867	0	3068					962	0	776
Arrive On Green	0.00	0.55	0.55	0.00	0.73	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6696	1585	0	5611	3170				3483	0	2812
Grp Volume(v), veh/h	0	1116	544	0	1634	0				78	0	776
Grp Sat Flow(s),veh/h/ln	0	1609	1585	0	1870	1585				1742	0	1406
Q Serve(g_s), s	0.0	12.4	30.8	0.0	16.8	0.0				2.2	0.0	35.9
Cycle Q Clear(g_c), s	0.0	12.4	30.8	0.0	16.8	0.0				2.2	0.0	35.9
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3518	867	0	3068					962	0	776
V/C Ratio(X)	0.00	0.32	0.63	0.00	0.53					0.08	0.00	1.00
Avail Cap(c_a), veh/h	0	3959	975	0	3453					962	0	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.1	20.3	0.0	10.3	0.0				34.8	0.0	47.0
Incr Delay (d2), s/veh	0.0	0.2	3.4	0.0	0.6	0.0				0.1	0.0	32.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	12.0	0.0	5.5	0.0				0.9	0.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.4	23.8	0.0	10.9	0.0				34.9	0.0	79.2
LnGrp LOS	A	B	C	A	B					C	A	E
Approach Vol, veh/h		1660			1634						854	
Approach Delay, s/veh		18.8			10.9						75.1	
Approach LOS		B			B						E	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	77.9	43.2	77.9
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	80.0	35.9	80.0
Max Q Clear Time (g_c+I1), s	32.8	37.9	18.8
Green Ext Time (p_c), s	38.3	0.0	50.0

Intersection Summary	
HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	899	223	0	1955	83	463	0	598	0	0	0
Future Volume (veh/h)	0	899	223	0	1955	83	463	0	598	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1885	1885	1841	0	1841			
Adj Flow Rate, veh/h	0	999	0	0	2172	92	514	0	664			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	2	2	0	1	1	4	0	4			
Cap, veh/h	0	2985		0	4464	934	1536	0	853			
Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.58	0.31	0.00	0.31			
Sat Flow, veh/h	0	5274	1585	0	7993	1598	4944	0	2745			
Grp Volume(v), veh/h	0	999	0	0	2172	92	514	0	664			
Grp Sat Flow(s),veh/h/ln	0	1702	1585	0	1527	1598	1648	0	1373			
Q Serve(g_s), s	0.0	13.1	0.0	0.0	21.5	3.3	10.4	0.0	28.6			
Cycle Q Clear(g_c), s	0.0	13.1	0.0	0.0	21.5	3.3	10.4	0.0	28.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2985		0	4464	934	1536	0	853			
V/C Ratio(X)	0.00	0.33		0.00	0.49	0.10	0.33	0.00	0.78			
Avail Cap(c_a), veh/h	0	2985		0	4464	934	1536	0	853			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.97	0.00	0.00	0.62	0.62	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	13.9	0.0	0.0	15.7	11.9	34.5	0.0	40.7			
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.2	0.1	0.6	0.0	6.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	5.1	0.0	0.0	7.4	1.2	4.3	0.0	10.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.2	0.0	0.0	15.9	12.0	35.0	0.0	47.7			
LnGrp LOS	A	B		A	B	B	D	A	D			
Approach Vol, veh/h		999			2264			1178				
Approach Delay, s/veh		14.2			15.8			42.2				
Approach LOS		B			B			D				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		82.8				82.8		47.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		76.0				76.0		40.4				
Max Q Clear Time (g_c+I1), s		15.1				23.5		30.6				
Green Ext Time (p_c), s		29.2				50.6		6.5				

Intersection Summary		
HCM 6th Ctrl Delay		22.4
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	356	887	249	152	1063	177	250	307	122	197	410	724
Future Volume (veh/h)	356	887	249	152	1063	177	250	307	122	197	410	724
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	383	954	268	163	1143	190	269	330	131	212	441	778
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	431	2180	677	290	1983	615	319	932	346	315	1305	703
Arrive On Green	0.13	0.43	0.43	0.08	0.39	0.39	0.09	0.26	0.26	0.09	0.25	0.25
Sat Flow, veh/h	3428	5066	1572	3456	5106	1584	3456	3645	1354	3483	5147	2773
Grp Volume(v), veh/h	383	954	268	163	1143	190	269	307	154	212	441	778
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1584	1728	1702	1595	1742	1716	1387
Q Serve(g_s), s	17.0	20.5	18.1	7.0	27.3	12.9	11.9	11.4	12.4	9.1	10.8	39.3
Cycle Q Clear(g_c), s	17.0	20.5	18.1	7.0	27.3	12.9	11.9	11.4	12.4	9.1	10.8	39.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.85	1.00		1.00
Lane Grp Cap(c), veh/h	431	2180	677	290	1983	615	319	870	408	315	1305	703
V/C Ratio(X)	0.89	0.44	0.40	0.56	0.58	0.31	0.84	0.35	0.38	0.67	0.34	1.11
Avail Cap(c_a), veh/h	553	2180	677	557	1983	615	669	870	408	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	31.0	30.3	68.3	37.4	32.9	69.2	47.2	47.5	68.3	47.2	57.9
Incr Delay (d2), s/veh	10.6	0.6	1.5	0.6	1.2	1.3	2.3	1.1	2.7	0.9	0.7	67.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	8.6	7.3	3.2	11.7	5.3	5.4	5.0	5.3	4.1	4.8	20.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	31.6	31.9	68.9	38.6	34.2	71.6	48.3	50.2	69.2	47.9	124.8
LnGrp LOS	E	C	C	E	D	C	E	D	D	E	D	F
Approach Vol, veh/h		1605			1496			730			1431	
Approach Delay, s/veh		42.5			41.3			57.3			92.9	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.5	66.2	19.0	45.3	18.0	72.7	19.3	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	19.0	29.3	11.1	14.4	9.0	22.5	13.9	41.3
Green Ext Time (p_c), s	0.4	5.2	0.4	1.9	0.2	7.2	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.9
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	249	8	10	459	25	7
Future Vol, veh/h	249	8	10	459	25	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	293	9	12	540	29	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	302	0	862	298
Stage 1	-	-	-	-	298	-
Stage 2	-	-	-	-	564	-
Critical Hdwy	-	-	4.14	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1248	-	328	746
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1248	-	323	746
Mov Cap-2 Maneuver	-	-	-	-	323	-
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	565	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	369	-	-	1248	-
HCM Lane V/C Ratio	0.102	-	-	0.009	-
HCM Control Delay (s)	15.9	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	104	36	64	182	3
Future Vol, veh/h	9	104	36	64	182	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	113	39	70	198	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	348	200	201	0	-	0
Stage 1	200	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	653	846	1383	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	634	846	1383	-	-	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	884	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	2.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1383	-	824	-	-
HCM Lane V/C Ratio	0.028	-	0.149	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Intersection Delay, s/veh	282.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	741	195	67	721	11	110	15	49	24	58	99
Future Vol, veh/h	63	741	195	67	721	11	110	15	49	24	58	99
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	1	1	1	0	0	0	0	0	0
Mvmt Flow	64	756	199	68	736	11	112	15	50	24	59	101
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	401.3	250.8	20	19.6
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	63%	6%	8%	13%
Vol Thru, %	9%	74%	90%	32%
Vol Right, %	28%	20%	1%	55%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	999	799	181
LT Vol	110	63	67	24
Through Vol	15	741	721	58
RT Vol	49	195	11	99
Lane Flow Rate	178	1019	815	185
Geometry Grp	1	1	1	1
Degree of Util (X)	0.393	1.835	1.485	0.395
Departure Headway (Hd)	10.412	7.25	7.796	10.128
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	348	510	473	358
Service Time	8.412	5.25	5.796	8.128
HCM Lane V/C Ratio	0.511	1.998	1.723	0.517
HCM Control Delay	20	401.3	250.8	19.6
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	1.8	57.7	35.3	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	574	140	37	447	370	208	97	38	185	142	27
Future Volume (veh/h)	32	574	140	37	447	370	208	97	38	185	142	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	33	598	146	39	466	385	217	101	40	193	148	28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	71	795	355	76	424	359	240	896	759	216	703	133
Arrive On Green	0.04	0.22	0.22	0.04	0.23	0.23	0.13	0.48	0.48	0.12	0.47	0.47
Sat Flow, veh/h	1781	3554	1585	1781	1870	1585	1781	1870	1585	1753	1504	285
Grp Volume(v), veh/h	33	598	146	39	466	385	217	101	40	193	0	176
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1870	1585	1753	0	1789
Q Serve(g_s), s	2.7	23.6	11.8	3.2	34.0	34.0	18.0	4.5	2.0	16.3	0.0	8.7
Cycle Q Clear(g_c), s	2.7	23.6	11.8	3.2	34.0	34.0	18.0	4.5	2.0	16.3	0.0	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	71	795	355	76	424	359	240	896	759	216	0	836
V/C Ratio(X)	0.46	0.75	0.41	0.51	1.10	1.07	0.90	0.11	0.05	0.89	0.00	0.21
Avail Cap(c_a), veh/h	368	806	359	368	424	359	368	896	759	362	0	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.4	54.3	49.8	70.3	58.0	58.0	63.9	21.5	20.9	64.8	0.0	23.6
Incr Delay (d2), s/veh	1.8	4.6	1.4	2.0	73.3	67.8	13.2	0.3	0.1	8.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	11.1	4.9	1.5	24.7	20.4	9.1	2.1	0.8	7.8	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	58.9	51.2	72.2	131.3	125.8	77.1	21.8	21.0	73.2	0.0	24.2
LnGrp LOS	E	E	D	E	F	F	E	C	C	E	A	C
Approach Vol, veh/h		777			890			358			369	
Approach Delay, s/veh		58.0			126.3			55.2			49.8	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	75.8	10.0	40.0	22.5	77.5	10.4	39.6
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	10.0	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	20.0	10.7	4.7	36.0	18.3	6.5	5.2	25.6
Green Ext Time (p_c), s	0.2	1.0	0.0	0.0	0.2	0.6	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	81.7
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	0	0	3	0	0
Future Vol, veh/h	9	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	0	0	3	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3	2	0	0	3	0
Stage 1	2	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1025	1088	-	-	1632	-
Stage 1	1026	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1025	1088	-	-	1632	-
Mov Cap-2 Maneuver	1025	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1025	1632	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	0	3	11	0	9
Future Vol, veh/h	31	0	3	11	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	0	3	12	0	10

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	19	9	0	0	15	0
Stage 1	9	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1004	1079	-	-	1616	-
Stage 1	1019	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1004	1079	-	-	1616	-
Mov Cap-2 Maneuver	1004	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1004	1616	-
HCM Lane V/C Ratio	-	-	0.034	-	-
HCM Control Delay (s)	-	-	8.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	0	25	14	0	74
Future Vol, veh/h	40	0	25	14	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	0	27	15	0	80

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	43	0	112	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1579	-	890	1033
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1579	-	875	1033
Mov Cap-2 Maneuver	-	-	-	-	875	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	943	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1033	-	-	1579	-
HCM Lane V/C Ratio	0.078	-	-	0.017	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	55	19	25	16	2
Future Vol, veh/h	6	55	19	25	16	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	60	21	27	17	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	87	18	19	0	-	0
Stage 1	18	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	919	1066	1611	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	907	1066	1611	-	-	-
Mov Cap-2 Maneuver	907	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1611	-	1048	-	-
HCM Lane V/C Ratio	0.013	-	0.063	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	58	20	38	67	2
Future Vol, veh/h	6	58	20	38	67	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	63	22	41	73	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	159	74	75	0	-	0
Stage 1	74	-	-	-	-	-
Stage 2	85	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	837	993	1537	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	824	993	1537	-	-	-
Mov Cap-2 Maneuver	824	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	974	-	-
HCM Lane V/C Ratio	0.014	-	0.071	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	61	21	52	124	2
Future Vol, veh/h	6	61	21	52	124	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	66	23	57	135	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	239	136	137	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	754	918	1459	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	926	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	742	918	1459	-	-	-
Mov Cap-2 Maneuver	742	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	926	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	2.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1459	-	899	-	-
HCM Lane V/C Ratio	0.016	-	0.081	-	-
HCM Control Delay (s)	7.5	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map 6
Near Term (2026) WP - PM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	40	188	16	64	29	169	597	24	19	468	11
Future Volume (veh/h)	9	40	188	16	64	29	169	597	24	19	468	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	44	209	18	71	32	188	663	27	21	520	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	297	252	52	308	261	242	2259	1008	58	2994	930
Arrive On Green	0.02	0.16	0.16	0.03	0.16	0.16	0.05	0.42	0.42	0.03	0.58	0.58
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	44	209	18	71	32	188	663	27	21	520	12
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	2.7	17.2	1.3	4.4	2.3	7.2	16.4	1.3	1.5	6.3	0.4
Cycle Q Clear(g_c), s	0.7	2.7	17.2	1.3	4.4	2.3	7.2	16.4	1.3	1.5	6.3	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	297	252	52	308	261	242	2259	1008	58	2994	930
V/C Ratio(X)	0.30	0.15	0.83	0.35	0.23	0.12	0.78	0.29	0.03	0.36	0.17	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	382	2259	1008	196	2994	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	48.9	55.0	64.3	48.9	48.0	63.4	19.4	15.1	64.0	13.1	11.9
Incr Delay (d2), s/veh	1.9	0.5	14.9	1.5	0.6	0.4	2.0	0.3	0.0	1.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	7.9	0.6	2.2	1.0	3.2	7.4	0.5	0.7	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	49.5	70.0	65.8	49.6	48.4	65.4	19.8	15.1	65.4	13.3	11.9
LnGrp LOS	E	D	E	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		263			121			878			553	
Approach Delay, s/veh		66.4			51.7			29.4			15.2	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	84.2	7.1	28.1	9.7	90.2	7.9	27.2
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	14.7	38.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	9.2	8.3	2.7	6.4	3.5	18.4	3.3	19.2
Green Ext Time (p_c), s	0.1	7.8	0.0	0.8	0.0	8.7	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	57	128	42	100	28	170	749	36	55	670	12
Future Volume (veh/h)	12	57	128	42	100	28	170	749	36	55	670	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	14	65	145	48	114	32	193	851	41	62	761	14
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	1	1	1
Cap, veh/h	44	209	177	89	175	49	184	3233	1003	96	2960	897
Arrive On Green	0.02	0.11	0.11	0.05	0.12	0.12	0.10	0.62	0.62	0.02	0.19	0.19
Sat Flow, veh/h	1810	1900	1610	1795	1416	398	1810	5187	1610	1795	5147	1560
Grp Volume(v), veh/h	14	65	145	48	0	146	193	851	41	62	761	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	0	1814	1810	1729	1610	1795	1716	1560
Q Serve(g_s), s	1.0	4.3	11.9	3.5	0.0	10.4	13.7	10.0	1.3	4.6	17.0	1.0
Cycle Q Clear(g_c), s	1.0	4.3	11.9	3.5	0.0	10.4	13.7	10.0	1.3	4.6	17.0	1.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	209	177	89	0	224	184	3233	1003	96	2960	897
V/C Ratio(X)	0.32	0.31	0.82	0.54	0.00	0.65	1.05	0.26	0.04	0.65	0.26	0.02
Avail Cap(c_a), veh/h	185	612	519	205	0	584	184	3233	1003	196	2960	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.49	0.49	0.49	0.97	0.97	0.97
Uniform Delay (d), s/veh	64.8	55.3	58.7	62.7	0.0	56.4	60.7	11.5	9.8	65.0	30.1	23.6
Incr Delay (d2), s/veh	1.5	1.0	10.5	1.9	0.0	7.0	60.5	0.1	0.0	2.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	5.3	1.7	0.0	5.2	9.2	3.5	0.5	2.2	7.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	56.3	69.2	64.6	0.0	63.4	121.2	11.6	9.9	67.7	30.3	23.7
LnGrp LOS	E	E	E	E	A	E	F	B	A	E	C	C
Approach Vol, veh/h		224			194			1085			837	
Approach Delay, s/veh		65.3			63.7			31.0			33.0	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	83.3	9.5	23.2	12.5	89.8	11.3	21.4
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	3.7	40.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	15.7	19.0	3.0	12.4	6.6	12.0	5.5	13.9
Green Ext Time (p_c), s	0.0	9.9	0.0	1.6	0.0	13.0	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
3: Willow Avenue & Shepherd Avenue

Tract Map 6
Near Term (2026) WP - PM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	689	123	340	594	304	279	1382	472	330	1001	197
Future Volume (veh/h)	252	689	123	340	594	304	279	1382	472	330	1001	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	268	733	131	362	632	323	297	1470	502	351	1065	210
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	319	926	413	408	1047	467	347	1767	548	398	1833	561
Arrive On Green	0.09	0.26	0.26	0.12	0.29	0.29	0.10	0.34	0.34	0.11	0.36	0.36
Sat Flow, veh/h	3510	3610	1610	3510	3610	1609	3510	5187	1609	3483	5147	1575
Grp Volume(v), veh/h	268	733	131	362	632	323	297	1470	502	351	1065	210
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1609	1755	1729	1609	1742	1716	1575
Q Serve(g_s), s	10.9	27.5	9.5	14.7	21.8	25.9	12.1	37.8	43.4	14.4	24.4	14.4
Cycle Q Clear(g_c), s	10.9	27.5	9.5	14.7	21.8	25.9	12.1	37.8	43.4	14.4	24.4	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	926	413	408	1047	467	347	1767	548	398	1833	561
V/C Ratio(X)	0.84	0.79	0.32	0.89	0.60	0.69	0.86	0.83	0.92	0.88	0.58	0.37
Avail Cap(c_a), veh/h	470	1090	486	441	1090	486	453	1767	548	449	1833	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	64.9	50.3	43.6	63.1	44.3	45.7	64.3	44.0	45.8	63.3	37.9	34.7
Incr Delay (d2), s/veh	5.8	4.8	1.0	2.0	0.1	0.4	9.9	4.7	22.5	15.1	1.3	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	12.9	3.9	6.5	9.5	10.3	5.8	16.3	20.4	7.1	10.1	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.7	55.1	44.7	65.1	44.4	46.1	74.2	48.7	68.3	78.3	39.2	36.5
LnGrp LOS	E	E	D	E	D	D	E	D	E	E	D	D
Approach Vol, veh/h		1132			1317			2269			1626	
Approach Delay, s/veh		57.6			50.5			56.4			47.3	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	57.4	18.8	48.3	22.9	55.1	23.7	43.4
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	14.3	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	14.1	26.4	12.9	27.9	16.4	45.4	16.7	29.5
Green Ext Time (p_c), s	0.2	9.9	0.3	6.1	0.2	0.0	0.1	7.6

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	2	59	0	2	0	105	237	1	0	260	3
Future Vol, veh/h	4	2	59	0	2	0	105	237	1	0	260	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	5	2	69	0	2	0	122	276	1	0	302	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	826	825	304	860	826	277	305	0	0	277	0	0
Stage 1	304	304	-	521	521	-	-	-	-	-	-	-
Stage 2	522	521	-	339	305	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	293	310	740	276	307	762	1262	-	-	1292	-	-
Stage 1	710	667	-	539	532	-	-	-	-	-	-	-
Stage 2	542	535	-	676	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	266	275	740	227	272	762	1262	-	-	1292	-	-
Mov Cap-2 Maneuver	266	275	-	227	272	-	-	-	-	-	-	-
Stage 1	629	667	-	478	471	-	-	-	-	-	-	-
Stage 2	478	474	-	611	662	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	18.3	2.5	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1262	-	-	637	272	1292	-	-
HCM Lane V/C Ratio	0.097	-	-	0.119	0.009	-	-	-
HCM Control Delay (s)	8.2	0	-	11.4	18.3	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0	0	-	-

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	96	34	17	105	105	49	243	18	105	239	2
Future Vol, veh/h	3	96	34	17	105	105	49	243	18	105	239	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	1	1	1	0	0	0	1	1	1	1	1	1
Mvmt Flow	3	109	39	19	119	119	56	276	20	119	272	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.3	14.3	17.5	19.9
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	2%	7%	30%
Vol Thru, %	78%	72%	46%	69%
Vol Right, %	6%	26%	46%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	310	133	227	346
LT Vol	49	3	17	105
Through Vol	243	96	105	239
RT Vol	18	34	105	2
Lane Flow Rate	352	151	258	393
Geometry Grp	1	1	1	1
Degree of Util (X)	0.591	0.28	0.447	0.657
Departure Headway (Hd)	6.035	6.659	6.241	6.015
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	538	575	598
Service Time	4.087	4.724	4.299	4.065
HCM Lane V/C Ratio	0.592	0.281	0.449	0.657
HCM Control Delay	17.5	12.3	14.3	19.9
HCM Lane LOS	C	B	B	C
HCM 95th-tile Q	3.8	1.1	2.3	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	981	153	105	868	201	195	489	150	151	346	103
Future Volume (veh/h)	137	981	153	105	868	201	195	489	150	151	346	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	147	1055	165	113	933	216	210	526	161	162	372	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	173	984	439	151	497	421	236	723	613	188	673	571
Arrive On Green	0.10	0.27	0.27	0.08	0.26	0.26	0.13	0.38	0.38	0.10	0.36	0.36
Sat Flow, veh/h	1795	3582	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	147	1055	165	113	933	216	210	526	161	162	372	111
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	10.5	35.7	10.9	7.9	34.0	14.9	15.0	31.0	9.0	11.5	20.5	6.2
Cycle Q Clear(g_c), s	10.5	35.7	10.9	7.9	34.0	14.9	15.0	31.0	9.0	11.5	20.5	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	984	439	151	497	421	236	723	613	188	673	571
V/C Ratio(X)	0.85	1.07	0.38	0.75	1.88	0.51	0.89	0.73	0.26	0.86	0.55	0.19
Avail Cap(c_a), veh/h	290	984	439	292	497	421	290	723	613	290	673	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	47.1	38.1	58.3	48.0	40.9	55.6	34.3	27.5	57.3	33.5	28.9
Incr Delay (d2), s/veh	2.8	43.4	0.4	2.8	402.5	1.7	21.5	6.3	1.0	9.6	3.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	21.1	4.2	3.6	70.9	5.9	8.0	14.9	3.5	5.7	10.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	90.5	38.6	61.1	450.5	42.6	77.0	40.6	28.5	66.9	36.7	29.6
LnGrp LOS	E	F	D	E	F	D	E	D	C	E	D	C
Approach Vol, veh/h		1367			1262			897			645	
Approach Delay, s/veh		81.0			345.8			47.0			43.1	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	52.4	16.5	40.0	17.6	55.9	14.8	41.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	17.0	22.5	12.5	36.0	13.5	33.0	9.9	37.7
Green Ext Time (p_c), s	0.1	2.8	0.1	0.0	0.1	0.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	148.0
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	216	4	0	224	4	0
Future Vol, veh/h	216	4	0	224	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	235	4	0	243	4	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.7	8.7	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	98%	100%
Vol Right, %	0%	2%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	4	220	224
LT Vol	4	0	0
Through Vol	0	216	224
RT Vol	0	4	0
Lane Flow Rate	4	239	243
Geometry Grp	1	1	1
Degree of Util (X)	0.006	0.272	0.276
Departure Headway (Hd)	5.121	4.094	4.086
Convergence, Y/N	Yes	Yes	Yes
Cap	703	870	874
Service Time	3.121	2.148	2.139
HCM Lane V/C Ratio	0.006	0.275	0.278
HCM Control Delay	8.2	8.7	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	1.1	1.1

Intersection	
Intersection Delay, s/veh	33.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	291	0	1	30	0	168	411	1	124	0
Future Vol, veh/h	0	0	0	291	0	1	30	0	168	411	1	124	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	2	2	0	0	0
Mvmt Flow	0	0	0	388	0	1	40	0	224	548	1	165	0
Number of Lanes	0	0	0	1	0	1	1	0	1	1	1	2	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	38.7	36.2	11.4
HCM LOS	E	E	B

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	168	411	291	1	1	62	62
LT Vol	0	0	0	291	0	1	0	0
Through Vol	30	168	0	0	0	0	62	62
RT Vol	0	0	411	0	1	0	0	0
Lane Flow Rate	40	224	548	388	1	1	83	83
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.076	0.426	0.933	0.835	0.002	0.003	0.186	0.146
Departure Headway (Hd)	6.81	6.844	6.127	7.75	6.551	8.631	8.114	6.354
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	526	592	469	550	414	441	563
Service Time	4.549	4.584	3.867	5.45	4.251	6.389	5.871	4.11
HCM Lane V/C Ratio	0.076	0.426	0.926	0.827	0.002	0.002	0.188	0.147
HCM Control Delay	10.1	14.6	46.9	38.8	9.3	11.4	12.7	10.2
HCM Lane LOS	B	B	E	E	A	B	B	B
HCM 95th-tile Q	0.2	2.1	12.1	8.2	0	0	0.7	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	863	155	164	874	142	203	392	175	131	265	156
Future Volume (veh/h)	186	863	155	164	874	142	203	392	175	131	265	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	196	908	163	173	920	149	214	413	184	138	279	164
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	870	387	250	877	391	238	1255	560	612	1409	628
Arrive On Green	0.07	0.24	0.24	0.07	0.24	0.24	0.13	0.35	0.35	0.17	0.39	0.39
Sat Flow, veh/h	3483	3582	1594	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	196	908	163	173	920	149	214	413	184	138	279	164
Grp Sat Flow(s),veh/h/ln	1742	1791	1594	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	7.8	34.0	12.1	6.7	34.0	10.8	16.3	11.8	11.8	4.7	7.1	9.7
Cycle Q Clear(g_c), s	7.8	34.0	12.1	6.7	34.0	10.8	16.3	11.8	11.8	4.7	7.1	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	870	387	250	877	391	238	1255	560	612	1409	628
V/C Ratio(X)	0.79	1.04	0.42	0.69	1.05	0.38	0.90	0.33	0.33	0.23	0.20	0.26
Avail Cap(c_a), veh/h	607	870	387	612	877	391	315	1255	560	612	1409	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.9	53.0	44.7	63.5	53.0	44.2	59.8	33.6	33.6	49.7	28.2	29.0
Incr Delay (d2), s/veh	2.1	42.3	1.1	1.3	44.2	0.9	18.1	0.7	1.5	0.9	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	19.9	4.8	3.0	20.2	4.3	8.5	5.2	4.7	2.1	3.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	95.3	45.8	64.8	97.2	45.1	77.9	34.3	35.1	50.5	28.5	30.0
LnGrp LOS	E	F	D	E	F	D	E	C	D	D	C	C
Approach Vol, veh/h		1267			1242			811			581	
Approach Delay, s/veh		84.4			86.4			46.0			34.2	
Approach LOS		F			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	60.3	15.6	40.0	30.0	54.4	15.6	40.0
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	9.3	11.7	9.8	36.0	6.7	13.8	8.7	36.0
Green Ext Time (p_c), s	0.1	6.1	0.3	0.0	0.2	5.9	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.6
HCM 6th LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	89	157	810	545	74
Future Volume (veh/h)	90	89	157	810	545	74
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1900	1900
Adj Flow Rate, veh/h	111	110	194	1000	673	91
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	1	1	1	1	0	0
Cap, veh/h	168	150	169	2817	2329	1039
Arrive On Green	0.09	0.09	0.09	0.79	0.65	0.65
Sat Flow, veh/h	1795	1598	1795	3676	3705	1610
Grp Volume(v), veh/h	111	110	194	1000	673	91
Grp Sat Flow(s),veh/h/ln	1795	1598	1795	1791	1805	1610
Q Serve(g_s), s	5.1	5.7	8.0	7.0	6.9	1.8
Cycle Q Clear(g_c), s	5.1	5.7	8.0	7.0	6.9	1.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	168	150	169	2817	2329	1039
V/C Ratio(X)	0.66	0.74	1.15	0.36	0.29	0.09
Avail Cap(c_a), veh/h	530	472	169	2817	2329	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	37.2	37.5	38.5	2.7	6.6	5.7
Incr Delay (d2), s/veh	1.7	2.6	114.6	0.4	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.2	8.8	1.6	2.1	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.9	40.1	153.1	3.0	6.9	5.8
LnGrp LOS	D	D	F	A	A	A
Approach Vol, veh/h	221			1194	764	
Approach Delay, s/veh	39.5			27.4	6.7	
Approach LOS	D			C	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.0	60.1			72.1	12.9
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	8.0	37.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	10.0	8.9			9.0	7.7
Green Ext Time (p_c), s	0.0	6.3			11.5	0.3

Intersection Summary		
HCM 6th Ctrl Delay	21.4	
HCM 6th LOS	C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	472	393	43	449	74	312	882	46	43	553	48
Future Volume (veh/h)	55	472	393	43	449	74	312	882	46	43	553	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	59	502	418	46	478	79	332	938	49	46	588	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	99	503	426	92	492	416	352	1823	794	93	1313	571
Arrive On Green	0.05	0.26	0.26	0.05	0.26	0.26	0.20	0.51	0.51	0.05	0.36	0.36
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1560	1810	3610	1569
Grp Volume(v), veh/h	59	502	418	46	478	79	332	938	49	46	588	51
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1560	1810	1805	1569
Q Serve(g_s), s	4.8	39.6	38.7	3.7	37.7	5.8	27.3	26.1	2.4	3.7	18.6	3.2
Cycle Q Clear(g_c), s	4.8	39.6	38.7	3.7	37.7	5.8	27.3	26.1	2.4	3.7	18.6	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	503	426	92	492	416	352	1823	794	93	1313	571
V/C Ratio(X)	0.59	1.00	0.98	0.50	0.97	0.19	0.94	0.51	0.06	0.50	0.45	0.09
Avail Cap(c_a), veh/h	374	503	426	311	492	416	371	1823	794	314	1313	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	55.1	54.8	69.3	54.9	43.1	59.4	24.5	18.7	69.3	36.3	31.4
Incr Delay (d2), s/veh	2.1	39.7	38.5	1.6	33.3	0.3	20.8	0.6	0.1	1.5	1.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	24.0	19.8	1.7	22.0	2.3	14.2	10.9	0.9	1.8	8.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.4	94.8	93.3	70.9	88.2	43.4	80.2	25.1	18.8	70.8	37.4	31.7
LnGrp LOS	E	F	F	E	F	D	F	C	B	E	D	C
Approach Vol, veh/h		979			603			1319			685	
Approach Delay, s/veh		92.7			81.0			38.7			39.2	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	59.9	12.2	44.4	11.7	81.6	11.7	45.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	9.4	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	29.3	20.6	6.8	39.7	5.7	28.1	5.7	41.6
Green Ext Time (p_c), s	0.1	4.9	0.1	0.0	0.0	6.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	60.7
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	357	176	36	322	116	147	1164	67	107	865	17
Future Volume (veh/h)	22	357	176	36	322	116	147	1164	67	107	865	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	388	191	39	350	126	160	1265	73	116	940	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	81	434	367	107	460	390	187	1597	92	171	1636	31
Arrive On Green	0.05	0.23	0.23	0.06	0.24	0.24	0.10	0.46	0.46	0.09	0.45	0.45
Sat Flow, veh/h	1795	1885	1596	1795	1885	1598	1810	3464	200	1810	3621	69
Grp Volume(v), veh/h	24	388	191	39	350	126	160	658	680	116	469	489
Grp Sat Flow(s),veh/h/ln	1795	1885	1596	1795	1885	1598	1810	1805	1859	1810	1805	1886
Q Serve(g_s), s	1.6	24.9	13.1	2.6	21.5	8.1	10.9	38.7	38.8	7.8	24.0	24.0
Cycle Q Clear(g_c), s	1.6	24.9	13.1	2.6	21.5	8.1	10.9	38.7	38.8	7.8	24.0	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.04
Lane Grp Cap(c), veh/h	81	434	367	107	460	390	187	832	857	171	816	852
V/C Ratio(X)	0.30	0.89	0.52	0.37	0.76	0.32	0.85	0.79	0.79	0.68	0.57	0.57
Avail Cap(c_a), veh/h	158	593	502	158	593	502	304	832	857	232	816	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	57.7	46.6	42.1	56.5	43.8	38.8	55.1	28.6	28.6	54.8	25.4	25.4
Incr Delay (d2), s/veh	0.7	11.6	0.8	0.8	4.4	0.5	6.6	7.6	7.5	1.4	2.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.7	5.1	1.2	10.3	3.2	5.2	17.4	18.0	3.5	10.3	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	58.2	42.9	57.3	48.3	39.3	61.7	36.1	36.1	56.2	27.7	27.6
LnGrp LOS	E	E	D	E	D	D	E	D	D	E	C	C
Approach Vol, veh/h		603			515			1498			1074	
Approach Delay, s/veh		53.4			46.8			38.8			30.7	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	62.2	9.7	36.2	15.8	63.3	11.4	34.5
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	12.9	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	12.9	26.0	3.6	23.5	9.8	40.8	4.6	26.9
Green Ext Time (p_c), s	0.1	3.5	0.0	2.2	0.1	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1755	545	0	1595	766	0	0	0	73	0	342
Future Volume (veh/h)	0	1755	545	0	1595	766	0	0	0	73	0	342
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885				1885	0	1885
Adj Flow Rate, veh/h	0	1773	551	0	1505	0				74	0	345
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	1	1	0	1	1				1	0	1
Cap, veh/h	0	3284	809	0	2864					571	0	461
Arrive On Green	0.00	0.51	0.51	0.00	0.51	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	6749	1598	0	5656	3195				3483	0	2812
Grp Volume(v), veh/h	0	1773	551	0	1505	0				74	0	345
Grp Sat Flow(s),veh/h/ln	0	1621	1598	0	1885	1598				1742	0	1406
Q Serve(g_s), s	0.0	24.5	34.3	0.0	23.6	0.0				2.4	0.0	15.4
Cycle Q Clear(g_c), s	0.0	24.5	34.3	0.0	23.6	0.0				2.4	0.0	15.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3284	809	0	2864					571	0	461
V/C Ratio(X)	0.00	0.54	0.68	0.00	0.53					0.13	0.00	0.75
Avail Cap(c_a), veh/h	0	3341	823	0	2913					1317	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.1	24.6	0.0	21.9	0.0				47.1	0.0	52.6
Incr Delay (d2), s/veh	0.0	0.6	4.6	0.0	0.6	0.0				0.3	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.0	13.3	0.0	10.1	0.0				1.1	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.8	29.2	0.0	22.6	0.0				47.4	0.0	58.5
LnGrp LOS	A	C	C	A	C					D	A	E
Approach Vol, veh/h		2324			1505						419	
Approach Delay, s/veh		24.3			22.6						56.5	
Approach LOS		C			C						E	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	73.6	29.0	73.6
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	68.0	49.9	68.0
Max Q Clear Time (g_c+I1), s	36.3	17.4	25.6
Green Ext Time (p_c), s	30.5	4.2	33.7

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1462	367	0	1822	199	520	0	987	0	0	0
Future Volume (veh/h)	0	1462	367	0	1822	199	520	0	987	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885	1885	0	1885			
Adj Flow Rate, veh/h	0	1507	0	0	1878	205	536	0	1018			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	1	0	1	1	1	0	1			
Cap, veh/h	0	2930		0	4346	909	1651	0	917			
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57	0.33	0.00	0.33			
Sat Flow, veh/h	0	5316	1598	0	7993	1598	5063	0	2812			
Grp Volume(v), veh/h	0	1507	0	0	1878	205	536	0	1018			
Grp Sat Flow(s),veh/h/ln	0	1716	1598	0	1527	1598	1688	0	1406			
Q Serve(g_s), s	0.0	23.2	0.0	0.0	18.3	8.2	10.4	0.0	42.4			
Cycle Q Clear(g_c), s	0.0	23.2	0.0	0.0	18.3	8.2	10.4	0.0	42.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2930		0	4346	909	1651	0	917			
V/C Ratio(X)	0.00	0.51		0.00	0.43	0.23	0.32	0.00	1.11			
Avail Cap(c_a), veh/h	0	2930		0	4346	909	1651	0	917			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.94	0.00	0.00	0.54	0.54	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	17.1	0.0	0.0	16.0	13.8	33.0	0.0	43.8			
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.2	0.3	0.5	0.0	64.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	8.7	0.0	0.0	6.0	2.9	4.3	0.0	22.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.7	0.0	0.0	16.2	14.1	33.5	0.0	108.5			
LnGrp LOS	A	B		A	B	B	C	A	F			
Approach Vol, veh/h		1507			2083			1554				
Approach Delay, s/veh		17.7			16.0			82.6				
Approach LOS		B			B			F				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		80.8				80.8		49.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		74.0				74.0		42.4				
Max Q Clear Time (g_c+I1), s		25.2				20.3		44.4				
Green Ext Time (p_c), s		37.7				49.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		36.6
HCM 6th LOS		D

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	677	1428	330	319	1137	203	389	560	280	316	361	484
Future Volume (veh/h)	677	1428	330	319	1137	203	389	560	280	316	361	484
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	705	1488	344	332	1184	211	405	583	292	329	376	504
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	562	1889	586	381	1622	503	457	950	434	380	1305	703
Arrive On Green	0.16	0.37	0.37	0.11	0.32	0.32	0.13	0.27	0.27	0.11	0.25	0.25
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1579	3483	5147	2773
Grp Volume(v), veh/h	705	1488	344	332	1184	211	405	583	292	329	376	504
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1579	1742	1716	1387
Q Serve(g_s), s	25.0	39.9	26.9	14.5	31.7	16.2	17.6	22.8	25.5	14.4	9.1	25.7
Cycle Q Clear(g_c), s	25.0	39.9	26.9	14.5	31.7	16.2	17.6	22.8	25.5	14.4	9.1	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	562	1889	586	381	1622	503	457	950	434	380	1305	703
V/C Ratio(X)	1.25	0.79	0.59	0.87	0.73	0.42	0.89	0.61	0.67	0.87	0.29	0.72
Avail Cap(c_a), veh/h	562	1889	586	562	1622	503	679	950	434	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	43.7	39.6	67.9	47.2	41.9	66.3	49.1	50.0	67.9	46.6	52.8
Incr Delay (d2), s/veh	123.5	2.1	2.6	7.1	2.9	2.6	7.0	3.0	8.1	2.4	0.6	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	16.9	10.8	6.8	13.7	6.7	8.2	10.1	10.9	6.4	3.9	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	188.5	45.8	42.2	75.0	50.2	44.5	73.3	52.0	58.1	70.3	47.1	59.0
LnGrp LOS	F	D	D	E	D	D	E	D	E	E	D	E
Approach Vol, veh/h		2537			1727			1280			1209	
Approach Delay, s/veh		84.9			54.2			60.1			58.4	
Approach LOS		F			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	54.8	21.9	48.3	22.0	62.9	25.2	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	27.0	33.7	16.4	27.5	16.5	41.9	19.6	27.7
Green Ext Time (p_c), s	0.0	3.2	0.5	2.8	0.4	0.0	0.6	3.8

Intersection Summary	
HCM 6th Ctrl Delay	67.6
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	176	28	11	196	17	11
Future Vol, veh/h	176	28	11	196	17	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	187	30	12	209	18	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	217	0	435	202
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1365	-	582	844
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	810	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1365	-	576	844
Mov Cap-2 Maneuver	-	-	-	-	576	-
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	802	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	1365	-
HCM Lane V/C Ratio	0.045	-	-	0.009	-
HCM Control Delay (s)	10.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	70	118	207	126	10
Future Vol, veh/h	6	70	118	207	126	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	76	128	225	137	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	624	143	148	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	452	910	1446	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	406	910	1446	-	-	-
Mov Cap-2 Maneuver	406	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	626	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	2.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1446	-	829	-	-
HCM Lane V/C Ratio	0.089	-	0.1	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-

Intersection	
Intersection Delay, s/veh	533.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	133	886	160	62	915	31	183	25	74	19	43	108
Future Vol, veh/h	133	886	160	62	915	31	183	25	74	19	43	108
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	141	943	170	66	973	33	195	27	79	20	46	115
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	708.5	552.5	38	27.3
HCM LOS	F	F	E	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	65%	11%	6%	11%
Vol Thru, %	9%	75%	91%	25%
Vol Right, %	26%	14%	3%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	282	1179	1008	170
LT Vol	183	133	62	19
Through Vol	25	886	915	43
RT Vol	74	160	31	108
Lane Flow Rate	300	1254	1072	181
Geometry Grp	1	1	1	1
Degree of Util (X)	0.67	2.514	2.16	0.42
Departure Headway (Hd)	12.669	9.206	9.802	14.329
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	288	414	386	253
Service Time	10.669	7.206	7.802	12.329
HCM Lane V/C Ratio	1.042	3.029	2.777	0.715
HCM Control Delay	38	708.5	552.5	27.3
HCM Lane LOS	E	F	F	D
HCM 95th-tile Q	4.4	78.7	58.4	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	585	161	52	659	128	282	122	76	110	129	36
Future Volume (veh/h)	43	585	161	52	659	128	282	122	76	110	129	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	45	616	169	55	694	135	297	128	80	116	136	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	81	802	358	86	427	362	319	980	830	139	594	166
Arrive On Green	0.05	0.22	0.22	0.05	0.23	0.23	0.18	0.52	0.52	0.08	0.42	0.42
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1417	396
Grp Volume(v), veh/h	45	616	169	55	694	135	297	128	80	116	0	174
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1813
Q Serve(g_s), s	3.7	24.2	13.8	4.5	34.0	10.7	24.5	5.2	3.8	9.6	0.0	9.2
Cycle Q Clear(g_c), s	3.7	24.2	13.8	4.5	34.0	10.7	24.5	5.2	3.8	9.6	0.0	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	81	802	358	86	427	362	319	980	830	139	0	760
V/C Ratio(X)	0.56	0.77	0.47	0.64	1.62	0.37	0.93	0.13	0.10	0.84	0.00	0.23
Avail Cap(c_a), veh/h	371	812	362	371	427	362	371	980	830	371	0	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.1	54.6	50.5	70.1	58.0	49.0	60.8	18.6	18.2	68.3	0.0	28.0
Incr Delay (d2), s/veh	2.2	5.1	1.8	2.9	291.4	1.2	26.2	0.3	0.2	5.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	11.4	5.7	2.1	50.3	4.4	13.3	2.3	1.5	4.5	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	59.6	52.3	73.0	349.4	50.2	87.0	18.8	18.5	73.3	0.0	28.7
LnGrp LOS	E	E	D	E	F	D	F	B	B	E	A	C
Approach Vol, veh/h		830			884			505			290	
Approach Delay, s/veh		58.8			286.5			58.9			46.5	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.6	68.6	10.8	40.0	15.6	83.6	11.2	39.6
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	26.6	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	26.5	11.2	5.7	36.0	11.6	7.2	6.5	26.2
Green Ext Time (p_c), s	0.2	0.8	0.0	0.0	0.1	0.8	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	137.6
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	0	10	0	0
Future Vol, veh/h	6	0	0	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	0	0	11	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	7	6	0	0	11	0
Stage 1	6	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1019	1083	-	-	1621	-
Stage 1	1022	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1019	1083	-	-	1621	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1019	1621	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	-	-	8.6	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	0	10	35	0	6
Future Vol, veh/h	21	0	10	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	0	11	38	0	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	37	30	0	0	49	0
Stage 1	30	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	981	1050	-	-	1571	-
Stage 1	998	-	-	-	-	-
Stage 2	1021	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	981	1050	-	-	1571	-
Mov Cap-2 Maneuver	981	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	1021	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	981	1571	-
HCM Lane V/C Ratio	-	-	0.023	-	-
HCM Control Delay (s)	-	-	8.8	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	27	0	84	45	0	50
Future Vol, veh/h	27	0	84	45	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	29	0	91	49	0	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	260	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1597	-	733	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1597	-	690	1052
Mov Cap-2 Maneuver	-	-	-	-	690	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1052	-	-	1597	-
HCM Lane V/C Ratio	0.052	-	-	0.057	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	37	63	23	32	7
Future Vol, veh/h	4	37	63	23	32	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	40	68	25	35	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	200	39	43	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	793	1038	1579	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	758	1038	1579	-	-	-
Mov Cap-2 Maneuver	758	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	5.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1579	-	1002	-	-
HCM Lane V/C Ratio	0.043	-	0.044	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	39	66	82	62	7
Future Vol, veh/h	4	39	66	82	62	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	42	72	89	67	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	304	71	75	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	233	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	692	997	1537	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	658	997	1537	-	-	-
Mov Cap-2 Maneuver	658	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	951	-	-
HCM Lane V/C Ratio	0.047	-	0.049	-	-
HCM Control Delay (s)	7.5	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	41	70	144	95	7
Future Vol, veh/h	4	41	70	144	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	45	76	157	103	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	416	107	111	0	-	0
Stage 1	107	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	597	953	1492	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	564	953	1492	-	-	-
Mov Cap-2 Maneuver	564	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1492	-	898	-	-
HCM Lane V/C Ratio	0.051	-	0.054	-	-
HCM Control Delay (s)	7.5	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map 6
Cumulative Year (2046) NP - AM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	93	230	42	447	77	440	440	28	65	611	90
Future Volume (veh/h)	23	93	230	42	447	77	440	440	28	65	611	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	25	101	250	46	486	84	478	478	30	71	664	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	65	529	448	87	540	457	353	1654	738	98	2083	647
Arrive On Green	0.04	0.28	0.28	0.05	0.29	0.29	0.03	0.15	0.15	0.06	0.41	0.41
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	25	101	250	46	486	84	478	478	30	71	664	98
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	1.8	5.5	18.0	3.4	33.7	5.4	13.7	16.0	2.2	5.3	11.9	5.3
Cycle Q Clear(g_c), s	1.8	5.5	18.0	3.4	33.7	5.4	13.7	16.0	2.2	5.3	11.9	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	529	448	87	540	457	353	1654	738	98	2083	647
V/C Ratio(X)	0.39	0.19	0.56	0.53	0.90	0.18	1.35	0.29	0.04	0.72	0.32	0.15
Avail Cap(c_a), veh/h	205	617	523	211	612	519	353	1654	738	194	2083	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	36.9	41.4	62.7	46.2	36.1	65.2	37.6	31.7	62.8	27.2	25.2
Incr Delay (d2), s/veh	1.4	0.4	2.6	1.9	16.3	0.3	174.0	0.4	0.1	3.7	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	7.5	1.6	18.1	2.1	14.9	7.7	0.9	2.4	4.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	37.3	44.0	64.6	62.5	36.4	239.3	38.0	31.8	66.5	27.6	25.7
LnGrp LOS	E	D	D	E	E	D	F	D	C	E	C	C
Approach Vol, veh/h		376			616			986			833	
Approach Delay, s/veh		43.6			59.1			135.4			30.7	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	60.8	9.5	44.8	12.7	68.0	10.6	43.7
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	15.7	13.9	3.8	35.7	7.3	18.0	5.4	20.0
Green Ext Time (p_c), s	0.0	10.3	0.0	3.3	0.0	6.3	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	75.4
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
2: Willow Avenue & Behymer Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	156	250	99	362	159	137	796	20	55	803	79
Future Volume (veh/h)	72	156	250	99	362	159	137	796	20	55	803	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	78	170	272	108	393	173	149	865	22	60	873	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	100	591	501	131	393	173	173	2007	623	95	1796	543
Arrive On Green	0.06	0.32	0.32	0.07	0.32	0.32	0.10	0.39	0.39	0.11	0.70	0.70
Sat Flow, veh/h	1781	1870	1585	1767	1221	538	1781	5106	1585	1795	5147	1557
Grp Volume(v), veh/h	78	170	272	108	0	566	149	865	22	60	873	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1767	0	1759	1781	1702	1585	1795	1716	1557
Q Serve(g_s), s	5.8	9.2	19.1	8.1	0.0	43.4	11.1	16.7	1.2	4.3	10.5	2.5
Cycle Q Clear(g_c), s	5.8	9.2	19.1	8.1	0.0	43.4	11.1	16.7	1.2	4.3	10.5	2.5
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	591	501	131	0	567	173	2007	623	95	1796	543
V/C Ratio(X)	0.78	0.29	0.54	0.82	0.00	1.00	0.86	0.43	0.04	0.63	0.49	0.16
Avail Cap(c_a), veh/h	182	603	511	202	0	567	194	2007	623	196	1796	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	0.91	0.91	0.91
Uniform Delay (d), s/veh	62.9	34.7	38.1	61.6	0.0	45.7	60.1	29.9	25.2	59.1	14.8	13.6
Incr Delay (d2), s/veh	4.9	0.3	1.3	8.5	0.0	37.5	23.3	0.6	0.1	2.3	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.3	7.7	4.0	0.0	24.7	6.2	7.0	0.5	2.0	3.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	35.1	39.4	70.1	0.0	83.2	83.3	30.5	25.3	61.4	15.7	14.2
LnGrp LOS	E	D	D	E	A	F	F	C	C	E	B	B
Approach Vol, veh/h		520			674			1036			1019	
Approach Delay, s/veh		42.3			81.1			38.0			18.3	
Approach LOS		D			F			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	52.8	13.8	50.0	12.5	58.8	14.6	49.2
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	13.1	12.5	7.8	45.4	6.3	18.7	10.1	21.1
Green Ext Time (p_c), s	0.0	14.7	0.0	0.0	0.0	11.7	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	407	286	308	611	239	390	916	320	258	1334	211
Future Volume (veh/h)	112	407	286	308	611	239	390	916	320	258	1334	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	122	442	311	335	664	260	424	996	348	280	1450	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	1	1	1
Cap, veh/h	189	870	388	381	1091	486	442	1909	592	330	1763	539
Arrive On Green	0.05	0.24	0.24	0.11	0.31	0.31	0.13	0.38	0.38	0.09	0.34	0.34
Sat Flow, veh/h	3456	3554	1585	3428	3526	1571	3428	5066	1571	3483	5147	1575
Grp Volume(v), veh/h	122	442	311	335	664	260	424	996	348	280	1450	229
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1571	1714	1689	1571	1742	1716	1575
Q Serve(g_s), s	5.0	15.6	26.7	14.0	23.2	19.9	17.8	22.1	25.7	11.5	37.4	16.2
Cycle Q Clear(g_c), s	5.0	15.6	26.7	14.0	23.2	19.9	17.8	22.1	25.7	11.5	37.4	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	870	388	381	1091	486	442	1909	592	330	1763	539
V/C Ratio(X)	0.64	0.51	0.80	0.88	0.61	0.53	0.96	0.52	0.59	0.85	0.82	0.42
Avail Cap(c_a), veh/h	462	1073	479	430	1091	486	442	1909	592	449	1763	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	67.1	47.2	51.4	63.5	42.6	41.4	62.8	35.0	36.2	64.6	43.6	36.7
Incr Delay (d2), s/veh	1.4	1.1	11.0	1.8	0.1	0.1	32.1	1.0	4.2	7.1	3.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.1	11.8	6.2	10.2	7.8	9.8	9.4	10.6	5.4	16.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.5	48.3	62.4	65.2	42.7	41.5	94.9	36.1	40.4	71.7	47.4	38.7
LnGrp LOS	E	D	E	E	D	D	F	D	D	E	D	D
Approach Vol, veh/h		875			1259			1768			1959	
Approach Delay, s/veh		56.1			48.4			51.0			49.8	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	55.4	13.5	51.1	20.0	60.3	22.9	41.7
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	19.8	39.4	7.0	25.2	13.5	27.7	16.0	28.7
Green Ext Time (p_c), s	0.0	0.0	0.1	7.1	0.3	9.5	0.2	6.7

Intersection Summary	
HCM 6th Ctrl Delay	50.8
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	2	146	0	50	0	437	238	0	0	291	29
Future Vol, veh/h	5	2	146	0	50	0	437	238	0	0	291	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	5	2	159	0	54	0	475	259	0	0	316	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1568	1541	332	1622	1557	259	348	0	0	259	0	0
Stage 1	332	332	-	1209	1209	-	-	-	-	-	-	-
Stage 2	1236	1209	-	413	348	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	90	115	707	82	113	780	1200	-	-	1306	-	-
Stage 1	679	643	-	223	256	-	-	-	-	-	-	-
Stage 2	215	255	-	616	634	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	15	62	707	40	61	780	1200	-	-	1306	-	-
Mov Cap-2 Maneuver	15	62	-	40	61	-	-	-	-	-	-	-
Stage 1	365	643	-	120	138	-	-	-	-	-	-	-
Stage 2	70	137	-	476	634	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.4	195.2	6.4	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1200	-	-	267	61	1306	-	-
HCM Lane V/C Ratio	0.396	-	-	0.623	0.891	-	-	-
HCM Control Delay (s)	10	0	-	38.4	195.2	0	-	-
HCM Lane LOS	A	A	-	E	F	A	-	-
HCM 95th %tile Q(veh)	1.9	-	-	3.8	4.1	0	-	-

Intersection	
Intersection Delay, s/veh	442.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	128	96	43	511	371	115	269	12	163	589	8
Future Vol, veh/h	3	128	96	43	511	371	115	269	12	163	589	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	4	4	4	4	4	4	2	2	2
Mvmt Flow	3	139	104	47	555	403	125	292	13	177	640	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	48.6	642.9	115.6	485.4
HCM LOS	E	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	1%	5%	21%
Vol Thru, %	68%	56%	55%	78%
Vol Right, %	3%	42%	40%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	396	227	925	760
LT Vol	115	3	43	163
Through Vol	269	128	511	589
RT Vol	12	96	371	8
Lane Flow Rate	430	247	1005	826
Geometry Grp	1	1	1	1
Degree of Util (X)	1.042	0.644	2.357	1.991
Departure Headway (Hd)	16.006	17.951	10.906	12.554
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	232	205	342	297
Service Time	14.006	15.951	8.906	10.554
HCM Lane V/C Ratio	1.853	1.205	2.939	2.781
HCM Control Delay	115.6	48.6	642.9	485.4
HCM Lane LOS	F	E	F	F
HCM 95th-tile Q	10	3.8	60.8	40.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	680	364	127	699	140	218	310	84	331	892	123
Future Volume (veh/h)	88	680	364	127	699	140	218	310	84	331	892	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	739	396	138	760	152	237	337	91	360	970	134
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	147	935	417	163	504	427	262	619	525	288	647	548
Arrive On Green	0.08	0.26	0.26	0.09	0.27	0.27	0.15	0.33	0.33	0.16	0.35	0.35
Sat Flow, veh/h	1795	3582	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	96	739	396	138	760	152	237	337	91	360	970	134
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.7	25.0	31.7	10.0	35.3	10.1	17.0	19.1	5.3	21.0	45.0	7.9
Cycle Q Clear(g_c), s	6.7	25.0	31.7	10.0	35.3	10.1	17.0	19.1	5.3	21.0	45.0	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	935	417	163	504	427	262	619	525	288	647	548
V/C Ratio(X)	0.65	0.79	0.95	0.84	1.51	0.36	0.91	0.54	0.17	1.25	1.50	0.24
Avail Cap(c_a), veh/h	290	937	418	285	504	427	288	619	525	288	647	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	44.7	47.2	58.1	47.4	38.2	54.6	35.5	30.8	54.5	42.5	30.4
Incr Delay (d2), s/veh	1.4	3.8	26.6	4.5	239.1	0.8	27.2	3.4	0.7	138.4	232.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	11.6	15.6	4.7	49.7	4.0	9.6	9.3	2.2	20.5	62.3	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	48.5	73.8	62.6	286.5	39.0	81.8	38.9	31.6	192.9	275.4	31.4
LnGrp LOS	E	D	E	E	F	D	F	D	C	F	F	C
Approach Vol, veh/h		1231			1050			665			1464	
Approach Delay, s/veh		57.5			221.2			53.2			232.8	
Approach LOS		E			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.1	51.0	14.7	41.3	25.0	49.1	16.0	39.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	19.0	47.0	8.7	37.3	23.0	21.1	12.0	33.7
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.0	2.0	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	154.0
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	525.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	265	171	211	564	217	118	172	53	164	450	33
Future Vol, veh/h	18	265	171	211	564	217	118	172	53	164	450	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	4	4	4	0	0	0	0	0	0
Mvmt Flow	20	288	186	229	613	236	128	187	58	178	489	36
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	208.6	868	118.4	439.3
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	4%	21%	25%
Vol Thru, %	50%	58%	57%	70%
Vol Right, %	15%	38%	22%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	343	454	992	647
LT Vol	118	18	211	164
Through Vol	172	265	564	450
RT Vol	53	171	217	33
Lane Flow Rate	373	493	1078	703
Geometry Grp	1	1	1	1
Degree of Util (X)	0.991	1.284	2.849	1.866
Departure Headway (Hd)	20.887	19	13.14	15.572
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	179	197	291	239
Service Time	18.887	17	11.14	13.572
HCM Lane V/C Ratio	2.084	2.503	3.704	2.941
HCM Control Delay	118.4	208.6	868	439.3
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	7.9	13.5	67.6	30.4

Intersection	
Intersection Delay, s/veh	30.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	51	0	36	87	0	455	84	30	826	0
Future Vol, veh/h	0	0	0	51	0	36	87	0	455	84	30	826	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	9	9	0	0	0
Mvmt Flow	0	0	0	55	0	39	95	0	495	91	33	898	0
Number of Lanes	0	0	0	1	0	1	1	0	1	1	1	2	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	12.5	41.5	23.5
HCM LOS	B	E	C

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	455	84	51	36	30	413	413
LT Vol	0	0	0	51	0	30	0	0
Through Vol	87	455	0	0	0	0	413	413
RT Vol	0	0	84	0	36	0	0	0
Lane Flow Rate	95	495	91	55	39	33	449	449
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.177	0.945	0.157	0.14	0.085	0.064	0.82	0.606
Departure Headway (Hd)	6.724	6.879	6.173	9.084	7.863	7.078	6.574	4.86
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	531	524	577	397	459	503	548	736
Service Time	4.503	4.658	3.951	6.784	5.563	4.869	4.364	2.649
HCM Lane V/C Ratio	0.179	0.945	0.158	0.139	0.085	0.066	0.819	0.61
HCM Control Delay	11	53.1	10.1	13.3	11.3	10.4	32.9	15
HCM Lane LOS	B	F	B	B	B	B	D	B
HCM 95th-tile Q	0.6	11.9	0.6	0.5	0.3	0.2	8.2	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	716	210	317	675	152	117	142	173	119	437	206
Future Volume (veh/h)	82	716	210	317	675	152	117	142	173	119	437	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	89	778	228	345	734	165	127	154	188	129	475	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	237	842	375	400	1014	452	150	1049	468	588	1367	610
Arrive On Green	0.07	0.24	0.24	0.12	0.29	0.29	0.09	0.31	0.31	0.17	0.39	0.39
Sat Flow, veh/h	3428	3526	1569	3456	3554	1585	1711	3413	1522	3374	3469	1547
Grp Volume(v), veh/h	89	778	228	345	734	165	127	154	188	129	475	224
Grp Sat Flow(s),veh/h/ln	1714	1763	1569	1728	1777	1585	1711	1706	1522	1687	1735	1547
Q Serve(g_s), s	3.5	30.2	18.1	13.7	26.0	11.6	10.2	4.6	13.7	4.6	13.5	14.4
Cycle Q Clear(g_c), s	3.5	30.2	18.1	13.7	26.0	11.6	10.2	4.6	13.7	4.6	13.5	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	842	375	400	1014	452	150	1049	468	588	1367	610
V/C Ratio(X)	0.38	0.92	0.61	0.86	0.72	0.36	0.85	0.15	0.40	0.22	0.35	0.37
Avail Cap(c_a), veh/h	598	856	381	602	1014	452	298	1049	468	588	1367	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	52.0	47.4	60.8	45.0	39.9	62.9	35.2	38.3	49.6	29.8	30.0
Incr Delay (d2), s/veh	0.4	15.6	3.3	5.6	2.8	0.7	4.9	0.3	2.5	0.9	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	15.2	7.5	6.3	11.9	4.7	4.7	2.0	5.5	2.0	5.8	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	67.6	50.8	66.4	47.9	40.6	67.9	35.4	40.8	50.5	30.5	31.8
LnGrp LOS	E	E	D	E	D	D	E	D	D	D	C	C
Approach Vol, veh/h		1095			1244			469			828	
Approach Delay, s/veh		63.7			52.0			46.4			33.9	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	60.9	15.3	46.0	30.0	48.7	21.8	39.5
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	12.2	16.4	5.5	28.0	6.6	15.7	15.7	32.2
Green Ext Time (p_c), s	0.1	9.0	0.1	3.4	0.2	3.0	0.5	1.3

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	234	283	405	833	289
Future Volume (veh/h)	81	234	283	405	833	289
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	254	308	440	905	314
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	2	2	2	2
Cap, veh/h	329	293	272	2477	1766	788
Arrive On Green	0.18	0.18	0.15	0.70	0.50	0.50
Sat Flow, veh/h	1795	1598	1781	3647	3647	1585
Grp Volume(v), veh/h	88	254	308	440	905	314
Grp Sat Flow(s),veh/h/ln	1795	1598	1781	1777	1777	1585
Q Serve(g_s), s	3.6	13.1	13.0	3.6	14.6	10.6
Cycle Q Clear(g_c), s	3.6	13.1	13.0	3.6	14.6	10.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	329	293	272	2477	1766	788
V/C Ratio(X)	0.27	0.87	1.13	0.18	0.51	0.40
Avail Cap(c_a), veh/h	530	472	272	2477	1766	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.82	0.82
Uniform Delay (d), s/veh	29.8	33.7	36.0	4.5	14.4	13.4
Incr Delay (d2), s/veh	0.2	5.6	94.4	0.2	0.9	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.4	12.6	1.1	5.7	3.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.0	39.3	130.4	4.6	15.3	14.7
LnGrp LOS	C	D	F	A	B	B
Approach Vol, veh/h	342			748	1219	
Approach Delay, s/veh	36.9			56.4	15.1	
Approach LOS	D			E	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	17.0	47.5			64.5	20.5
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	13.0	32.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	15.0	16.6			5.6	15.1
Green Ext Time (p_c), s	0.0	8.4			4.1	0.4

Intersection Summary		
HCM 6th Ctrl Delay	31.7	
HCM 6th LOS	C	

HCM 6th Signalized Intersection Summary
11: Clovis Avenue & Nees Avenue

Tract Map 6
Cumulative Year (2046) NP - AM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	400	358	69	471	233	161	426	21	115	732	108
Future Volume (veh/h)	61	400	358	69	471	233	161	426	21	115	732	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	66	435	389	75	512	253	175	463	23	125	796	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	100	487	412	103	493	417	198	1677	730	148	1586	690
Arrive On Green	0.06	0.26	0.26	0.06	0.26	0.26	0.11	0.48	0.48	0.08	0.45	0.45
Sat Flow, veh/h	1781	1870	1585	1795	1885	1596	1767	3526	1535	1781	3554	1546
Grp Volume(v), veh/h	66	435	389	75	512	253	175	463	23	125	796	117
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1596	1767	1763	1535	1781	1777	1546
Q Serve(g_s), s	5.4	33.6	36.1	6.2	39.2	20.9	14.6	11.9	1.2	10.4	24.0	6.8
Cycle Q Clear(g_c), s	5.4	33.6	36.1	6.2	39.2	20.9	14.6	11.9	1.2	10.4	24.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	487	412	103	493	417	198	1677	730	148	1586	690
V/C Ratio(X)	0.66	0.89	0.94	0.73	1.04	0.61	0.88	0.28	0.03	0.85	0.50	0.17
Avail Cap(c_a), veh/h	368	495	420	311	493	417	365	1677	730	309	1586	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	53.5	54.4	69.5	55.4	48.6	65.6	23.7	20.9	67.8	29.6	24.9
Incr Delay (d2), s/veh	2.7	18.7	30.1	3.6	51.0	3.0	4.6	0.4	0.1	5.0	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	18.4	17.8	3.0	25.6	8.7	6.9	5.1	0.5	5.0	10.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	72.2	84.5	73.2	106.4	51.7	70.3	24.1	21.0	72.9	30.8	25.4
LnGrp LOS	E	E	F	E	F	D	E	C	C	E	C	C
Approach Vol, veh/h		890			840			661			1038	
Approach Delay, s/veh		77.6			87.0			36.2			35.2	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	72.2	12.4	44.5	16.4	76.6	12.6	44.3
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	16.8	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	16.6	26.0	7.4	41.2	12.4	13.9	8.2	38.1
Green Ext Time (p_c), s	0.2	4.9	0.1	0.0	0.1	4.9	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	59.1
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	292	193	46	419	109	279	484	91	162	1050	57
Future Volume (veh/h)	14	292	193	46	419	109	279	484	91	162	1050	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	15	317	210	50	455	118	303	526	99	176	1141	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	1	1	1
Cap, veh/h	56	429	363	117	502	426	297	1273	238	202	1296	70
Arrive On Green	0.03	0.24	0.24	0.07	0.27	0.27	0.17	0.43	0.43	0.11	0.38	0.38
Sat Flow, veh/h	1739	1826	1545	1781	1870	1585	1767	2952	553	1795	3450	187
Grp Volume(v), veh/h	15	317	210	50	455	118	303	313	312	176	592	611
Grp Sat Flow(s),veh/h/ln	1739	1826	1545	1781	1870	1585	1767	1763	1742	1795	1791	1846
Q Serve(g_s), s	1.1	20.1	15.0	3.4	29.4	7.4	21.0	15.4	15.5	12.1	38.5	38.6
Cycle Q Clear(g_c), s	1.1	20.1	15.0	3.4	29.4	7.4	21.0	15.4	15.5	12.1	38.5	38.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.10
Lane Grp Cap(c), veh/h	56	429	363	117	502	426	297	760	751	202	673	694
V/C Ratio(X)	0.27	0.74	0.58	0.43	0.91	0.28	1.02	0.41	0.42	0.87	0.88	0.88
Avail Cap(c_a), veh/h	153	574	486	157	588	498	297	760	751	230	673	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	59.0	44.2	42.3	56.1	44.2	36.1	52.0	24.6	24.6	54.6	36.4	36.4
Incr Delay (d2), s/veh	0.9	2.7	1.0	0.9	16.3	0.4	57.6	1.6	1.7	18.6	11.6	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	9.4	5.8	1.5	15.8	2.9	14.0	6.8	6.8	6.5	18.8	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	47.0	43.3	57.0	60.4	36.5	109.6	26.2	26.3	73.2	48.0	47.8
LnGrp LOS	E	D	D	E	E	D	F	C	C	E	D	D
Approach Vol, veh/h		542			623			928			1379	
Approach Delay, s/veh		45.9			55.6			53.5			51.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	52.7	8.1	39.3	18.1	59.6	12.2	35.1
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	21.0	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	23.0	40.6	3.1	31.4	14.1	17.5	5.4	22.1
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	4.4	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
13: SR-168 WB Ramps & Herndon Avenue

Tract Map 6
Cumulative Year (2046) NP - AM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1234	899	0	1698	859	0	0	0	78	0	787
Future Volume (veh/h)	0	1234	899	0	1698	859	0	0	0	78	0	787
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1885	0	1885
Adj Flow Rate, veh/h	0	1313	956	0	1724	0				83	0	837
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				1	0	1
Cap, veh/h	0	3959	975	0	3452					962	0	776
Arrive On Green	0.00	0.62	0.62	0.00	1.00	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	6696	1585	0	5611	3170				3483	0	2812
Grp Volume(v), veh/h	0	1313	956	0	1724	0				83	0	837
Grp Sat Flow(s),veh/h/ln	0	1609	1585	0	1870	1585				1742	0	1406
Q Serve(g_s), s	0.0	12.8	76.0	0.0	0.0	0.0				2.3	0.0	35.9
Cycle Q Clear(g_c), s	0.0	12.8	76.0	0.0	0.0	0.0				2.3	0.0	35.9
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3959	975	0	3452					962	0	776
V/C Ratio(X)	0.00	0.33	0.98	0.00	0.50					0.09	0.00	1.08
Avail Cap(c_a), veh/h	0	3959	975	0	3453					962	0	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.1	24.2	0.0	0.0	0.0				34.9	0.0	47.0
Incr Delay (d2), s/veh	0.0	0.2	24.4	0.0	0.5	0.0				0.1	0.0	55.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	33.2	0.0	0.1	0.0				1.0	0.0	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.3	48.7	0.0	0.5	0.0				35.0	0.0	102.4
LnGrp LOS	A	B	D	A	A					C	A	F
Approach Vol, veh/h		2269			1724						920	
Approach Delay, s/veh		27.6			0.5						96.3	
Approach LOS		C			A						F	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	86.8	43.2	86.8
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	80.0	35.9	80.0
Max Q Clear Time (g_c+I1), s	78.0	37.9	2.0
Green Ext Time (p_c), s	2.0	0.0	63.7

Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1078	234	0	2071	93	486	0	604	0	0	0
Future Volume (veh/h)	0	1078	234	0	2071	93	486	0	604	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1885	1885	1841	0	1841			
Adj Flow Rate, veh/h	0	1172	0	0	2251	101	528	0	657			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	1	1	4	0	4			
Cap, veh/h	0	2985		0	4464	934	1536	0	853			
Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.58	0.31	0.00	0.31			
Sat Flow, veh/h	0	5274	1585	0	7993	1598	4944	0	2745			
Grp Volume(v), veh/h	0	1172	0	0	2251	101	528	0	657			
Grp Sat Flow(s),veh/h/ln	0	1702	1585	0	1527	1598	1648	0	1373			
Q Serve(g_s), s	0.0	16.1	0.0	0.0	22.6	3.6	10.7	0.0	28.2			
Cycle Q Clear(g_c), s	0.0	16.1	0.0	0.0	22.6	3.6	10.7	0.0	28.2			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2985		0	4464	934	1536	0	853			
V/C Ratio(X)	0.00	0.39		0.00	0.50	0.11	0.34	0.00	0.77			
Avail Cap(c_a), veh/h	0	2985		0	4464	934	1536	0	853			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.96	0.00	0.00	0.54	0.54	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	14.6	0.0	0.0	15.9	12.0	34.6	0.0	40.6			
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.2	0.1	0.6	0.0	6.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	6.2	0.0	0.0	7.8	1.3	4.4	0.0	10.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.9	0.0	0.0	16.1	12.1	35.2	0.0	47.2			
LnGrp LOS	A	B		A	B	B	D	A	D			
Approach Vol, veh/h		1172			2352			1185				
Approach Delay, s/veh		14.9			16.0			41.9				
Approach LOS		B			B			D				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		82.8				82.8		47.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		76.0				76.0		40.4				
Max Q Clear Time (g_c+I1), s		18.1				24.6		30.2				
Green Ext Time (p_c), s		34.6				49.9		6.7				

Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	382	936	364	196	1112	183	380	446	158	197	454	672
Future Volume (veh/h)	382	936	364	196	1112	183	380	446	158	197	454	672
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	411	1006	391	211	1196	197	409	480	170	212	488	723
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	458	1972	612	290	1734	538	461	1110	378	315	1305	703
Arrive On Green	0.13	0.39	0.39	0.08	0.34	0.34	0.13	0.30	0.30	0.09	0.25	0.25
Sat Flow, veh/h	3428	5066	1572	3456	5106	1584	3456	3742	1274	3483	5147	2773
Grp Volume(v), veh/h	411	1006	391	211	1196	197	409	435	215	212	488	723
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1584	1728	1702	1612	1742	1716	1387
Q Serve(g_s), s	18.3	23.5	31.3	9.2	31.3	14.5	18.0	16.0	16.8	9.1	12.1	39.3
Cycle Q Clear(g_c), s	18.3	23.5	31.3	9.2	31.3	14.5	18.0	16.0	16.8	9.1	12.1	39.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	458	1972	612	290	1734	538	461	1009	478	315	1305	703
V/C Ratio(X)	0.90	0.51	0.64	0.73	0.69	0.37	0.89	0.43	0.45	0.67	0.37	1.03
Avail Cap(c_a), veh/h	553	1972	612	557	1734	538	669	1009	478	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.1	36.1	38.5	69.3	44.1	38.6	66.0	44.0	44.3	68.3	47.7	57.9
Incr Delay (d2), s/veh	12.3	0.8	4.4	1.3	2.3	1.9	7.7	1.3	3.0	0.9	0.8	41.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	9.9	12.9	4.2	13.7	6.0	8.5	7.0	7.2	4.1	5.4	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	36.9	42.8	70.6	46.4	40.5	73.7	45.3	47.3	69.2	48.5	99.2
LnGrp LOS	E	D	D	E	D	D	E	D	D	E	D	F
Approach Vol, veh/h		1808			1604			1059			1423	
Approach Delay, s/veh		47.6			48.9			56.7			77.4	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.7	58.6	19.0	51.7	18.0	66.3	25.7	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	20.3	33.3	11.1	18.8	11.2	33.3	20.0	41.3
Green Ext Time (p_c), s	0.4	3.6	0.4	2.8	0.3	3.7	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	56.8
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	11.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	158	18	541	200	19
Future Vol, veh/h	261	158	18	541	200	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	284	172	20	588	217	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	456	0	998	370
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	628	-
Critical Hdwy	-	-	4.14	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1094	-	273	680
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	536	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1094	-	266	680
Mov Cap-2 Maneuver	-	-	-	-	266	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	522	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	61.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	281	-	-	1094	-
HCM Lane V/C Ratio	0.847	-	-	0.018	-
HCM Control Delay (s)	61.3	-	-	8.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	7.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	28	0	202	0	8	26	181	8	0
Future Vol, veh/h	0	0	0	28	0	202	0	8	26	181	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	30	0	220	0	9	28	197	9	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	536	440	9	426	426	23	9	0	0	37	0	0
Stage 1	403	403	-	23	23	-	-	-	-	-	-	-
Stage 2	133	37	-	403	403	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	459	514	1079	542	524	1060	1624	-	-	1587	-	-
Stage 1	628	603	-	1000	880	-	-	-	-	-	-	-
Stage 2	875	868	-	628	603	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	329	450	1079	490	459	1060	1624	-	-	1587	-	-
Mov Cap-2 Maneuver	329	450	-	490	459	-	-	-	-	-	-	-
Stage 1	628	528	-	1000	880	-	-	-	-	-	-	-
Stage 2	694	868	-	550	528	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.3	0	7.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1624	-	-	-	929	1587	-	-
HCM Lane V/C Ratio	-	-	-	-	0.269	0.124	-	-
HCM Control Delay (s)	0	-	-	0	10.3	7.6	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.1	0.4	-	-

Intersection	
Intersection Delay, s/veh	781.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	222	743	195	69	739	99	112	86	51	332	441	479
Future Vol, veh/h	222	743	195	69	739	99	112	86	51	332	441	479
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	1	1	1	0	0	0	0	0	0
Mvmt Flow	227	758	199	70	754	101	114	88	52	339	450	489
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	882.6	611.9	95.2	947.2
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	45%	19%	8%	27%
Vol Thru, %	35%	64%	81%	35%
Vol Right, %	20%	17%	11%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	249	1160	907	1252
LT Vol	112	222	69	332
Through Vol	86	743	739	441
RT Vol	51	195	99	479
Lane Flow Rate	254	1184	926	1278
Geometry Grp	1	1	1	1
Degree of Util (X)	0.675	2.847	2.22	3.014
Departure Headway (Hd)	36.788	19.453	22.179	15.409
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	102	201	176	256
Service Time	34.788	17.453	20.179	13.409
HCM Lane V/C Ratio	2.49	5.891	5.261	4.992
HCM Control Delay	95.2	882.6	611.9	947.2
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	3.4	46.9	29.4	63

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	685	270	75	463	386	213	100	40	342	534	32
Future Volume (veh/h)	53	685	270	75	463	386	213	100	40	342	534	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	55	714	281	78	482	402	222	104	42	356	556	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	85	788	351	98	428	363	245	721	611	362	782	46
Arrive On Green	0.05	0.22	0.22	0.05	0.23	0.23	0.14	0.39	0.39	0.21	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	1870	1585	1781	1870	1585	1753	1720	102
Grp Volume(v), veh/h	55	714	281	78	482	402	222	104	42	356	0	589
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1870	1585	1753	0	1822
Q Serve(g_s), s	4.5	29.4	25.2	6.5	34.3	34.3	18.4	5.4	2.5	30.3	0.0	39.1
Cycle Q Clear(g_c), s	4.5	29.4	25.2	6.5	34.3	34.3	18.4	5.4	2.5	30.3	0.0	39.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	85	788	351	98	428	363	245	721	611	362	0	828
V/C Ratio(X)	0.64	0.91	0.80	0.80	1.13	1.11	0.91	0.14	0.07	0.98	0.00	0.71
Avail Cap(c_a), veh/h	368	806	359	368	428	363	368	721	611	362	0	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.1	56.9	55.2	70.1	57.8	57.8	63.7	30.0	29.1	59.2	0.0	33.0
Incr Delay (d2), s/veh	3.0	14.3	13.2	5.5	82.8	80.0	14.2	0.4	0.2	42.4	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	14.8	11.4	3.1	26.1	21.8	9.3	2.6	1.0	17.7	0.0	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.2	71.1	68.4	75.5	140.7	137.8	77.9	30.4	29.3	101.6	0.0	38.1
LnGrp LOS	E	E	E	E	F	F	E	C	C	F	A	D
Approach Vol, veh/h		1050			962			368			945	
Approach Delay, s/veh		70.5			134.2			59.0			62.1	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.6	73.9	11.2	40.3	35.0	63.5	12.2	39.3
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	20.6	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	20.4	41.1	6.5	36.3	32.3	7.4	8.5	31.4
Green Ext Time (p_c), s	0.2	0.0	0.1	0.0	0.0	0.7	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	85.3
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major2	
Conflicting Flow All	1	1	0	0
Stage 1	1	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.5	6.2	4.1	-
Critical Hdwy Stg 1	5.5	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	4	3.3	2.2	-
Pot Cap-1 Maneuver	899	1090	-	-
Stage 1	899	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	0	1090	-	-
Mov Cap-2 Maneuver	0	-	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-

Approach	EB	WB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	WBL	WBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	0	-
HCM Lane LOS	A	A	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	219	176	0
Future Vol, veh/h	0	0	0	219	176	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	238	191	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	429	191	191	0	-	0
Stage 1	191	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	587	856	1395	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	587	856	1395	-	-	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1395	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	219	176	0
Future Vol, veh/h	0	0	0	219	176	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	238	191	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	429	191	191	0	-	0
Stage 1	191	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	587	856	1395	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	587	856	1395	-	-	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1395	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	210	189	0
Future Vol, veh/h	0	0	0	210	189	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	228	205	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	433	205	205	0	-	0
Stage 1	205	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	584	841	1378	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	584	841	1378	-	-	-
Mov Cap-2 Maneuver	584	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1378	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map 6
Cumulative Year (2046) NP - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	125	179	17	103	56	166	618	73	67	476	12
Future Volume (veh/h)	9	125	179	17	103	56	166	618	73	67	476	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	136	195	18	112	61	180	672	79	73	517	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	294	249	52	305	259	229	2182	973	100	3021	938
Arrive On Green	0.02	0.16	0.16	0.03	0.16	0.16	0.13	1.00	1.00	0.06	0.59	0.59
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	136	195	18	112	61	180	672	79	73	517	13
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	8.9	16.0	1.3	7.2	4.5	6.7	0.0	0.0	5.4	6.2	0.5
Cycle Q Clear(g_c), s	0.7	8.9	16.0	1.3	7.2	4.5	6.7	0.0	0.0	5.4	6.2	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	294	249	52	305	259	229	2182	973	100	3021	938
V/C Ratio(X)	0.30	0.46	0.78	0.35	0.37	0.24	0.78	0.31	0.08	0.73	0.17	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	356	2182	973	196	3021	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	51.7	54.7	64.3	50.3	49.2	57.8	0.0	0.0	62.8	12.8	11.6
Incr Delay (d2), s/veh	1.9	2.7	11.9	1.5	1.3	0.8	2.4	0.4	0.2	3.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.4	7.2	0.6	3.5	1.9	2.8	0.1	0.0	2.5	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	54.4	66.6	65.8	51.5	50.0	60.2	0.4	0.2	66.6	12.9	11.6
LnGrp LOS	E	D	E	E	D	D	E	A	A	E	B	B
Approach Vol, veh/h		341			191			931			603	
Approach Delay, s/veh		61.7			52.4			11.9			19.4	
Approach LOS		E			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	85.0	7.1	27.8	12.8	87.3	7.9	27.0
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	8.7	8.2	2.7	9.2	7.4	2.0	3.3	18.0
Green Ext Time (p_c), s	0.1	7.9	0.0	1.5	0.0	12.2	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
2: Willow Avenue & Behymer Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	118	134	128	140	44	179	775	180	104	684	13
Future Volume (veh/h)	13	118	134	128	140	44	179	775	180	104	684	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	14	128	146	139	152	48	195	842	196	113	743	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	1	1	1
Cap, veh/h	44	216	183	163	232	73	197	2886	896	135	2690	815
Arrive On Green	0.02	0.11	0.11	0.09	0.17	0.17	0.11	0.56	0.56	0.15	1.00	1.00
Sat Flow, veh/h	1810	1900	1610	1795	1373	434	1810	5187	1610	1795	5147	1560
Grp Volume(v), veh/h	14	128	146	139	0	200	195	842	196	113	743	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	0	1807	1810	1729	1610	1795	1716	1560
Q Serve(g_s), s	1.0	8.6	11.9	10.3	0.0	14.0	14.5	11.6	8.3	8.3	0.0	0.0
Cycle Q Clear(g_c), s	1.0	8.6	11.9	10.3	0.0	14.0	14.5	11.6	8.3	8.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	216	183	163	0	305	197	2886	896	135	2690	815
V/C Ratio(X)	0.32	0.59	0.80	0.85	0.00	0.66	0.99	0.29	0.22	0.84	0.28	0.02
Avail Cap(c_a), veh/h	185	612	519	205	0	582	197	2886	896	196	2690	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.42	0.42	0.42	0.98	0.98	0.98
Uniform Delay (d), s/veh	64.8	56.9	58.3	60.5	0.0	52.5	60.1	15.9	15.1	56.5	0.0	0.0
Incr Delay (d2), s/veh	1.5	3.1	9.2	19.9	0.0	5.3	38.7	0.1	0.2	12.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.3	5.3	5.6	0.0	6.8	8.6	4.3	3.0	3.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	60.0	67.5	80.3	0.0	57.8	98.8	16.0	15.4	69.3	0.3	0.0
LnGrp LOS	E	E	E	F	A	E	F	B	B	E	A	A
Approach Vol, veh/h		288			339			1233			870	
Approach Delay, s/veh		64.1			67.0			29.0			9.2	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	76.3	9.5	29.3	15.5	80.8	16.9	21.9
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	16.0	2.0	3.0	16.0	10.3	13.6	12.3	13.9
Green Ext Time (p_c), s	0.0	12.6	0.0	2.3	0.0	14.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	681	387	355	598	308	293	1451	492	327	1051	207
Future Volume (veh/h)	265	681	387	355	598	308	293	1451	492	327	1051	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	282	724	412	378	636	328	312	1544	523	348	1118	220
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	333	1048	468	423	1171	522	361	1573	488	395	1615	494
Arrive On Green	0.09	0.29	0.29	0.12	0.32	0.32	0.10	0.30	0.30	0.11	0.31	0.31
Sat Flow, veh/h	3510	3610	1610	3510	3610	1609	3510	5187	1609	3483	5147	1574
Grp Volume(v), veh/h	282	724	412	378	636	328	312	1544	523	348	1118	220
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1609	1755	1729	1609	1742	1716	1574
Q Serve(g_s), s	11.5	25.8	35.4	15.4	21.0	25.1	12.7	42.8	44.0	14.3	27.6	16.2
Cycle Q Clear(g_c), s	11.5	25.8	35.4	15.4	21.0	25.1	12.7	42.8	44.0	14.3	27.6	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	1048	468	423	1171	522	361	1573	488	395	1615	494
V/C Ratio(X)	0.85	0.69	0.88	0.89	0.54	0.63	0.86	0.98	1.07	0.88	0.69	0.45
Avail Cap(c_a), veh/h	470	1090	486	441	1171	522	453	1573	488	449	1615	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	64.6	45.7	49.1	62.9	40.2	41.6	64.0	50.1	50.5	63.3	43.6	39.7
Incr Delay (d2), s/veh	7.2	2.5	18.1	2.3	0.1	0.3	11.4	18.7	61.4	14.3	2.3	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	11.8	16.3	6.8	9.0	9.9	6.1	20.5	25.6	7.0	11.7	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.8	48.2	67.2	65.1	40.2	41.8	75.4	68.8	111.9	77.6	45.9	42.3
LnGrp LOS	E	D	E	E	D	D	E	E	F	E	D	D
Approach Vol, veh/h		1418			1342			2379			1686	
Approach Delay, s/veh		58.4			47.6			79.2			52.0	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	51.2	19.3	53.2	22.8	49.7	24.3	48.3
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	14.9	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	14.7	29.6	13.5	27.1	16.3	46.0	17.4	37.4
Green Ext Time (p_c), s	0.2	7.9	0.3	6.3	0.2	0.0	0.1	4.7

Intersection Summary	
HCM 6th Ctrl Delay	61.9
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	2	155	0	2	0	174	254	37	0	268	30
Future Vol, veh/h	70	2	155	0	2	0	174	254	37	0	268	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	76	2	168	0	2	0	189	276	40	0	291	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	983	1002	308	1067	998	296	324	0	0	316	0	0
Stage 1	308	308	-	674	674	-	-	-	-	-	-	-
Stage 2	675	694	-	393	324	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	230	244	737	200	244	743	1241	-	-	1250	-	-
Stage 1	706	664	-	444	454	-	-	-	-	-	-	-
Stage 2	447	447	-	632	650	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	196	199	737	131	199	743	1241	-	-	1250	-	-
Mov Cap-2 Maneuver	196	199	-	131	199	-	-	-	-	-	-	-
Stage 1	575	664	-	361	370	-	-	-	-	-	-	-
Stage 2	362	364	-	486	650	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.4	23.3	3.2	0
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1241	-	-	393	199	1250	-	-
HCM Lane V/C Ratio	0.152	-	-	0.628	0.011	-	-	-
HCM Control Delay (s)	8.4	0	-	28.4	23.3	0	-	-
HCM Lane LOS	A	A	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	4.1	0	0	-	-

Intersection	
Intersection Delay, s/veh	243.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	357	101	18	208	154	149	430	28	193	254	3
Future Vol, veh/h	7	357	101	18	208	154	149	430	28	193	254	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	0	0	0	1	1	1	1	1	1
Mvmt Flow	8	388	110	20	226	167	162	467	30	210	276	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	205.3	117.3	383.9	201.3
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	2%	5%	43%
Vol Thru, %	71%	77%	55%	56%
Vol Right, %	5%	22%	41%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	607	465	380	450
LT Vol	149	7	18	193
Through Vol	430	357	208	254
RT Vol	28	101	154	3
Lane Flow Rate	660	505	413	489
Geometry Grp	1	1	1	1
Degree of Util (X)	1.763	1.33	1.074	1.315
Departure Headway (Hd)	11.936	12.931	13.924	13.455
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	310	288	264	274
Service Time	9.936	10.931	11.924	11.455
HCM Lane V/C Ratio	2.129	1.753	1.564	1.785
HCM Control Delay	383.9	205.3	117.3	201.3
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	34.5	18.9	11.5	17.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	959	218	91	870	211	313	681	126	159	504	108
Future Volume (veh/h)	144	959	218	91	870	211	313	681	126	159	504	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	155	1031	234	98	935	227	337	732	135	171	542	116
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	181	1004	448	149	497	421	290	705	597	197	608	515
Arrive On Green	0.10	0.28	0.28	0.08	0.26	0.26	0.16	0.37	0.37	0.11	0.32	0.32
Sat Flow, veh/h	1795	3582	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	155	1031	234	98	935	227	337	732	135	171	542	116
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	11.0	36.4	16.1	6.8	34.0	15.8	21.0	48.6	7.5	12.2	35.6	6.9
Cycle Q Clear(g_c), s	11.0	36.4	16.1	6.8	34.0	15.8	21.0	48.6	7.5	12.2	35.6	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	1004	448	149	497	421	290	705	597	197	608	515
V/C Ratio(X)	0.86	1.03	0.52	0.66	1.88	0.54	1.16	1.04	0.23	0.87	0.89	0.23
Avail Cap(c_a), veh/h	290	1004	448	292	497	421	290	705	597	290	608	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	46.8	39.5	57.9	48.0	41.3	54.5	40.7	27.8	56.9	41.9	32.2
Incr Delay (d2), s/veh	4.2	28.0	0.8	1.9	404.3	2.0	104.1	44.2	0.9	12.1	17.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	19.4	6.2	3.1	71.2	6.3	17.6	30.1	2.9	6.2	19.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	74.8	40.3	59.8	452.3	43.3	158.6	84.9	28.7	69.1	59.8	33.2
LnGrp LOS	E	F	D	E	F	D	F	F	C	E	E	C
Approach Vol, veh/h		1420			1260			1204			829	
Approach Delay, s/veh		67.7			348.1			99.2			58.0	
Approach LOS		E			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	47.9	17.1	40.0	18.3	54.6	14.7	42.4
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	23.0	37.6	13.0	36.0	14.2	50.6	8.8	38.4
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	149.0
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	401.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	332	80	46	226	112	178	522	139	176	384	10
Future Vol, veh/h	11	332	80	46	226	112	178	522	139	176	384	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	361	87	50	246	122	193	567	151	191	417	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	172.6	134.6	674.1	349.1
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	3%	12%	31%
Vol Thru, %	62%	78%	59%	67%
Vol Right, %	17%	19%	29%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	839	423	384	570
LT Vol	178	11	46	176
Through Vol	522	332	226	384
RT Vol	139	80	112	10
Lane Flow Rate	912	460	417	620
Geometry Grp	1	1	1	1
Degree of Util (X)	2.417	1.214	1.095	1.66
Departure Headway (Hd)	12.611	16.08	16.782	15.081
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	301	230	221	248
Service Time	10.611	14.08	14.782	13.081
HCM Lane V/C Ratio	3.03	2	1.887	2.5
HCM Control Delay	674.1	172.6	134.6	349.1
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	55.2	13.5	10.7	25.5

Intersection	
Intersection Delay, s/veh	227.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	108	0	9	32	0	947	99	61	526	0
Future Vol, veh/h	0	0	0	108	0	9	32	0	947	99	61	526	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	2	2	0	0	0
Mvmt Flow	0	0	0	117	0	10	35	0	1029	108	66	572	0
Number of Lanes	0	0	0	1	0	1	1	0	1	1	1	2	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	16	365.6	15.8
HCM LOS	C	F	C

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	947	99	108	9	61	263	263
LT Vol	0	0	0	108	0	61	0	0
Through Vol	32	947	0	0	0	0	263	263
RT Vol	0	0	99	0	9	0	0	0
Lane Flow Rate	35	1029	108	117	10	66	286	286
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.063	1.871	0.174	0.278	0.02	0.132	0.531	0.397
Departure Headway (Hd)	6.508	6.543	5.835	9.909	8.678	8.512	8.004	6.275
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	553	566	618	365	415	424	455	577
Service Time	4.217	4.252	3.544	7.609	6.378	6.212	5.704	3.975
HCM Lane V/C Ratio	0.063	1.818	0.175	0.321	0.024	0.156	0.629	0.496
HCM Control Delay	9.7	414.8	9.8	16.4	11.6	12.5	19.4	13
HCM Lane LOS	A	F	A	C	B	B	C	B
HCM 95th-tile Q	0.2	65.7	0.6	1.1	0.1	0.5	3	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	899	163	287	914	102	222	495	366	109	165	107
Future Volume (veh/h)	101	899	163	287	914	102	222	495	366	109	165	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	946	172	302	962	107	234	521	385	115	174	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	870	387	357	990	442	258	1147	511	612	1261	562
Arrive On Green	0.07	0.24	0.24	0.10	0.27	0.27	0.14	0.32	0.32	0.17	0.35	0.35
Sat Flow, veh/h	3483	3582	1594	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	106	946	172	302	962	107	234	521	385	115	174	113
Grp Sat Flow(s),veh/h/ln	1742	1791	1594	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	4.1	34.0	12.8	11.8	36.9	7.2	17.8	16.1	30.0	3.9	4.6	6.9
Cycle Q Clear(g_c), s	4.1	34.0	12.8	11.8	36.9	7.2	17.8	16.1	30.0	3.9	4.6	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	870	387	357	990	442	258	1147	511	612	1261	562
V/C Ratio(X)	0.43	1.09	0.44	0.85	0.97	0.24	0.91	0.45	0.75	0.19	0.14	0.20
Avail Cap(c_a), veh/h	607	870	387	612	990	442	315	1147	511	612	1261	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.4	53.0	45.0	61.8	50.3	39.5	59.1	38.1	42.8	49.3	31.1	31.9
Incr Delay (d2), s/veh	0.4	57.1	1.2	2.2	22.0	0.4	21.1	1.2	8.8	0.7	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	21.6	5.1	5.2	19.1	2.9	9.5	7.2	12.8	1.8	2.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.9	110.1	46.2	64.0	72.3	39.9	80.2	39.3	51.7	50.0	31.4	32.7
LnGrp LOS	E	F	D	E	E	D	F	D	D	D	C	C
Approach Vol, veh/h		1224			1371			1140			402	
Approach Delay, s/veh		97.0			67.9			51.9			37.1	
Approach LOS		F			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.6	54.6	15.4	44.4	30.0	50.2	19.8	40.0
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	19.8	8.9	6.1	38.9	5.9	32.0	13.8	36.0
Green Ext Time (p_c), s	0.1	4.0	0.1	0.0	0.2	1.5	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.1
HCM 6th LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	147	108	165	1025	531	69
Future Volume (veh/h)	147	108	165	1025	531	69
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1900	1900
Adj Flow Rate, veh/h	160	117	179	1114	577	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	0	0
Cap, veh/h	205	182	169	2743	2255	1006
Arrive On Green	0.11	0.11	0.09	0.77	0.62	0.62
Sat Flow, veh/h	1795	1598	1795	3676	3705	1610
Grp Volume(v), veh/h	160	117	179	1114	577	75
Grp Sat Flow(s),veh/h/ln	1795	1598	1795	1791	1805	1610
Q Serve(g_s), s	7.4	5.9	8.0	9.0	6.1	1.6
Cycle Q Clear(g_c), s	7.4	5.9	8.0	9.0	6.1	1.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	205	182	169	2743	2255	1006
V/C Ratio(X)	0.78	0.64	1.06	0.41	0.26	0.07
Avail Cap(c_a), veh/h	530	472	169	2743	2255	1006
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	36.6	36.0	38.5	3.4	7.1	6.3
Incr Delay (d2), s/veh	2.4	1.4	85.8	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.3	7.5	2.3	1.9	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.1	37.4	124.3	3.8	7.4	6.4
LnGrp LOS	D	D	F	A	A	A
Approach Vol, veh/h	277			1293	652	
Approach Delay, s/veh	38.4			20.5	7.3	
Approach LOS	D			C	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.0	58.4			70.4	14.6
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	8.0	37.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	10.0	8.1			11.0	9.4
Green Ext Time (p_c), s	0.0	5.3			13.2	0.4

Intersection Summary			
HCM 6th Ctrl Delay		18.8	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	594	413	54	471	351	328	779	48	110	503	31
Future Volume (veh/h)	70	594	413	54	471	351	328	779	48	110	503	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	74	632	439	57	501	373	349	829	51	117	535	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	104	503	426	98	494	418	368	1718	748	140	1270	552
Arrive On Green	0.06	0.26	0.26	0.05	0.26	0.26	0.21	0.48	0.48	0.08	0.35	0.35
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1560	1810	3610	1568
Grp Volume(v), veh/h	74	632	439	57	501	373	349	829	51	117	535	33
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1560	1810	1805	1568
Q Serve(g_s), s	6.0	39.7	39.7	4.7	39.3	33.8	28.8	23.5	2.6	9.6	16.9	2.1
Cycle Q Clear(g_c), s	6.0	39.7	39.7	4.7	39.3	33.8	28.8	23.5	2.6	9.6	16.9	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	503	426	98	494	418	368	1718	748	140	1270	552
V/C Ratio(X)	0.71	1.26	1.03	0.58	1.01	0.89	0.95	0.48	0.07	0.84	0.42	0.06
Avail Cap(c_a), veh/h	374	503	426	311	494	418	371	1718	748	314	1270	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.49	0.49	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	55.1	55.1	69.3	55.4	53.3	58.8	26.4	21.0	68.3	37.0	32.2
Incr Delay (d2), s/veh	3.4	131.0	51.5	2.0	44.3	21.3	20.5	0.5	0.1	5.0	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	36.8	21.8	2.2	24.3	15.7	14.9	9.9	1.0	4.6	7.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.9	186.2	106.7	71.3	99.7	74.6	79.3	26.9	21.1	73.2	38.0	32.4
LnGrp LOS	E	F	F	E	F	E	E	C	C	E	D	C
Approach Vol, veh/h		1145			931			1229			685	
Approach Delay, s/veh		148.4			87.9			41.5			43.8	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	58.1	12.6	44.6	15.6	77.2	12.2	45.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	10.8	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	10.8	18.9	8.0	41.3	11.6	25.5	6.7	41.7
Green Ext Time (p_c), s	0.0	4.7	0.1	0.0	0.1	6.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	83.4
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	404	185	38	338	122	261	1083	90	125	824	28
Future Volume (veh/h)	16	404	185	38	338	122	261	1083	90	125	824	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	439	201	41	367	133	284	1177	98	136	896	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	64	482	408	109	530	449	304	1458	121	172	1283	43
Arrive On Green	0.04	0.26	0.26	0.06	0.28	0.28	0.17	0.43	0.43	0.10	0.36	0.36
Sat Flow, veh/h	1795	1885	1596	1795	1885	1598	1810	3368	280	1810	3561	119
Grp Volume(v), veh/h	17	439	201	41	367	133	284	630	645	136	454	472
Grp Sat Flow(s),veh/h/ln	1795	1885	1596	1795	1885	1598	1810	1805	1843	1810	1805	1875
Q Serve(g_s), s	1.2	28.2	13.4	2.7	21.7	8.2	19.4	38.0	38.2	9.2	26.9	26.9
Cycle Q Clear(g_c), s	1.2	28.2	13.4	2.7	21.7	8.2	19.4	38.0	38.2	9.2	26.9	26.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.06
Lane Grp Cap(c), veh/h	64	482	408	109	530	449	304	782	798	172	650	675
V/C Ratio(X)	0.27	0.91	0.49	0.38	0.69	0.30	0.93	0.81	0.81	0.79	0.70	0.70
Avail Cap(c_a), veh/h	158	593	502	158	593	502	304	782	798	232	650	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	58.7	45.1	39.6	56.4	40.1	35.3	51.3	30.9	30.9	55.3	34.2	34.2
Incr Delay (d2), s/veh	0.8	15.3	0.6	0.8	3.1	0.4	34.3	8.7	8.6	6.9	4.8	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	14.8	5.2	1.2	10.2	3.2	11.4	17.5	17.9	4.4	12.2	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	60.4	40.2	57.2	43.3	35.6	85.6	39.6	39.6	62.2	39.0	38.8
LnGrp LOS	E	E	D	E	D	D	F	D	D	E	D	D
Approach Vol, veh/h		657			541			1559			1062	
Approach Delay, s/veh		54.2			42.4			47.9			41.9	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	50.7	8.5	40.8	15.9	59.8	11.6	37.7
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	11.0	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	11.4	28.9	3.2	23.7	11.2	40.2	4.7	30.2
Green Ext Time (p_c), s	0.0	2.5	0.0	2.3	0.1	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	46.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
13: SR-168 WB Ramps & Herndon Avenue

Tract Map 6
Cumulative Year (2046) NP - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1846	609	0	2287	779	0	0	0	77	0	406
Future Volume (veh/h)	0	1846	609	0	2287	779	0	0	0	77	0	406
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885				1885	0	1885
Adj Flow Rate, veh/h	0	1865	615	0	2561	0				78	0	410
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	1	1	0	1	1				1	0	1
Cap, veh/h	0	3322	818	0	3862					664	0	536
Arrive On Green	0.00	0.51	0.51	0.00	0.51	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	6749	1598	0	7541	1598				3483	0	2812
Grp Volume(v), veh/h	0	1865	615	0	2561	0				78	0	410
Grp Sat Flow(s),veh/h/ln	0	1621	1598	0	1885	1598				1742	0	1406
Q Serve(g_s), s	0.0	26.0	40.3	0.0	33.1	0.0				2.4	0.0	18.2
Cycle Q Clear(g_c), s	0.0	26.0	40.3	0.0	33.1	0.0				2.4	0.0	18.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3322	818	0	3862					664	0	536
V/C Ratio(X)	0.00	0.56	0.75	0.00	0.66					0.12	0.00	0.77
Avail Cap(c_a), veh/h	0	3341	823	0	3885					1317	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.83	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.0	25.5	0.0	23.8	0.0				44.2	0.0	50.6
Incr Delay (d2), s/veh	0.0	0.7	6.3	0.0	0.8	0.0				0.2	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	15.7	0.0	14.1	0.0				1.1	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.7	31.8	0.0	24.5	0.0				44.4	0.0	56.2
LnGrp LOS	A	C	C	A	C					D	A	E
Approach Vol, veh/h		2480			2561						488	
Approach Delay, s/veh		25.0			24.5						54.3	
Approach LOS		C			C						D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	74.4	32.5	74.4
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	68.0	49.9	68.0
Max Q Clear Time (g_c+I1), s	42.3	20.2	35.1
Green Ext Time (p_c), s	25.2	4.9	32.5

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1526	397	0	2278	214	788	0	935	0	0	0
Future Volume (veh/h)	0	1526	397	0	2278	214	788	0	935	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885	1885	0	1885			
Adj Flow Rate, veh/h	0	1573	0	0	2348	221	812	0	964			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	1	0	1	1	1	0	1			
Cap, veh/h	0	2930		0	4346	909	1651	0	917			
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57	0.33	0.00	0.33			
Sat Flow, veh/h	0	5316	1598	0	7993	1598	5063	0	2812			
Grp Volume(v), veh/h	0	1573	0	0	2348	221	812	0	964			
Grp Sat Flow(s),veh/h/ln	0	1716	1598	0	1527	1598	1688	0	1406			
Q Serve(g_s), s	0.0	24.7	0.0	0.0	24.9	9.0	16.7	0.0	42.4			
Cycle Q Clear(g_c), s	0.0	24.7	0.0	0.0	24.9	9.0	16.7	0.0	42.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2930		0	4346	909	1651	0	917			
V/C Ratio(X)	0.00	0.54		0.00	0.54	0.24	0.49	0.00	1.05			
Avail Cap(c_a), veh/h	0	2930		0	4346	909	1651	0	917			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.92	0.00	0.00	0.16	0.16	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	17.4	0.0	0.0	17.4	14.0	35.2	0.0	43.8			
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.1	0.1	1.0	0.0	44.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	9.2	0.0	0.0	8.1	3.1	7.0	0.0	20.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.0	0.0	0.0	17.5	14.1	36.2	0.0	87.9			
LnGrp LOS	A	B		A	B	B	D	A	F			
Approach Vol, veh/h		1573			2569			1776				
Approach Delay, s/veh		18.0			17.2			64.3				
Approach LOS		B			B			E				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		80.8				80.8		49.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		74.0				74.0		42.4				
Max Q Clear Time (g_c+I1), s		26.7				26.9		44.4				
Green Ext Time (p_c), s		38.1				46.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		31.5
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	613	1499	349	326	1423	202	609	586	320	325	361	460
Future Volume (veh/h)	613	1499	349	326	1423	202	609	586	320	325	361	460
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	639	1561	364	340	1482	210	634	610	333	339	376	479
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	562	1560	484	389	1305	405	673	1152	527	390	1305	703
Arrive On Green	0.16	0.30	0.30	0.11	0.25	0.25	0.19	0.33	0.33	0.11	0.25	0.25
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1581	3483	5147	2773
Grp Volume(v), veh/h	639	1561	364	340	1482	210	634	610	333	339	376	479
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1581	1742	1716	1387
Q Serve(g_s), s	25.0	47.0	31.9	14.9	39.3	17.5	27.6	22.1	27.6	14.8	9.1	24.2
Cycle Q Clear(g_c), s	25.0	47.0	31.9	14.9	39.3	17.5	27.6	22.1	27.6	14.8	9.1	24.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	562	1560	484	389	1305	405	673	1152	527	390	1305	703
V/C Ratio(X)	1.14	1.00	0.75	0.87	1.14	0.52	0.94	0.53	0.63	0.87	0.29	0.68
Avail Cap(c_a), veh/h	562	1560	484	562	1305	405	679	1152	527	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	54.0	48.7	67.8	57.8	49.7	61.8	41.8	43.7	67.7	46.6	52.2
Incr Delay (d2), s/veh	75.3	18.0	6.6	7.7	70.9	4.7	21.2	1.7	5.7	2.5	0.6	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	22.3	13.3	6.9	25.2	7.4	14.1	9.6	11.4	6.6	3.9	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	140.3	72.0	55.3	75.5	128.8	54.4	83.0	43.6	49.3	70.2	47.1	57.5
LnGrp LOS	F	F	E	E	F	D	F	D	D	E	D	E
Approach Vol, veh/h		2564			2032			1577			1194	
Approach Delay, s/veh		86.7			112.2			60.6			57.8	
Approach LOS		F			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	45.3	22.3	57.3	22.3	53.0	34.7	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	27.0	41.3	16.8	29.6	16.9	49.0	29.6	26.2
Green Ext Time (p_c), s	0.0	0.0	0.5	2.8	0.4	0.0	0.1	4.0

Intersection Summary	
HCM 6th Ctrl Delay	83.5
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	225	16	230	115	9
Future Vol, veh/h	222	225	16	230	115	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	236	239	17	245	122	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	475	0	635	356
Stage 1	-	-	-	-	356	-
Stage 2	-	-	-	-	279	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1098	-	446	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1098	-	438	693
Mov Cap-2 Maneuver	-	-	-	-	438	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	450	-	-	1098	-
HCM Lane V/C Ratio	0.293	-	-	0.016	-
HCM Control Delay (s)	16.3	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	9	0	105	0	11	89	249	8	0
Future Vol, veh/h	0	0	0	9	0	105	0	11	89	249	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	0	114	0	12	97	271	9	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	669	660	9	612	612	61	9	0	0	109	0	0
Stage 1	551	551	-	61	61	-	-	-	-	-	-	-
Stage 2	118	109	-	551	551	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	374	386	1079	408	411	1010	1624	-	-	1494	-	-
Stage 1	522	519	-	955	848	-	-	-	-	-	-	-
Stage 2	891	809	-	522	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	285	316	1079	351	336	1010	1624	-	-	1494	-	-
Mov Cap-2 Maneuver	285	316	-	351	336	-	-	-	-	-	-	-
Stage 1	522	425	-	955	848	-	-	-	-	-	-	-
Stage 2	790	809	-	427	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.8	0	7.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1624	-	-	-	880	1494	-	-
HCM Lane V/C Ratio	-	-	-	-	0.141	0.181	-	-
HCM Control Delay (s)	0	-	-	0	9.8	7.9	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0.7	-	-

Intersection	
Intersection Delay, s/veh	1124.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	428	901	162	64	920	334	182	300	76	168	187	386
Future Vol, veh/h	428	901	162	64	920	334	182	300	76	168	187	386
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	455	959	172	68	979	355	194	319	81	179	199	411
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1523.5	1284.5	407.1	577.4
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	29%	5%	23%
Vol Thru, %	54%	60%	70%	25%
Vol Right, %	14%	11%	25%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	558	1491	1318	741
LT Vol	182	428	64	168
Through Vol	300	901	920	187
RT Vol	76	162	334	386
Lane Flow Rate	594	1586	1402	788
Geometry Grp	1	1	1	1
Degree of Util (X)	1.58	4.232	3.683	2.043
Departure Headway (Hd)	47.775	29.023	31.876	38.658
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	83	143	140	102
Service Time	45.775	27.023	29.876	36.658
HCM Lane V/C Ratio	7.157	11.091	10.014	7.725
HCM Control Delay	407.1	1523.5	1284.5	577.4
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	10	53.8	41.6	16.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	601	161	72	669	282	319	370	108	155	241	38
Future Volume (veh/h)	54	601	161	72	669	282	319	370	108	155	241	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	57	633	169	76	704	297	336	389	114	163	254	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	87	794	354	96	427	362	356	923	783	186	628	99
Arrive On Green	0.05	0.22	0.22	0.05	0.23	0.23	0.20	0.49	0.49	0.10	0.40	0.40
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1589	250
Grp Volume(v), veh/h	57	633	169	76	704	297	336	389	114	163	0	294
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1840
Q Serve(g_s), s	4.7	25.1	13.8	6.3	34.0	26.5	27.7	19.9	5.9	13.4	0.0	17.3
Cycle Q Clear(g_c), s	4.7	25.1	13.8	6.3	34.0	26.5	27.7	19.9	5.9	13.4	0.0	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	87	794	354	96	427	362	356	923	783	186	0	727
V/C Ratio(X)	0.66	0.80	0.48	0.79	1.65	0.82	0.94	0.42	0.15	0.87	0.00	0.40
Avail Cap(c_a), veh/h	371	812	362	371	427	362	371	923	783	371	0	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.1	55.2	50.8	70.2	58.0	55.1	59.3	24.6	21.0	66.2	0.0	32.7
Incr Delay (d2), s/veh	3.1	6.1	1.9	5.5	301.7	15.0	31.2	1.4	0.4	5.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	11.9	5.7	3.0	51.5	12.0	15.4	9.0	2.3	6.3	0.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	61.3	52.7	75.7	359.7	70.1	90.5	26.0	21.4	71.2	0.0	34.3
LnGrp LOS	E	E	D	E	F	E	F	C	C	E	A	C
Approach Vol, veh/h		859			1077			839			457	
Approach Delay, s/veh		60.4			259.8			51.2			47.5	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	65.0	11.3	40.0	19.6	79.2	12.0	39.3
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	9.8	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	29.7	19.3	6.7	36.0	15.4	21.9	8.3	27.1
Green Ext Time (p_c), s	0.1	1.3	0.1	0.0	0.2	2.0	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	122.6
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	2	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1635	-	1026	1090
Stage 1	-	-	-	-	1028	-
Stage 2	-	-	-	-	1028	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1635	-	1026	1090
Mov Cap-2 Maneuver	-	-	-	-	1026	-
Stage 1	-	-	-	-	1028	-
Stage 2	-	-	-	-	1028	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1635	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	124	241	0
Future Vol, veh/h	0	0	0	124	241	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	135	262	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	397	262	262	0	-	0
Stage 1	262	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	612	782	1314	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	612	782	1314	-	-	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	896	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1314	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	124	241	0
Future Vol, veh/h	0	0	0	124	241	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	135	262	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	397	262	262	0	-	0
Stage 1	262	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	612	782	1314	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	612	782	1314	-	-	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	896	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1314	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	116	257	0
Future Vol, veh/h	0	0	0	116	257	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	126	279	0

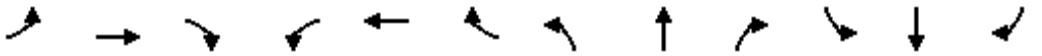
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	405	279	279	0	-	0
Stage 1	279	-	-	-	-	-
Stage 2	126	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	606	765	1295	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	606	765	1295	-	-	-
Mov Cap-2 Maneuver	606	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	905	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map 6
Cumulative Year (2046) WP - AM Pk Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	93	235	42	447	77	455	452	28	65	615	90
Future Volume (veh/h)	23	93	235	42	447	77	455	452	28	65	615	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	25	101	255	46	486	84	495	491	30	71	668	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	65	529	448	87	540	457	353	1654	738	98	2083	647
Arrive On Green	0.04	0.28	0.28	0.05	0.29	0.29	0.03	0.15	0.15	0.06	0.41	0.41
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	25	101	255	46	486	84	495	491	30	71	668	98
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	1.8	5.5	18.5	3.4	33.7	5.4	13.7	16.4	2.2	5.3	12.0	5.3
Cycle Q Clear(g_c), s	1.8	5.5	18.5	3.4	33.7	5.4	13.7	16.4	2.2	5.3	12.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	529	448	87	540	457	353	1654	738	98	2083	647
V/C Ratio(X)	0.39	0.19	0.57	0.53	0.90	0.18	1.40	0.30	0.04	0.72	0.32	0.15
Avail Cap(c_a), veh/h	205	617	523	211	612	519	353	1654	738	194	2083	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	36.9	41.6	62.7	46.2	36.1	65.2	37.8	31.7	62.8	27.2	25.2
Incr Delay (d2), s/veh	1.4	0.4	2.7	1.9	16.3	0.3	194.2	0.4	0.1	3.7	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	7.6	1.6	18.1	2.1	15.9	7.9	0.9	2.4	4.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	37.3	44.3	64.6	62.5	36.4	259.5	38.2	31.8	66.5	27.6	25.7
LnGrp LOS	E	D	D	E	E	D	F	D	C	E	C	C
Approach Vol, veh/h		381			616			1016			837	
Approach Delay, s/veh		43.8			59.1			145.8			30.7	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	60.8	9.5	44.8	12.7	68.0	10.6	43.7
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	15.7	14.0	3.8	35.7	7.3	18.4	5.4	20.5
Green Ext Time (p_c), s	0.0	10.4	0.0	3.3	0.0	6.4	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	79.6
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	157	250	99	365	171	137	811	20	59	808	79
Future Volume (veh/h)	72	157	250	99	365	171	137	811	20	59	808	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	78	171	272	108	397	186	149	882	22	64	878	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	100	591	501	131	385	180	173	2003	622	97	1796	543
Arrive On Green	0.06	0.32	0.32	0.07	0.32	0.32	0.10	0.39	0.39	0.11	0.70	0.70
Sat Flow, veh/h	1781	1870	1585	1767	1195	560	1781	5106	1585	1795	5147	1557
Grp Volume(v), veh/h	78	171	272	108	0	583	149	882	22	64	878	86
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1767	0	1755	1781	1702	1585	1795	1716	1557
Q Serve(g_s), s	5.8	9.3	19.1	8.1	0.0	43.5	11.1	17.1	1.2	4.6	10.6	2.5
Cycle Q Clear(g_c), s	5.8	9.3	19.1	8.1	0.0	43.5	11.1	17.1	1.2	4.6	10.6	2.5
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	591	501	131	0	565	173	2003	622	97	1796	543
V/C Ratio(X)	0.78	0.29	0.54	0.82	0.00	1.03	0.86	0.44	0.04	0.66	0.49	0.16
Avail Cap(c_a), veh/h	182	603	511	202	0	565	194	2003	622	196	1796	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.85	0.85	0.85	0.91	0.91	0.91
Uniform Delay (d), s/veh	62.9	34.8	38.1	61.6	0.0	45.8	60.1	30.1	25.3	59.0	14.9	13.6
Incr Delay (d2), s/veh	4.9	0.3	1.3	8.5	0.0	46.1	23.0	0.6	0.1	2.6	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.3	7.7	4.0	0.0	26.0	6.1	7.2	0.5	2.1	3.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	35.1	39.4	70.1	0.0	91.8	83.1	30.7	25.4	61.7	15.7	14.2
LnGrp LOS	E	D	D	E	A	F	F	C	C	E	B	B
Approach Vol, veh/h		521			691			1053			1028	
Approach Delay, s/veh		42.3			88.4			38.0			18.5	
Approach LOS		D			F			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	52.8	13.8	50.0	12.6	58.7	14.6	49.2
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	13.1	12.6	7.8	45.5	6.6	19.1	10.1	21.1
Green Ext Time (p_c), s	0.0	14.7	0.0	0.0	0.0	11.8	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	419	286	311	645	254	390	916	321	263	1334	211
Future Volume (veh/h)	112	419	286	311	645	254	390	916	321	263	1334	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	122	455	311	338	701	276	424	996	349	286	1450	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	1	1	1
Cap, veh/h	189	872	389	384	1097	489	442	1892	587	336	1755	537
Arrive On Green	0.05	0.25	0.25	0.11	0.31	0.31	0.13	0.37	0.37	0.10	0.34	0.34
Sat Flow, veh/h	3456	3554	1585	3428	3526	1571	3428	5066	1571	3483	5147	1575
Grp Volume(v), veh/h	122	455	311	338	701	276	424	996	349	286	1450	229
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1571	1714	1689	1571	1742	1716	1575
Q Serve(g_s), s	5.0	16.1	26.7	14.1	24.8	21.3	17.8	22.2	25.9	11.7	37.5	16.3
Cycle Q Clear(g_c), s	5.0	16.1	26.7	14.1	24.8	21.3	17.8	22.2	25.9	11.7	37.5	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	872	389	384	1097	489	442	1892	587	336	1755	537
V/C Ratio(X)	0.64	0.52	0.80	0.88	0.64	0.56	0.96	0.53	0.59	0.85	0.83	0.43
Avail Cap(c_a), veh/h	462	1073	479	430	1097	489	442	1892	587	449	1755	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	67.1	47.3	51.3	63.4	42.9	41.7	62.8	35.4	36.6	64.5	43.8	36.8
Incr Delay (d2), s/veh	1.4	1.1	10.8	1.8	0.1	0.2	32.1	1.1	4.4	7.6	3.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.3	11.8	6.3	10.9	8.3	9.8	9.4	10.7	5.6	16.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.5	48.5	62.1	65.2	43.1	41.9	94.9	36.5	41.0	72.1	47.7	38.9
LnGrp LOS	E	D	E	E	D	D	F	D	D	E	D	D
Approach Vol, veh/h		888			1315			1769			1965	
Approach Delay, s/veh		56.0			48.5			51.4			50.2	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	55.1	13.5	51.3	20.3	59.9	23.1	41.8
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	19.8	39.5	7.0	26.8	13.7	27.9	16.1	28.7
Green Ext Time (p_c), s	0.0	0.0	0.1	7.2	0.3	9.3	0.2	6.8

Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	18.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	2	147	0	50	0	440	244	0	0	293	29
Future Vol, veh/h	5	2	147	0	50	0	440	244	0	0	293	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	5	2	160	0	54	0	478	265	0	0	318	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1582	1555	334	1636	1571	265	350	0	0	265	0	0
Stage 1	334	334	-	1221	1221	-	-	-	-	-	-	-
Stage 2	1248	1221	-	415	350	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	88	112	706	81	110	774	1198	-	-	1299	-	-
Stage 1	678	641	-	220	252	-	-	-	-	-	-	-
Stage 2	211	251	-	615	633	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	12	60	706	39	59	774	1198	-	-	1299	-	-
Mov Cap-2 Maneuver	12	60	-	39	59	-	-	-	-	-	-	-
Stage 1	361	641	-	117	134	-	-	-	-	-	-	-
Stage 2	67	134	-	474	633	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	51.5	208.3	6.4	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1198	-	-	234	59	1299	-	-
HCM Lane V/C Ratio	0.399	-	-	0.715	0.921	-	-	-
HCM Control Delay (s)	10	0	-	51.5	208.3	0	-	-
HCM Lane LOS	A	A	-	F	F	A	-	-
HCM 95th %tile Q(veh)	2	-	-	4.8	4.2	0	-	-

Intersection	
Intersection Delay, s/veh	460.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	133	96	43	526	380	115	269	12	166	589	8
Future Vol, veh/h	3	133	96	43	526	380	115	269	12	166	589	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	4	4	4	4	4	4	2	2	2
Mvmt Flow	3	145	104	47	572	413	125	292	13	180	640	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	51.1	676.2	118.6	493.6
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	1%	5%	22%
Vol Thru, %	68%	57%	55%	77%
Vol Right, %	3%	41%	40%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	396	232	949	763
LT Vol	115	3	43	166
Through Vol	269	133	526	589
RT Vol	12	96	380	8
Lane Flow Rate	430	252	1032	829
Geometry Grp	1	1	1	1
Degree of Util (X)	1.047	0.659	2.431	2.008
Departure Headway (Hd)	16.423	18.374	11.016	12.814
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	224	199	340	290
Service Time	14.423	16.374	9.016	10.814
HCM Lane V/C Ratio	1.92	1.266	3.035	2.859
HCM Control Delay	118.6	51.1	676.2	493.6
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	9.9	3.9	63.2	40.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	699	364	152	754	140	218	310	92	331	892	123
Future Volume (veh/h)	88	699	364	152	754	140	218	310	92	331	892	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	760	396	165	820	152	237	337	100	360	970	134
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	147	935	417	191	532	451	262	591	500	288	618	524
Arrive On Green	0.08	0.26	0.26	0.11	0.29	0.29	0.15	0.32	0.32	0.16	0.33	0.33
Sat Flow, veh/h	1795	3582	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	96	760	396	165	820	152	237	337	100	360	970	134
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1767	1856	1572	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.7	25.9	31.7	11.9	37.3	9.9	17.0	19.6	6.0	21.0	42.9	8.0
Cycle Q Clear(g_c), s	6.7	25.9	31.7	11.9	37.3	9.9	17.0	19.6	6.0	21.0	42.9	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	935	417	191	532	451	262	591	500	288	618	524
V/C Ratio(X)	0.65	0.81	0.95	0.87	1.54	0.34	0.91	0.57	0.20	1.25	1.57	0.26
Avail Cap(c_a), veh/h	290	937	418	285	532	451	288	591	500	288	618	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	45.1	47.2	57.1	46.4	36.6	54.6	37.1	32.5	54.5	43.5	31.8
Incr Delay (d2), s/veh	1.4	4.5	26.5	11.4	252.4	0.7	27.2	4.0	0.9	138.4	264.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	12.1	15.6	5.9	54.4	3.9	9.6	9.6	0.1	20.5	65.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	49.6	73.7	68.5	298.7	37.3	81.8	41.1	33.4	192.9	307.7	33.0
LnGrp LOS	E	D	E	E	F	D	F	D	C	F	F	C
Approach Vol, veh/h		1252			1137			674			1464	
Approach Delay, s/veh		58.0			230.4			54.3			254.3	
Approach LOS		E			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.1	48.9	14.7	43.3	25.0	47.0	18.0	39.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	19.0	44.9	8.7	39.3	23.0	21.6	13.9	33.7
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.0	2.0	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	164.2
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	545.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	273	171	211	589	217	118	172	53	164	450	33
Future Vol, veh/h	18	273	171	211	589	217	118	172	53	164	450	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	4	4	4	0	0	0	0	0	0
Mvmt Flow	20	297	186	229	640	236	128	187	58	178	489	36
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	219.2	902.6	120	441.5
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	4%	21%	25%
Vol Thru, %	50%	59%	58%	70%
Vol Right, %	15%	37%	21%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	343	462	1017	647
LT Vol	118	18	211	164
Through Vol	172	273	589	450
RT Vol	53	171	217	33
Lane Flow Rate	373	502	1105	703
Geometry Grp	1	1	1	1
Degree of Util (X)	0.991	1.309	2.926	1.869
Departure Headway (Hd)	21.377	19.316	13.248	15.86
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	175	196	287	239
Service Time	19.377	17.316	11.248	13.86
HCM Lane V/C Ratio	2.131	2.561	3.85	2.941
HCM Control Delay	120	219.2	902.6	441.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	7.8	13.8	69.7	30

Intersection	
Intersection Delay, s/veh	79.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	330	0	36	87	0	455	180	30	826	0
Future Vol, veh/h	0	0	0	330	0	36	87	0	455	180	30	826	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	9	9	0	0	0
Mvmt Flow	0	0	0	359	0	39	95	0	495	196	33	898	0
Number of Lanes	0	0	0	1	0	1	1	0	1	1	1	2	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	71.3	99.1	65.8
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	455	180	330	36	30	413	413
LT Vol	0	0	0	330	0	30	0	0
Through Vol	87	455	0	0	0	0	413	413
RT Vol	0	0	180	0	36	0	0	0
Lane Flow Rate	95	495	196	359	39	33	449	449
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.229	1.219	0.443	0.985	0.095	0.082	1.071	0.858
Departure Headway (Hd)	9.008	9.167	8.437	10.391	9.163	9.556	9.034	7.258
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	401	401	430	352	394	377	404	503
Service Time	6.708	6.867	6.137	8.091	6.863	7.256	6.734	4.958
HCM Lane V/C Ratio	0.237	1.234	0.456	1.02	0.099	0.088	1.111	0.893
HCM Control Delay	14.4	147.5	17.7	77.7	12.8	13.1	95.6	39.8
HCM Lane LOS	B	F	C	F	B	B	F	E
HCM 95th-tile Q	0.9	19.8	2.2	11	0.3	0.3	14.5	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	716	210	317	675	166	117	197	173	159	597	286
Future Volume (veh/h)	110	716	210	317	675	166	117	197	173	159	597	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	120	778	228	345	734	180	127	214	188	173	649	311
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	243	827	368	400	994	443	150	1064	475	588	1382	616
Arrive On Green	0.07	0.23	0.23	0.12	0.28	0.28	0.09	0.31	0.31	0.17	0.40	0.40
Sat Flow, veh/h	3428	3526	1568	3456	3554	1585	1711	3413	1522	3374	3469	1547
Grp Volume(v), veh/h	120	778	228	345	734	180	127	214	188	173	649	311
Grp Sat Flow(s),veh/h/ln	1714	1763	1568	1728	1777	1585	1711	1706	1522	1687	1735	1547
Q Serve(g_s), s	4.7	30.3	18.2	13.7	26.3	12.9	10.2	6.4	13.6	6.2	19.4	21.2
Cycle Q Clear(g_c), s	4.7	30.3	18.2	13.7	26.3	12.9	10.2	6.4	13.6	6.2	19.4	21.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	827	368	400	994	443	150	1064	475	588	1382	616
V/C Ratio(X)	0.49	0.94	0.62	0.86	0.74	0.41	0.85	0.20	0.40	0.29	0.47	0.50
Avail Cap(c_a), veh/h	598	831	370	627	994	443	298	1064	475	588	1382	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.6	52.6	48.0	60.8	45.8	41.0	62.9	35.4	37.8	50.3	31.2	31.7
Incr Delay (d2), s/veh	0.6	18.7	3.7	4.5	3.2	0.9	4.9	0.4	2.4	1.3	1.1	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	15.6	7.5	6.3	12.1	5.2	4.7	2.8	5.4	2.8	8.4	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	71.3	51.7	65.3	49.0	41.9	67.8	35.8	40.2	51.6	32.3	34.6
LnGrp LOS	E	E	D	E	D	D	E	D	D	D	C	C
Approach Vol, veh/h		1126			1259			529			1133	
Approach Delay, s/veh		66.5			52.4			45.1			35.9	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	61.5	15.5	45.1	30.0	49.3	21.8	38.8
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	25.4	33.0
Max Q Clear Time (g_c+I1), s	12.2	23.2	6.7	28.3	8.2	15.6	15.7	32.3
Green Ext Time (p_c), s	0.1	8.1	0.2	3.4	0.3	3.7	0.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	85	234	283	456	980	301
Future Volume (veh/h)	85	234	283	456	980	301
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	254	308	496	1065	327
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	2	2	2	2
Cap, veh/h	329	293	251	2476	1807	806
Arrive On Green	0.18	0.18	0.14	0.70	0.51	0.51
Sat Flow, veh/h	1795	1598	1781	3647	3647	1585
Grp Volume(v), veh/h	92	254	308	496	1065	327
Grp Sat Flow(s),veh/h/ln	1795	1598	1781	1777	1777	1585
Q Serve(g_s), s	3.7	13.1	12.0	4.2	17.9	10.9
Cycle Q Clear(g_c), s	3.7	13.1	12.0	4.2	17.9	10.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	329	293	251	2476	1807	806
V/C Ratio(X)	0.28	0.87	1.22	0.20	0.59	0.41
Avail Cap(c_a), veh/h	530	472	251	2476	1807	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.76	0.76
Uniform Delay (d), s/veh	29.9	33.7	36.5	4.5	14.7	12.9
Incr Delay (d2), s/veh	0.2	5.6	131.2	0.2	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.4	14.3	1.3	6.9	3.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	39.3	167.7	4.7	15.7	14.1
LnGrp LOS	C	D	F	A	B	B
Approach Vol, veh/h	346			804	1392	
Approach Delay, s/veh	36.8			67.2	15.3	
Approach LOS	D			E	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.0	48.5			64.5	20.5
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	12.0	33.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	14.0	19.9			6.2	15.1
Green Ext Time (p_c), s	0.0	8.7			4.7	0.4

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	400	358	69	471	233	161	467	21	115	852	136
Future Volume (veh/h)	71	400	358	69	471	233	161	467	21	115	852	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	77	435	389	75	512	253	175	508	23	125	926	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	103	480	407	103	484	410	198	1688	735	148	1598	695
Arrive On Green	0.06	0.26	0.26	0.06	0.26	0.26	0.11	0.48	0.48	0.08	0.45	0.45
Sat Flow, veh/h	1781	1870	1585	1795	1885	1596	1767	3526	1535	1781	3554	1546
Grp Volume(v), veh/h	77	435	389	75	512	253	175	508	23	125	926	148
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1596	1767	1763	1535	1781	1777	1546
Q Serve(g_s), s	6.4	33.8	36.3	6.2	38.5	21.0	14.6	13.2	1.2	10.4	29.1	8.7
Cycle Q Clear(g_c), s	6.4	33.8	36.3	6.2	38.5	21.0	14.6	13.2	1.2	10.4	29.1	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	480	407	103	484	410	198	1688	735	148	1598	695
V/C Ratio(X)	0.75	0.91	0.96	0.73	1.06	0.62	0.88	0.30	0.03	0.85	0.58	0.21
Avail Cap(c_a), veh/h	368	483	409	323	484	410	365	1688	735	309	1598	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	54.0	54.9	69.5	55.8	49.3	65.6	23.8	20.7	67.8	30.7	25.1
Incr Delay (d2), s/veh	4.1	20.9	33.3	3.6	57.2	3.3	4.6	0.4	0.1	5.0	1.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	18.7	18.2	3.0	26.0	8.8	6.9	5.7	0.5	5.0	12.9	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	74.9	88.2	73.2	113.0	52.6	70.2	24.2	20.7	72.9	32.3	25.8
LnGrp LOS	E	E	F	E	F	D	E	C	C	E	C	C
Approach Vol, veh/h		901			840			706			1199	
Approach Delay, s/veh		80.5			91.2			35.5			35.7	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	72.7	12.6	43.8	16.4	77.1	12.6	43.8
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	16.8	34.7	31.0	34.7	26.0	39.7	27.0	38.7
Max Q Clear Time (g_c+I1), s	10.6	31.1	8.4	40.5	12.4	15.2	8.2	38.3
Green Ext Time (p_c), s	0.2	2.6	0.1	0.0	0.1	5.3	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	59.5
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	292	193	46	419	109	279	523	91	162	1164	63
Future Volume (veh/h)	16	292	193	46	419	109	279	523	91	162	1164	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	17	317	210	50	455	118	303	568	99	176	1265	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	1	1	1
Cap, veh/h	62	435	368	117	502	426	297	1280	222	202	1286	69
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.17	0.43	0.43	0.11	0.37	0.37
Sat Flow, veh/h	1739	1826	1545	1781	1870	1585	1767	2992	520	1795	3452	185
Grp Volume(v), veh/h	17	317	210	50	455	118	303	334	333	176	655	678
Grp Sat Flow(s),veh/h/ln	1739	1826	1545	1781	1870	1585	1767	1763	1749	1795	1791	1847
Q Serve(g_s), s	1.2	20.0	15.0	3.4	29.4	7.4	21.0	16.7	16.8	12.1	45.3	45.5
Cycle Q Clear(g_c), s	1.2	20.0	15.0	3.4	29.4	7.4	21.0	16.7	16.8	12.1	45.3	45.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.10
Lane Grp Cap(c), veh/h	62	435	368	117	502	426	297	754	748	202	667	688
V/C Ratio(X)	0.27	0.73	0.57	0.43	0.91	0.28	1.02	0.44	0.45	0.87	0.98	0.99
Avail Cap(c_a), veh/h	153	574	486	157	588	498	297	754	748	230	667	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	58.7	43.9	42.0	56.1	44.2	36.1	52.0	25.2	25.3	54.6	38.8	38.9
Incr Delay (d2), s/veh	0.9	2.6	0.9	0.9	16.3	0.4	57.6	1.9	1.9	16.1	23.1	23.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	9.4	5.8	1.5	15.8	2.9	14.0	7.4	7.4	6.4	23.8	24.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	46.4	42.9	57.0	60.4	36.5	109.6	27.1	27.2	70.6	61.9	62.1
LnGrp LOS	E	D	D	E	E	D	F	C	C	E	E	E
Approach Vol, veh/h		544			623			970			1509	
Approach Delay, s/veh		45.5			55.6			52.9			63.0	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	52.3	8.5	39.3	18.1	59.2	12.2	35.5
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	21.0	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I2), s	23.0	47.5	3.2	31.4	14.1	18.8	5.4	22.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	4.7	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	56.4
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1236	899	0	1704	933	0	0	0	78	0	787
Future Volume (veh/h)	0	1236	899	0	1704	933	0	0	0	78	0	787
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870				1885	0	1885
Adj Flow Rate, veh/h	0	1315	956	0	1792	0				83	0	837
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	0	2	2				1	0	1
Cap, veh/h	0	4017	989	0	3503					930	0	751
Arrive On Green	0.00	0.62	0.62	0.00	1.00	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	6696	1585	0	5611	3170				3483	0	2812
Grp Volume(v), veh/h	0	1315	956	0	1792	0				83	0	837
Grp Sat Flow(s),veh/h/ln	0	1609	1585	0	1870	1585				1742	0	1406
Q Serve(g_s), s	0.0	12.5	74.2	0.0	0.0	0.0				2.3	0.0	34.7
Cycle Q Clear(g_c), s	0.0	12.5	74.2	0.0	0.0	0.0				2.3	0.0	34.7
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	4017	989	0	3503					930	0	751
V/C Ratio(X)	0.00	0.33	0.97	0.00	0.51					0.09	0.00	1.12
Avail Cap(c_a), veh/h	0	4019	990	0	3505					930	0	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.5	23.1	0.0	0.0	0.0				35.8	0.0	47.7
Incr Delay (d2), s/veh	0.0	0.2	21.5	0.0	0.5	0.0				0.1	0.0	69.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	31.7	0.0	0.1	0.0				1.0	0.0	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.8	44.6	0.0	0.5	0.0				35.9	0.0	116.9
LnGrp LOS	A	B	D	A	A					D	A	F
Approach Vol, veh/h		2271			1792						920	
Approach Delay, s/veh		25.6			0.5						109.6	
Approach LOS		C			A						F	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	88.0	42.0	88.0
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	81.2	34.7	81.2
Max Q Clear Time (g_c+I1), s	76.2	36.7	2.0
Green Ext Time (p_c), s	4.9	0.0	66.6

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1080	234	0	2151	93	486	0	629	0	0	0
Future Volume (veh/h)	0	1080	234	0	2151	93	486	0	629	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1885	1885	1841	0	1841			
Adj Flow Rate, veh/h	0	1174	0	0	2338	101	528	0	684			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	0	1	1	4	0	4			
Cap, veh/h	0	2985		0	4464	934	1536	0	853			
Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.58	0.31	0.00	0.31			
Sat Flow, veh/h	0	5274	1585	0	7993	1598	4944	0	2745			
Grp Volume(v), veh/h	0	1174	0	0	2338	101	528	0	684			
Grp Sat Flow(s),veh/h/ln	0	1702	1585	0	1527	1598	1648	0	1373			
Q Serve(g_s), s	0.0	16.1	0.0	0.0	23.8	3.6	10.7	0.0	29.7			
Cycle Q Clear(g_c), s	0.0	16.1	0.0	0.0	23.8	3.6	10.7	0.0	29.7			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2985		0	4464	934	1536	0	853			
V/C Ratio(X)	0.00	0.39		0.00	0.52	0.11	0.34	0.00	0.80			
Avail Cap(c_a), veh/h	0	2985		0	4464	934	1536	0	853			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.96	0.00	0.00	0.50	0.50	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	14.6	0.0	0.0	16.2	12.0	34.6	0.0	41.1			
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.2	0.1	0.6	0.0	7.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	6.3	0.0	0.0	8.2	1.3	4.4	0.0	10.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.9	0.0	0.0	16.4	12.1	35.2	0.0	49.0			
LnGrp LOS	A	B		A	B	B	D	A	D			
Approach Vol, veh/h		1174			2439			1212				
Approach Delay, s/veh		14.9			16.2			43.0				
Approach LOS		B			B			D				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		82.8				82.8		47.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		76.0				76.0		40.4				
Max Q Clear Time (g_c+I1), s		18.1				25.8		31.7				
Green Ext Time (p_c), s		34.7				49.1		6.0				

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	936	364	196	1112	186	380	454	158	206	479	752
Future Volume (veh/h)	410	936	364	196	1112	186	380	454	158	206	479	752
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	441	1006	391	211	1196	200	409	488	170	222	515	809
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	486	1972	612	290	1692	525	461	1114	374	315	1305	703
Arrive On Green	0.14	0.39	0.39	0.08	0.33	0.33	0.13	0.30	0.30	0.09	0.25	0.25
Sat Flow, veh/h	3428	5066	1572	3456	5106	1584	3456	3759	1261	3483	5147	2773
Grp Volume(v), veh/h	441	1006	391	211	1196	200	409	440	218	222	515	809
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1584	1728	1702	1615	1742	1716	1387
Q Serve(g_s), s	19.6	23.5	31.3	9.2	31.7	15.0	18.0	16.2	17.0	9.6	12.9	39.3
Cycle Q Clear(g_c), s	19.6	23.5	31.3	9.2	31.7	15.0	18.0	16.2	17.0	9.6	12.9	39.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	486	1972	612	290	1692	525	461	1009	479	315	1305	703
V/C Ratio(X)	0.91	0.51	0.64	0.73	0.71	0.38	0.89	0.44	0.45	0.71	0.39	1.15
Avail Cap(c_a), veh/h	553	1972	612	557	1692	525	669	1009	479	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.5	36.1	38.5	69.3	45.3	39.7	66.0	44.1	44.3	68.5	48.0	57.9
Incr Delay (d2), s/veh	14.2	0.8	4.3	1.3	2.5	2.1	7.7	1.4	3.1	1.1	0.9	83.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	9.9	12.9	4.2	13.9	6.2	8.5	7.1	7.3	4.3	5.7	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.7	36.9	42.7	70.6	47.8	41.8	73.7	45.4	47.4	69.6	48.9	141.5
LnGrp LOS	E	D	D	E	D	D	E	D	D	E	D	F
Approach Vol, veh/h		1838			1607			1067			1546	
Approach Delay, s/veh		48.4			50.0			56.7			100.3	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	57.4	19.0	51.7	18.0	66.3	25.7	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	21.6	33.7	11.6	19.0	11.2	33.3	20.0	41.3
Green Ext Time (p_c), s	0.4	3.4	0.4	2.8	0.3	3.7	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	63.5
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	17.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	166	19	541	225	22
Future Vol, veh/h	261	166	19	541	225	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	284	180	21	588	245	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	464	0	1004	374
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	630	-
Critical Hdwy	-	-	4.14	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1087	-	270	677
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	535	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1087	-	262	677
Mov Cap-2 Maneuver	-	-	-	-	262	-
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	86.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	277	-	-	1087	-
HCM Lane V/C Ratio	0.969	-	-	0.019	-
HCM Control Delay (s)	86.7	-	-	8.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	9.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	104	28	0	202	36	68	26	181	183	3
Future Vol, veh/h	9	0	104	28	0	202	36	68	26	181	183	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	0	113	30	0	220	39	74	28	197	199	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	871	775	201	817	762	88	202	0	0	102	0	0
Stage 1	595	595	-	166	166	-	-	-	-	-	-	-
Stage 2	276	180	-	651	596	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	274	331	845	298	337	976	1382	-	-	1503	-	-
Stage 1	494	496	-	841	765	-	-	-	-	-	-	-
Stage 2	735	754	-	461	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	184	273	845	224	278	976	1382	-	-	1503	-	-
Mov Cap-2 Maneuver	184	273	-	224	278	-	-	-	-	-	-	-
Stage 1	479	423	-	816	742	-	-	-	-	-	-	-
Stage 2	553	731	-	340	422	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	13.1	2.1	3.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	657	693	1503	-	-
HCM Lane V/C Ratio	0.028	-	-	0.187	0.361	0.131	-	-
HCM Control Delay (s)	7.7	0	-	11.7	13.1	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	1.6	0.5	-	-

Intersection	
Intersection Delay, s/veh	803.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	222	774	204	69	750	99	115	86	51	332	441	479
Future Vol, veh/h	222	774	204	69	750	99	115	86	51	332	441	479
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	1	1	1	0	0	0	0	0	0
Mvmt Flow	227	790	208	70	765	101	117	88	52	339	450	489
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	929.9	627.9	99.3	951.7
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	46%	18%	8%	27%
Vol Thru, %	34%	65%	82%	35%
Vol Right, %	20%	17%	11%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	252	1200	918	1252
LT Vol	115	222	69	332
Through Vol	86	774	750	441
RT Vol	51	204	99	479
Lane Flow Rate	257	1224	937	1278
Geometry Grp	1	1	1	1
Degree of Util (X)	0.683	2.952	2.253	3.022
Departure Headway (Hd)	38.041	19.685	22.755	15.78
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	98	196	169	243
Service Time	36.041	17.685	20.755	13.78
HCM Lane V/C Ratio	2.622	6.245	5.544	5.259
HCM Control Delay	99.3	929.9	627.9	951.7
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	3.4	48.8	29.3	61.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	703	282	75	469	386	217	100	40	342	534	32
Future Volume (veh/h)	53	703	282	75	469	386	217	100	40	342	534	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	55	732	294	78	489	402	226	104	42	356	556	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	85	795	354	98	431	366	249	717	608	362	774	46
Arrive On Green	0.05	0.22	0.22	0.05	0.23	0.23	0.14	0.38	0.38	0.21	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	1870	1585	1781	1870	1585	1753	1720	102
Grp Volume(v), veh/h	55	732	294	78	489	402	226	104	42	356	0	589
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1870	1585	1753	0	1822
Q Serve(g_s), s	4.5	30.2	26.5	6.5	34.6	34.6	18.7	5.4	2.5	30.3	0.0	39.4
Cycle Q Clear(g_c), s	4.5	30.2	26.5	6.5	34.6	34.6	18.7	5.4	2.5	30.3	0.0	39.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	85	795	354	98	431	366	249	717	608	362	0	820
V/C Ratio(X)	0.64	0.92	0.83	0.80	1.13	1.10	0.91	0.15	0.07	0.98	0.00	0.72
Avail Cap(c_a), veh/h	368	806	359	368	431	366	368	717	608	362	0	820
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.1	56.9	55.5	70.1	57.7	57.7	63.5	30.2	29.3	59.2	0.0	33.5
Incr Delay (d2), s/veh	3.0	16.2	16.0	5.5	85.1	76.6	15.0	0.4	0.2	42.4	0.0	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	15.4	12.2	3.1	26.6	21.6	9.6	2.6	1.0	17.7	0.0	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.2	73.1	71.5	75.5	142.8	134.3	78.6	30.6	29.5	101.6	0.0	38.9
LnGrp LOS	E	E	E	E	F	F	E	C	C	F	A	D
Approach Vol, veh/h		1081			969			372			945	
Approach Delay, s/veh		72.7			133.9			59.6			62.5	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	73.2	11.2	40.6	35.0	63.2	12.2	39.5
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	31.0	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	20.7	41.4	6.5	36.6	32.3	7.4	8.5	32.2
Green Ext Time (p_c), s	0.2	0.0	0.1	0.0	0.0	0.7	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	86.0
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	0	0	3	0	0
Future Vol, veh/h	9	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	0	0	3	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3	2	0	0	3	0
Stage 1	2	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1025	1088	-	-	1632	-
Stage 1	1026	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1025	1088	-	-	1632	-
Mov Cap-2 Maneuver	1025	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1025	1632	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	0	3	11	0	9
Future Vol, veh/h	31	0	3	11	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	0	3	12	0	10

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	19	9	0	0	15	0
Stage 1	9	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1004	1079	-	-	1616	-
Stage 1	1019	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1004	1079	-	-	1616	-
Mov Cap-2 Maneuver	1004	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1018	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1004	1616	-
HCM Lane V/C Ratio	-	-	0.034	-	-
HCM Control Delay (s)	-	-	8.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	0	25	14	0	74
Future Vol, veh/h	40	0	25	14	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	0	27	15	0	80

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	43	0	112	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1579	-	890	1033
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	959	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1579	-	875	1033
Mov Cap-2 Maneuver	-	-	-	-	875	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	943	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1033	-	-	1579	-
HCM Lane V/C Ratio	0.078	-	-	0.017	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	55	19	240	183	2
Future Vol, veh/h	6	55	19	240	183	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	60	21	261	199	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	503	200	201	0	-	0
Stage 1	200	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	532	846	1383	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	522	846	1383	-	-	-
Mov Cap-2 Maneuver	522	-	-	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1383	-	797	-	-
HCM Lane V/C Ratio	0.015	-	0.083	-	-
HCM Control Delay (s)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	58	20	253	236	2
Future Vol, veh/h	6	58	20	253	236	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	63	22	275	257	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	577	258	259	0	-	0
Stage 1	258	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	482	786	1317	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	472	786	1317	-	-	-
Mov Cap-2 Maneuver	472	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1317	-	740	-	-
HCM Lane V/C Ratio	0.017	-	0.094	-	-
HCM Control Delay (s)	7.8	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	61	21	258	306	2
Future Vol, veh/h	6	61	21	258	306	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	66	23	280	333	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	660	334	335	0	-	0
Stage 1	334	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	431	712	1236	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	736	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	422	712	1236	-	-	-
Mov Cap-2 Maneuver	422	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	736	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1236	-	671	-	-
HCM Lane V/C Ratio	0.018	-	0.109	-	-
HCM Control Delay (s)	8	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	125	196	17	103	56	176	626	73	67	490	12
Future Volume (veh/h)	9	125	196	17	103	56	176	626	73	67	490	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	136	213	18	112	61	191	680	79	73	533	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	316	267	52	327	277	242	2140	954	100	2943	913
Arrive On Green	0.02	0.17	0.17	0.03	0.17	0.17	0.09	0.79	0.79	0.06	0.57	0.57
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	136	213	18	112	61	191	680	79	73	533	13
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	8.8	17.4	1.3	7.1	4.5	7.2	7.2	1.5	5.4	6.7	0.5
Cycle Q Clear(g_c), s	0.7	8.8	17.4	1.3	7.1	4.5	7.2	7.2	1.5	5.4	6.7	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	316	267	52	327	277	242	2140	954	100	2943	913
V/C Ratio(X)	0.30	0.43	0.80	0.35	0.34	0.22	0.79	0.32	0.08	0.73	0.18	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	356	2140	954	196	2943	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	50.3	53.9	64.3	48.9	47.8	60.3	6.6	6.0	62.8	13.8	12.5
Incr Delay (d2), s/veh	1.9	2.2	11.9	1.5	1.1	0.7	3.8	0.4	0.2	3.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.3	7.8	0.6	3.4	1.8	3.2	2.4	0.6	2.5	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	52.5	65.8	65.8	49.9	48.5	64.1	7.0	6.1	66.6	13.9	12.5
LnGrp LOS	E	D	E	E	D	D	E	A	A	E	B	B
Approach Vol, veh/h		359			191			950			619	
Approach Delay, s/veh		60.8			51.0			18.4			20.1	
Approach LOS		E			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	82.9	7.1	29.4	12.8	85.7	7.9	28.6
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	9.2	8.7	2.7	9.1	7.4	9.2	3.3	19.4
Green Ext Time (p_c), s	0.1	8.1	0.0	1.5	0.0	11.4	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
2: Willow Avenue & Behymer Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	121	134	128	142	52	179	785	180	118	701	13
Future Volume (veh/h)	13	121	134	128	142	52	179	785	180	118	701	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	14	132	146	139	154	57	195	853	196	128	762	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	1	1	1
Cap, veh/h	44	216	183	163	222	82	197	2841	882	150	2689	815
Arrive On Green	0.02	0.11	0.11	0.09	0.17	0.17	0.11	0.55	0.55	0.17	1.00	1.00
Sat Flow, veh/h	1810	1900	1610	1795	1312	486	1810	5187	1610	1795	5147	1560
Grp Volume(v), veh/h	14	132	146	139	0	211	195	853	196	128	762	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	0	1798	1810	1729	1610	1795	1716	1560
Q Serve(g_s), s	1.0	8.9	11.9	10.3	0.0	14.9	14.5	12.0	8.5	9.3	0.0	0.0
Cycle Q Clear(g_c), s	1.0	8.9	11.9	10.3	0.0	14.9	14.5	12.0	8.5	9.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	216	183	163	0	303	197	2841	882	150	2689	815
V/C Ratio(X)	0.32	0.61	0.80	0.85	0.00	0.70	0.99	0.30	0.22	0.85	0.28	0.02
Avail Cap(c_a), veh/h	185	612	519	205	0	579	197	2841	882	196	2689	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.37	0.37	0.37	0.97	0.97	0.97
Uniform Delay (d), s/veh	64.8	57.0	58.3	60.5	0.0	52.8	60.1	16.5	15.7	55.4	0.0	0.0
Incr Delay (d2), s/veh	1.5	3.3	9.1	19.9	0.0	6.3	36.2	0.1	0.2	19.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.4	5.3	5.6	0.0	7.3	8.5	4.5	3.1	4.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	60.3	67.4	80.3	0.0	59.1	96.2	16.6	15.9	74.4	0.3	0.0
LnGrp LOS	E	E	E	F	A	E	F	B	B	E	A	A
Approach Vol, veh/h		292			350			1244			904	
Approach Delay, s/veh		64.1			67.5			29.0			10.8	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	76.2	9.5	29.3	16.6	79.6	16.9	21.9
Change Period (Y+Rc), s	5.3	5.7	6.2	6.5	5.3	5.7	4.6	6.5
Max Green Setting (Gmax), s	14.7	39.3	13.8	43.5	14.7	39.3	15.4	43.5
Max Q Clear Time (g_c+I1), s	16.9	2.0	3.0	16.9	11.3	14.0	12.3	13.9
Green Ext Time (p_c), s	0.0	13.0	0.0	2.4	0.0	14.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
3: Willow Avenue & Shepherd Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	719	387	357	621	318	293	1451	495	344	1051	207
Future Volume (veh/h)	265	719	387	357	621	318	293	1451	495	344	1051	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	282	765	412	380	661	338	312	1544	527	366	1118	220
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	333	1051	469	425	1175	524	361	1542	478	412	1609	492
Arrive On Green	0.09	0.29	0.29	0.12	0.33	0.33	0.10	0.30	0.30	0.12	0.31	0.31
Sat Flow, veh/h	3510	3610	1610	3510	3610	1609	3510	5187	1609	3483	5147	1574
Grp Volume(v), veh/h	282	765	412	380	661	338	312	1544	527	366	1118	220
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1609	1755	1729	1609	1742	1716	1574
Q Serve(g_s), s	11.5	27.6	35.3	15.5	21.9	26.0	12.7	43.1	43.1	15.0	27.7	16.2
Cycle Q Clear(g_c), s	11.5	27.6	35.3	15.5	21.9	26.0	12.7	43.1	43.1	15.0	27.7	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	1051	469	425	1175	524	361	1542	478	412	1609	492
V/C Ratio(X)	0.85	0.73	0.88	0.89	0.56	0.65	0.86	1.00	1.10	0.89	0.69	0.45
Avail Cap(c_a), veh/h	470	1090	486	441	1175	524	453	1542	478	449	1609	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	64.6	46.2	49.0	62.8	40.4	41.7	64.0	51.0	51.0	63.0	43.8	39.8
Incr Delay (d2), s/veh	7.2	3.2	17.9	2.3	0.1	0.3	11.4	23.3	72.0	16.0	2.3	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	12.7	16.3	6.9	9.5	10.2	6.1	21.3	26.5	7.4	11.7	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.8	49.4	66.8	65.1	40.4	42.0	75.4	74.2	122.9	79.0	46.1	42.5
LnGrp LOS	E	D	E	E	D	D	E	F	F	E	D	D
Approach Vol, veh/h		1459			1379			2383			1704	
Approach Delay, s/veh		58.7			47.6			85.2			52.7	
Approach LOS		E			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	51.0	19.3	53.4	23.5	48.8	24.3	48.4
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	43.8	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	14.7	29.7	13.5	28.0	17.0	45.1	17.5	37.3
Green Ext Time (p_c), s	0.2	7.9	0.3	6.3	0.1	0.0	0.1	4.9

Intersection Summary	
HCM 6th Ctrl Delay	64.1
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	2	158	0	2	0	176	258	37	0	275	30
Future Vol, veh/h	70	2	158	0	2	0	176	258	37	0	275	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	76	2	172	0	2	0	191	280	40	0	299	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	999	1018	316	1085	1014	300	332	0	0	320	0	0
Stage 1	316	316	-	682	682	-	-	-	-	-	-	-
Stage 2	683	702	-	403	332	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	224	239	729	194	239	740	1233	-	-	1246	-	-
Stage 1	699	659	-	440	450	-	-	-	-	-	-	-
Stage 2	442	443	-	624	644	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	190	194	729	126	194	740	1233	-	-	1246	-	-
Mov Cap-2 Maneuver	190	194	-	126	194	-	-	-	-	-	-	-
Stage 1	566	659	-	356	365	-	-	-	-	-	-	-
Stage 2	356	359	-	475	644	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.9	23.8	3.2	0
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1233	-	-	386	194	1246	-	-
HCM Lane V/C Ratio	0.155	-	-	0.648	0.011	-	-	-
HCM Control Delay (s)	8.5	0	-	29.9	23.8	0	-	-
HCM Lane LOS	A	A	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	4.4	0	0	-	-

Intersection	
Intersection Delay, s/veh	254.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	374	101	18	218	160	149	430	28	203	254	3
Future Vol, veh/h	7	374	101	18	218	160	149	430	28	203	254	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	0	0	0	1	1	1	1	1	1
Mvmt Flow	8	407	110	20	237	174	162	467	30	221	276	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	226.8	133.3	386.5	215.3
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	1%	5%	44%
Vol Thru, %	71%	78%	55%	55%
Vol Right, %	5%	21%	40%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	607	482	396	460
LT Vol	149	7	18	203
Through Vol	430	374	218	254
RT Vol	28	101	160	3
Lane Flow Rate	660	524	430	500
Geometry Grp	1	1	1	1
Degree of Util (X)	1.766	1.381	1.12	1.347
Departure Headway (Hd)	12.358	13.246	14.275	13.85
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	303	278	258	265
Service Time	10.358	11.246	12.275	11.85
HCM Lane V/C Ratio	2.178	1.885	1.667	1.887
HCM Control Delay	386.5	226.8	133.3	215.3
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	33.6	20	12.4	18.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	1022	218	108	907	211	313	681	154	159	504	108
Future Volume (veh/h)	144	1022	218	108	907	211	313	681	154	159	504	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	155	1099	234	116	975	227	337	732	166	171	542	116
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	181	999	446	151	497	421	290	705	597	197	608	515
Arrive On Green	0.10	0.28	0.28	0.08	0.26	0.26	0.16	0.37	0.37	0.11	0.32	0.32
Sat Flow, veh/h	1795	3582	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	155	1099	234	116	975	227	337	732	166	171	542	116
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1900	1610	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	11.0	36.3	16.1	8.2	34.0	15.8	21.0	48.6	9.4	12.2	35.6	6.9
Cycle Q Clear(g_c), s	11.0	36.3	16.1	8.2	34.0	15.8	21.0	48.6	9.4	12.2	35.6	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	999	446	151	497	421	290	705	597	197	608	515
V/C Ratio(X)	0.86	1.10	0.52	0.77	1.96	0.54	1.16	1.04	0.28	0.87	0.89	0.23
Avail Cap(c_a), veh/h	290	999	446	292	497	421	290	705	597	290	608	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.49	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	46.9	39.6	58.4	48.0	41.3	54.5	40.7	28.4	56.9	41.9	32.2
Incr Delay (d2), s/veh	3.9	53.1	0.8	3.1	440.2	2.0	104.1	44.2	1.2	12.1	17.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	22.8	6.2	3.8	76.2	6.3	17.6	30.1	3.7	6.2	19.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.5	100.0	40.4	61.5	488.2	43.3	158.6	84.9	29.6	69.1	59.8	33.2
LnGrp LOS	E	F	D	E	F	D	F	F	C	E	E	C
Approach Vol, veh/h		1488			1318			1235			829	
Approach Delay, s/veh		86.6			374.0			97.6			58.0	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	47.9	17.1	40.0	18.3	54.6	14.8	42.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	34.0	21.0	34.0	21.0	34.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	23.0	37.6	13.0	36.0	14.2	50.6	10.2	38.3
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	162.3
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	406.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	360	80	46	243	112	178	522	139	176	384	10
Future Vol, veh/h	11	360	80	46	243	112	178	522	139	176	384	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	391	87	50	264	122	193	567	151	191	417	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	204	152.9	675.4	351.1
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	2%	11%	31%
Vol Thru, %	62%	80%	61%	67%
Vol Right, %	17%	18%	28%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	839	451	401	570
LT Vol	178	11	46	176
Through Vol	522	360	243	384
RT Vol	139	80	112	10
Lane Flow Rate	912	490	436	620
Geometry Grp	1	1	1	1
Degree of Util (X)	2.417	1.295	1.145	1.66
Departure Headway (Hd)	13.1	16.409	17.311	15.724
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	292	225	214	235
Service Time	11.1	14.409	15.311	13.724
HCM Lane V/C Ratio	3.123	2.178	2.037	2.638
HCM Control Delay	675.4	204	152.9	351.1
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	53.3	15.1	11.5	24.7

Intersection	
Intersection Delay, s/veh	277.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	0	0	296	0	9	32	0	947	416	61	526	0
Future Vol, veh/h	0	0	0	296	0	9	32	0	947	416	61	526	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	2	2	0	0	0
Mvmt Flow	0	0	0	322	0	10	35	0	1029	452	66	572	0
Number of Lanes	0	0	0	1	0	1	1	0	1	1	1	2	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	51.1	433.5	23.4
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	100%	100%	0%	0%	0%	0%	100%	100%
Vol Right, %	0%	0%	100%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	947	416	296	9	61	263	263
LT Vol	0	0	0	296	0	61	0	0
Through Vol	32	947	0	0	0	0	263	263
RT Vol	0	0	416	0	9	0	0	0
Lane Flow Rate	35	1029	452	322	10	66	286	286
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.078	2.313	0.925	0.848	0.023	0.165	0.67	0.535
Departure Headway (Hd)	8.056	8.091	7.367	10.883	9.661	10.09	9.57	7.805
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	453	493	335	373	358	380	466
Service Time	5.801	5.836	5.111	8.583	7.361	7.79	7.27	5.505
HCM Lane V/C Ratio	0.079	2.272	0.917	0.961	0.027	0.184	0.753	0.614
HCM Control Delay	11.5	615.7	51.3	52.3	12.6	14.8	29.7	19.1
HCM Lane LOS	B	F	F	F	B	B	D	C
HCM 95th-tile Q	0.3	77.6	10.9	7.6	0.1	0.6	4.7	3.1

HCM 6th Signalized Intersection Summary
9: Clovis Avenue & Shepherd Avenue

Tract Map 6
Cumulative Year (2046) WP - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	899	163	287	914	147	222	676	366	136	273	161
Future Volume (veh/h)	191	899	163	287	914	147	222	676	366	136	273	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	201	946	172	302	962	155	234	712	385	143	287	169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	254	844	376	357	955	426	258	1172	523	612	1286	574
Arrive On Green	0.07	0.24	0.24	0.10	0.26	0.26	0.14	0.32	0.32	0.17	0.36	0.36
Sat Flow, veh/h	3483	3582	1594	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	201	946	172	302	962	155	234	712	385	143	287	169
Grp Sat Flow(s),veh/h/ln	1742	1791	1594	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	7.9	33.0	12.9	11.8	37.0	11.0	17.8	23.2	29.7	4.9	7.8	10.6
Cycle Q Clear(g_c), s	7.9	33.0	12.9	11.8	37.0	11.0	17.8	23.2	29.7	4.9	7.8	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	844	376	357	955	426	258	1172	523	612	1286	574
V/C Ratio(X)	0.79	1.12	0.46	0.85	1.01	0.36	0.91	0.61	0.74	0.23	0.22	0.29
Avail Cap(c_a), veh/h	607	844	376	637	955	426	315	1172	523	612	1286	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.8	53.5	45.8	61.8	51.5	41.9	59.1	39.8	42.0	49.8	31.5	32.4
Incr Delay (d2), s/veh	2.1	69.6	1.3	2.1	31.0	0.8	20.4	2.0	7.7	0.9	0.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.5	5.1	5.2	20.2	4.3	9.5	10.4	12.5	2.2	3.4	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	123.1	47.1	63.9	82.4	42.7	79.5	41.8	49.6	50.6	31.9	33.7
LnGrp LOS	E	F	D	E	F	D	E	D	D	D	C	C
Approach Vol, veh/h		1319			1419			1331			599	
Approach Delay, s/veh		104.5			74.2			50.7			36.9	
Approach LOS		F			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.6	55.6	15.8	43.0	30.0	51.2	19.8	39.0
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	25.4	33.0
Max Q Clear Time (g_c+I1), s	19.8	12.6	9.9	39.0	6.9	31.7	13.8	35.0
Green Ext Time (p_c), s	0.1	6.2	0.3	0.0	0.2	2.0	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.3
HCM 6th LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	161	108	165	1192	630	77
Future Volume (veh/h)	161	108	165	1192	630	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1900	1900
Adj Flow Rate, veh/h	175	117	179	1296	685	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	0	0
Cap, veh/h	220	196	148	2713	2267	1011
Arrive On Green	0.12	0.12	0.08	0.76	0.63	0.63
Sat Flow, veh/h	1795	1598	1795	3676	3705	1610
Grp Volume(v), veh/h	175	117	179	1296	685	84
Grp Sat Flow(s),veh/h/ln	1795	1598	1795	1791	1805	1610
Q Serve(g_s), s	8.1	5.9	7.0	11.7	7.4	1.7
Cycle Q Clear(g_c), s	8.1	5.9	7.0	11.7	7.4	1.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	220	196	148	2713	2267	1011
V/C Ratio(X)	0.80	0.60	1.21	0.48	0.30	0.08
Avail Cap(c_a), veh/h	530	472	148	2713	2267	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	36.3	35.3	39.0	3.9	7.3	6.2
Incr Delay (d2), s/veh	2.5	1.1	141.6	0.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	2.2	8.8	3.1	2.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.7	36.4	180.6	4.5	7.6	6.3
LnGrp LOS	D	D	F	A	A	A
Approach Vol, veh/h	292			1475	769	
Approach Delay, s/veh	37.8			25.9	7.4	
Approach LOS	D			C	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.0	58.7			69.7	15.3
Change Period (Y+Rc), s	4.0	5.3			5.3	4.9
Max Green Setting (Gmax), s	7.0	38.7			49.7	25.1
Max Q Clear Time (g_c+I1), s	9.0	9.4			13.7	10.1
Green Ext Time (p_c), s	0.0	6.4			15.9	0.4

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	594	413	54	471	351	328	915	48	110	584	50
Future Volume (veh/h)	101	594	413	54	471	351	328	915	48	110	584	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	107	632	439	57	501	373	349	973	51	117	621	53
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	130	503	426	98	467	395	368	1718	748	140	1270	552
Arrive On Green	0.07	0.26	0.26	0.05	0.25	0.25	0.21	0.48	0.48	0.08	0.35	0.35
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1560	1810	3610	1568
Grp Volume(v), veh/h	107	632	439	57	501	373	349	973	51	117	621	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1560	1810	1805	1568
Q Serve(g_s), s	8.8	39.7	39.7	4.7	37.1	34.4	28.8	29.1	2.6	9.6	20.2	3.4
Cycle Q Clear(g_c), s	8.8	39.7	39.7	4.7	37.1	34.4	28.8	29.1	2.6	9.6	20.2	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	503	426	98	467	395	368	1718	748	140	1270	552
V/C Ratio(X)	0.83	1.26	1.03	0.58	1.07	0.94	0.95	0.57	0.07	0.84	0.49	0.10
Avail Cap(c_a), veh/h	374	503	426	311	467	395	371	1718	748	314	1270	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.32	0.32	0.32	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.7	55.1	55.1	69.3	56.4	55.4	58.8	27.9	21.0	68.3	38.1	32.6
Incr Delay (d2), s/veh	5.0	131.0	51.5	2.0	62.8	31.6	15.2	0.4	0.1	5.0	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	36.8	21.8	2.2	25.4	17.0	14.4	12.2	1.0	4.6	9.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	186.2	106.7	71.3	119.3	87.0	74.0	28.3	21.1	73.2	39.4	33.0
LnGrp LOS	E	F	F	E	F	F	E	C	C	E	D	C
Approach Vol, veh/h		1178			931			1373			791	
Approach Delay, s/veh		146.3			103.4			39.7			44.0	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	58.1	14.7	42.4	15.6	77.2	12.2	45.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	10.8	34.7	31.0	34.7	26.0	39.7	26.0	39.7
Max Q Clear Time (g_c+I1), s	10.8	22.2	10.8	39.1	11.6	31.1	6.7	41.7
Green Ext Time (p_c), s	0.0	4.8	0.1	0.0	0.1	5.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	83.8
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	404	185	38	338	122	261	1212	90	125	901	32
Future Volume (veh/h)	23	404	185	38	338	122	261	1212	90	125	901	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	439	201	41	367	133	284	1317	98	136	979	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	83	482	408	109	509	432	304	1473	109	172	1279	46
Arrive On Green	0.05	0.26	0.26	0.06	0.27	0.27	0.17	0.43	0.43	0.10	0.36	0.36
Sat Flow, veh/h	1795	1885	1596	1795	1885	1598	1810	3401	252	1810	3552	127
Grp Volume(v), veh/h	25	439	201	41	367	133	284	697	718	136	498	516
Grp Sat Flow(s),veh/h/ln	1795	1885	1596	1795	1885	1598	1810	1805	1848	1810	1805	1874
Q Serve(g_s), s	1.7	28.2	13.4	2.7	22.1	8.3	19.4	44.6	45.0	9.2	30.4	30.4
Cycle Q Clear(g_c), s	1.7	28.2	13.4	2.7	22.1	8.3	19.4	44.6	45.0	9.2	30.4	30.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.07
Lane Grp Cap(c), veh/h	83	482	408	109	509	432	304	782	800	172	650	675
V/C Ratio(X)	0.30	0.91	0.49	0.38	0.72	0.31	0.93	0.89	0.90	0.79	0.77	0.77
Avail Cap(c_a), veh/h	158	593	502	158	593	502	304	782	800	232	650	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	57.6	45.1	39.6	56.4	41.3	36.3	51.3	32.7	32.8	55.3	35.3	35.3
Incr Delay (d2), s/veh	0.7	15.3	0.6	0.8	3.7	0.4	34.3	14.6	14.8	6.3	6.1	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	14.8	5.2	1.2	10.5	3.2	11.4	21.5	22.2	4.4	13.9	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	60.4	40.2	57.2	45.0	36.7	85.6	47.3	47.7	61.6	41.4	41.2
LnGrp LOS	E	E	D	E	D	D	F	D	D	E	D	D
Approach Vol, veh/h		665			541			1699			1150	
Approach Delay, s/veh		54.2			43.9			53.9			43.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	50.7	9.8	39.5	15.9	59.8	11.6	37.7
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	11.0	34.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	11.4	32.4	3.7	24.1	11.2	47.0	4.7	30.2
Green Ext Time (p_c), s	0.0	1.1	0.0	2.3	0.1	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	49.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↱		↑↑↑↱	↱				↰↰		↱↱
Traffic Volume (veh/h)	0	1853	609	0	2291	829	0	0	0	77	0	406
Future Volume (veh/h)	0	1853	609	0	2291	829	0	0	0	77	0	406
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885				1885	0	1885
Adj Flow Rate, veh/h	0	1872	615	0	2624	0				78	0	410
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99				0.99	0.99	0.99
Percent Heavy Veh, %	0	1	1	0	1	1				1	0	1
Cap, veh/h	0	3326	819	0	3868					664	0	536
Arrive On Green	0.00	0.51	0.51	0.00	0.51	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	6749	1598	0	7541	1598				3483	0	2812
Grp Volume(v), veh/h	0	1872	615	0	2624	0				78	0	410
Grp Sat Flow(s),veh/h/ln	0	1621	1598	0	1885	1598				1742	0	1406
Q Serve(g_s), s	0.0	26.1	40.2	0.0	34.3	0.0				2.4	0.0	18.2
Cycle Q Clear(g_c), s	0.0	26.1	40.2	0.0	34.3	0.0				2.4	0.0	18.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3326	819	0	3868					664	0	536
V/C Ratio(X)	0.00	0.56	0.75	0.00	0.68					0.12	0.00	0.77
Avail Cap(c_a), veh/h	0	3341	823	0	3885					1317	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.83	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.0	25.5	0.0	24.0	0.0				44.2	0.0	50.6
Incr Delay (d2), s/veh	0.0	0.7	6.3	0.0	0.8	0.0				0.2	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	15.7	0.0	14.6	0.0				1.1	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.7	31.7	0.0	24.8	0.0				44.4	0.0	56.2
LnGrp LOS	A	C	C	A	C					D	A	E
Approach Vol, veh/h		2487			2624						488	
Approach Delay, s/veh		24.9			24.8						54.3	
Approach LOS		C			C						D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	74.5	32.5	74.5
Change Period (Y+Rc), s	6.8	7.3	6.8
Max Green Setting (Gmax), s	68.0	49.9	68.0
Max Q Clear Time (g_c+I1), s	42.2	20.2	36.3
Green Ext Time (p_c), s	25.2	4.9	31.4

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1533	397	0	2332	214	788	0	1019	0	0	0
Future Volume (veh/h)	0	1533	397	0	2332	214	788	0	1019	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1885	1885	0	1885	1885	1885	0	1885			
Adj Flow Rate, veh/h	0	1580	0	0	2404	221	812	0	1051			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	1	1	0	1	1	1	0	1			
Cap, veh/h	0	2930		0	4346	909	1651	0	917			
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57	0.33	0.00	0.33			
Sat Flow, veh/h	0	5316	1598	0	7993	1598	5063	0	2812			
Grp Volume(v), veh/h	0	1580	0	0	2404	221	812	0	1051			
Grp Sat Flow(s),veh/h/ln	0	1716	1598	0	1527	1598	1688	0	1406			
Q Serve(g_s), s	0.0	24.8	0.0	0.0	25.7	9.0	16.7	0.0	42.4			
Cycle Q Clear(g_c), s	0.0	24.8	0.0	0.0	25.7	9.0	16.7	0.0	42.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2930		0	4346	909	1651	0	917			
V/C Ratio(X)	0.00	0.54		0.00	0.55	0.24	0.49	0.00	1.15			
Avail Cap(c_a), veh/h	0	2930		0	4346	909	1651	0	917			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.92	0.00	0.00	0.17	0.17	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	17.4	0.0	0.0	17.6	14.0	35.2	0.0	43.8			
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.1	0.1	1.0	0.0	78.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	9.3	0.0	0.0	8.4	3.1	7.0	0.0	24.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.1	0.0	0.0	17.7	14.1	36.2	0.0	122.4			
LnGrp LOS	A	B		A	B	B	D	A	F			
Approach Vol, veh/h		1580			2625			1863				
Approach Delay, s/veh		18.1			17.4			84.8				
Approach LOS		B			B			F				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		80.8				80.8		49.2				
Change Period (Y+Rc), s		6.8				6.8		6.8				
Max Green Setting (Gmax), s		74.0				74.0		42.4				
Max Q Clear Time (g_c+I1), s		26.8				27.7		44.4				
Green Ext Time (p_c), s		38.1				45.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			38.3									
HCM 6th LOS			D									

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	703	1499	349	326	1423	212	609	614	320	331	378	514
Future Volume (veh/h)	703	1499	349	326	1423	212	609	614	320	331	378	514
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	732	1561	364	340	1482	221	634	640	333	345	394	535
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	562	1560	484	389	1305	405	673	1146	524	396	1305	703
Arrive On Green	0.16	0.30	0.30	0.11	0.25	0.25	0.19	0.33	0.33	0.11	0.25	0.25
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1581	3483	5147	2773
Grp Volume(v), veh/h	732	1561	364	340	1482	221	634	640	333	345	394	535
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1581	1742	1716	1387
Q Serve(g_s), s	25.0	47.0	31.9	14.9	39.3	18.6	27.6	23.5	27.6	15.1	9.6	27.7
Cycle Q Clear(g_c), s	25.0	47.0	31.9	14.9	39.3	18.6	27.6	23.5	27.6	15.1	9.6	27.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	562	1560	484	389	1305	405	673	1146	524	396	1305	703
V/C Ratio(X)	1.30	1.00	0.75	0.87	1.14	0.55	0.94	0.56	0.64	0.87	0.30	0.76
Avail Cap(c_a), veh/h	562	1560	484	562	1305	405	679	1146	524	674	1305	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	54.0	48.7	67.8	57.8	50.1	61.8	42.5	43.9	67.6	46.8	53.5
Incr Delay (d2), s/veh	143.5	17.0	5.9	7.7	70.9	5.2	21.2	2.0	5.8	3.0	0.6	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.1	22.2	13.2	6.9	25.2	7.9	14.1	10.2	11.5	6.8	4.1	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	208.5	71.0	54.6	75.5	128.8	55.3	83.0	44.5	49.7	70.6	47.4	61.1
LnGrp LOS	F	F	D	E	F	E	F	D	D	E	D	E
Approach Vol, veh/h		2657			2043			1607			1274	
Approach Delay, s/veh		106.6			112.0			60.7			59.4	
Approach LOS		F			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	45.3	22.6	57.1	22.3	53.0	34.7	45.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	25.0	39.0	30.0	39.3	25.0	39.0	30.0	39.3
Max Q Clear Time (g_c+I1), s	27.0	41.3	17.1	29.6	16.9	49.0	29.6	29.7
Green Ext Time (p_c), s	0.0	0.0	0.5	2.8	0.4	0.0	0.1	3.6

Intersection Summary	
HCM 6th Ctrl Delay	90.4
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	253	19	230	132	11
Future Vol, veh/h	222	253	19	230	132	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	236	269	20	245	140	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	505	0	656	371
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1070	-	433	679
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1070	-	423	679
Mov Cap-2 Maneuver	-	-	-	-	423	-
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	436	-	-	1070	-
HCM Lane V/C Ratio	0.349	-	-	0.019	-
HCM Control Delay (s)	17.6	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	70	9	0	105	118	209	89	249	126	10
Future Vol, veh/h	6	0	70	9	0	105	118	209	89	249	126	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	76	10	0	114	128	227	97	271	137	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1274	1265	143	1255	1222	276	148	0	0	324	0	0
Stage 1	685	685	-	532	532	-	-	-	-	-	-	-
Stage 2	589	580	-	723	690	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	145	171	910	150	181	768	1446	-	-	1247	-	-
Stage 1	441	451	-	535	529	-	-	-	-	-	-	-
Stage 2	498	503	-	421	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	93	116	910	103	123	768	1446	-	-	1247	-	-
Mov Cap-2 Maneuver	93	116	-	103	123	-	-	-	-	-	-	-
Stage 1	393	344	-	477	471	-	-	-	-	-	-	-
Stage 2	378	448	-	294	343	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	14.3	2.2	5.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1446	-	-	537	509	1247	-	-
HCM Lane V/C Ratio	0.089	-	-	0.154	0.243	0.217	-	-
HCM Control Delay (s)	7.7	0	-	12.9	14.3	8.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.9	0.8	-	-

Intersection	
Intersection Delay, s/veh	1157.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	428	922	168	64	955	334	192	300	76	168	187	386
Future Vol, veh/h	428	922	168	64	955	334	192	300	76	168	187	386
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	455	981	179	68	1016	355	204	319	81	179	199	411
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	1559.3	1330.4	422.4	581.4
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	28%	5%	23%
Vol Thru, %	53%	61%	71%	25%
Vol Right, %	13%	11%	25%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	568	1518	1353	741
LT Vol	192	428	64	168
Through Vol	300	922	955	187
RT Vol	76	168	334	386
Lane Flow Rate	604	1615	1439	788
Geometry Grp	1	1	1	1
Degree of Util (X)	1.609	4.308	3.782	2.043
Departure Headway (Hd)	49.167	29.842	32.612	40.278
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	85	145	130	102
Service Time	47.167	27.842	30.612	38.278
HCM Lane V/C Ratio	7.106	11.138	11.069	7.725
HCM Control Delay	422.4	1559.3	1330.4	581.4
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	10	53.5	42.1	15.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	613	169	72	690	282	333	370	108	155	241	38
Future Volume (veh/h)	54	613	169	72	690	282	333	370	108	155	241	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	57	645	178	76	726	297	351	389	114	163	254	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	87	794	354	96	427	362	370	923	783	186	616	97
Arrive On Green	0.05	0.22	0.22	0.05	0.23	0.23	0.21	0.49	0.49	0.10	0.39	0.39
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1589	250
Grp Volume(v), veh/h	57	645	178	76	726	297	351	389	114	163	0	294
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1840
Q Serve(g_s), s	4.7	25.6	14.6	6.3	34.0	26.5	28.9	19.9	5.9	13.4	0.0	17.5
Cycle Q Clear(g_c), s	4.7	25.6	14.6	6.3	34.0	26.5	28.9	19.9	5.9	13.4	0.0	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	87	794	354	96	427	362	370	923	783	186	0	713
V/C Ratio(X)	0.66	0.81	0.50	0.79	1.70	0.82	0.95	0.42	0.15	0.87	0.00	0.41
Avail Cap(c_a), veh/h	371	812	362	371	427	362	371	923	783	371	0	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	70.1	55.4	51.1	70.2	58.0	55.1	58.7	24.6	21.0	66.2	0.0	33.5
Incr Delay (d2), s/veh	3.1	6.8	2.1	5.5	324.5	15.0	33.0	1.4	0.4	5.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	12.2	6.0	3.0	54.2	12.0	16.3	9.0	2.3	6.3	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	62.2	53.2	75.7	382.5	70.1	91.8	26.0	21.4	71.2	0.0	35.3
LnGrp LOS	E	E	D	E	F	E	F	C	C	E	A	D
Approach Vol, veh/h		880			1099			854			457	
Approach Delay, s/veh		61.1			276.8			52.4			48.1	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	63.8	11.3	40.0	19.6	79.2	12.0	39.3
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	10.9	34.3	31.0	34.0	31.0	34.3	31.0	34.0
Max Q Clear Time (g_c+I1), s	30.9	19.5	6.7	36.0	15.4	21.9	8.3	27.6
Green Ext Time (p_c), s	0.0	1.3	0.1	0.0	0.2	2.0	0.1	3.6

Intersection Summary	
HCM 6th Ctrl Delay	129.1
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	0	10	0	0
Future Vol, veh/h	6	0	0	10	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	0	0	11	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	7	6	0	0	11	0
Stage 1	6	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1019	1083	-	-	1621	-
Stage 1	1022	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1019	1083	-	-	1621	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1019	1621	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	-	-	8.6	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	0	10	35	0	6
Future Vol, veh/h	21	0	10	35	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	0	11	38	0	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	37	30	0	0	49	0
Stage 1	30	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	981	1050	-	-	1571	-
Stage 1	998	-	-	-	-	-
Stage 2	1021	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	981	1050	-	-	1571	-
Mov Cap-2 Maneuver	981	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	1021	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	981	1571	-
HCM Lane V/C Ratio	-	-	0.023	-	-
HCM Control Delay (s)	-	-	8.8	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	27	0	84	45	0	50
Future Vol, veh/h	27	0	84	45	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	29	0	91	49	0	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	260	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1597	-	733	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1597	-	690	1052
Mov Cap-2 Maneuver	-	-	-	-	690	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1052	-	-	1597	-
HCM Lane V/C Ratio	0.052	-	-	0.057	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	37	63	138	265	7
Future Vol, veh/h	4	37	63	138	265	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	40	68	150	288	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	578	292	296	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	286	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	481	752	1277	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	453	752	1277	-	-	-
Mov Cap-2 Maneuver	453	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1277	-	707	-	-
HCM Lane V/C Ratio	0.054	-	0.063	-	-
HCM Control Delay (s)	8	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	39	66	197	295	7
Future Vol, veh/h	4	39	66	197	295	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	42	72	214	321	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	683	325	329	0	-	0
Stage 1	325	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	418	721	1242	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	712	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	390	721	1242	-	-	-
Mov Cap-2 Maneuver	390	-	-	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	712	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1242	-	668	-	-
HCM Lane V/C Ratio	0.058	-	0.07	-	-
HCM Control Delay (s)	8.1	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	41	70	251	344	7
Future Vol, veh/h	4	41	70	251	344	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	45	76	273	374	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	803	378	382	0	-	0
Stage 1	378	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	355	673	1188	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	328	673	1188	-	-	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1188	-	615	-	-
HCM Lane V/C Ratio	0.064	-	0.08	-	-
HCM Control Delay (s)	8.2	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map
Existing (2022) WP MIT - AM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	70	198	14	267	53	364	305	14	62	434	86
Future Volume (veh/h)	22	70	198	14	267	53	364	305	14	62	434	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	29	92	261	18	351	70	479	401	18	82	571	113
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	71	440	373	52	409	346	542	1884	840	103	2148	667
Arrive On Green	0.04	0.23	0.23	0.03	0.22	0.22	0.05	0.17	0.17	0.06	0.42	0.42
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	29	92	261	18	351	70	479	401	18	82	571	113
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	2.1	5.3	20.2	1.3	24.4	4.9	18.4	13.0	1.3	6.1	9.8	6.0
Cycle Q Clear(g_c), s	2.1	5.3	20.2	1.3	24.4	4.9	18.4	13.0	1.3	6.1	9.8	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	440	373	52	409	346	542	1884	840	103	2148	667
V/C Ratio(X)	0.41	0.21	0.70	0.35	0.86	0.20	0.88	0.21	0.02	0.80	0.27	0.17
Avail Cap(c_a), veh/h	106	570	483	106	557	472	689	1884	840	169	2148	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	41.7	47.4	64.3	50.7	43.1	62.8	31.8	27.0	62.8	25.5	24.4
Incr Delay (d2), s/veh	1.4	0.6	6.0	1.5	12.0	0.5	9.1	0.2	0.0	5.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	8.7	0.6	12.8	2.0	9.3	6.2	0.5	2.9	3.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	42.3	53.4	65.8	62.8	43.6	71.9	32.1	27.0	68.1	25.8	24.9
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	C	C
Approach Vol, veh/h		382			439			898			766	
Approach Delay, s/veh		51.6			59.8			53.2			30.2	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	62.5	9.9	35.3	13.1	76.7	7.9	37.3
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	26.7	37.7	8.0	40.2	12.8	52.6	8.0	40.8
Max Q Clear Time (g_c+I1), s	20.4	11.8	4.1	26.4	8.1	15.0	3.3	22.2
Green Ext Time (p_c), s	0.5	9.2	0.0	3.1	0.0	6.3	0.0	2.9

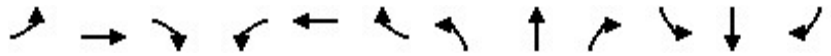
Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	22.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	101	0	1	0	317	202	0	0	247	6
Future Vol, veh/h	1	0	101	0	1	0	317	202	0	0	247	6
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	1	0	125	0	1	0	391	249	0	0	305	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	9.6	29.4	11.9
HCM LOS	A	A	D	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	61%	1%	0%	0%
Vol Thru, %	39%	0%	100%	98%
Vol Right, %	0%	99%	0%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	519	102	1	253
LT Vol	317	1	0	0
Through Vol	202	0	1	247
RT Vol	0	101	0	6
Lane Flow Rate	641	126	1	312
Geometry Grp	1	1	1	1
Degree of Util (X)	0.854	0.197	0.002	0.434
Departure Headway (Hd)	4.799	5.619	6.541	4.998
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	750	642	550	712
Service Time	2.881	3.619	4.548	3.095
HCM Lane V/C Ratio	0.855	0.196	0.002	0.438
HCM Control Delay	29.4	10	9.6	11.9
HCM Lane LOS	D	A	A	B
HCM 95th-tile Q	10	0.7	0	2.2



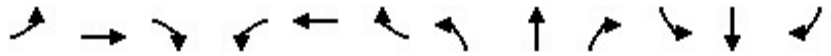
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	119	44	12	160	306	41	212	8	126	225	3
Future Volume (veh/h)	3	119	44	12	160	306	41	212	8	126	225	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	4	143	53	14	193	369	49	255	10	152	271	4
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	2	2	2
Cap, veh/h	64	496	180	67	220	403	148	699	26	305	511	7
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	8	1296	470	15	575	1052	168	1496	55	479	1093	15
Grp Volume(v), veh/h	200	0	0	576	0	0	314	0	0	427	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	0	1643	0	0	1719	0	0	1587	0	0
Q Serve(g_s), s	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	4.7	0.0	0.0	20.0	0.0	0.0	6.6	0.0	0.0	10.5	0.0	0.0
Prop In Lane	0.02		0.26	0.02		0.64	0.16		0.03	0.36		0.01
Lane Grp Cap(c), veh/h	740	0	0	690	0	0	873	0	0	823	0	0
V/C Ratio(X)	0.27	0.00	0.00	0.83	0.00	0.00	0.36	0.00	0.00	0.52	0.00	0.00
Avail Cap(c_a), veh/h	785	0	0	732	0	0	873	0	0	823	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.00	0.00	1.00	0.00	0.00	0.98	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.9	0.0	0.0	17.6	0.0	0.0	10.3	0.0	0.0	11.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	7.9	0.0	0.0	1.1	0.0	0.0	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	8.1	0.0	0.0	2.5	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	0.0	0.0	25.5	0.0	0.0	11.4	0.0	0.0	13.5	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		200			576			314			427	
Approach Delay, s/veh		13.1			25.5			11.4			13.5	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	32.5	27.5	32.5	27.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	24.5	26.5	24.5
Max Q Clear Time (g_c+I1), s	8.6	6.7	12.5	22.0
Green Ext Time (p_c), s	1.8	1.0	2.4	1.0

Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
19: Fowler Avenue & Shepherd Avenue

Tract Map
Existing (2022) WP MIT - AM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	299	63	36	285	370	145	92	34	185	125	18
Future Volume (veh/h)	20	299	63	36	285	370	145	92	34	185	125	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	21	311	66	38	297	385	151	96	35	193	130	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	65	953	416	97	536	454	178	612	519	230	562	82
Arrive On Green	0.04	0.27	0.27	0.05	0.29	0.29	0.10	0.33	0.33	0.13	0.36	0.36
Sat Flow, veh/h	1781	3554	1551	1781	1870	1585	1781	1870	1585	1753	1570	229
Grp Volume(v), veh/h	21	311	66	38	297	385	151	96	35	193	0	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1551	1781	1870	1585	1781	1870	1585	1753	0	1799
Q Serve(g_s), s	1.0	6.3	2.9	1.9	12.1	20.6	7.5	3.3	1.4	9.7	0.0	5.2
Cycle Q Clear(g_c), s	1.0	6.3	2.9	1.9	12.1	20.6	7.5	3.3	1.4	9.7	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	65	953	416	97	536	454	178	612	519	230	0	645
V/C Ratio(X)	0.32	0.33	0.16	0.39	0.55	0.85	0.85	0.16	0.07	0.84	0.00	0.23
Avail Cap(c_a), veh/h	158	1185	517	158	623	528	178	612	519	448	0	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.3	26.4	25.2	41.1	27.2	30.3	39.8	21.5	20.8	38.2	0.0	20.2
Incr Delay (d2), s/veh	1.1	0.4	0.3	1.0	1.7	12.6	28.6	0.5	0.3	3.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.7	1.1	0.8	5.5	9.2	4.6	1.5	0.5	4.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	26.8	25.5	42.1	28.9	42.9	68.4	22.0	21.1	41.4	0.0	21.0
LnGrp LOS	D	C	C	D	C	D	E	C	C	D	A	C
Approach Vol, veh/h		398			720			282			342	
Approach Delay, s/veh		27.4			37.1			46.7			32.5	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	37.9	7.3	31.8	15.8	35.2	8.9	30.1
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	9.0	23.3	8.0	30.0	23.0	9.3	8.0	30.0
Max Q Clear Time (g_c+I1), s	9.5	7.2	3.0	22.6	11.7	5.3	3.9	8.3
Green Ext Time (p_c), s	0.0	0.6	0.0	3.2	0.2	0.2	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map
Existing (2022) WP MIT - PM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	37	110	5	62	29	121	374	12	19	266	11
Future Volume (veh/h)	9	37	110	5	62	29	121	374	12	19	266	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	41	122	6	69	32	134	416	13	21	296	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	188	159	21	167	142	207	2531	1129	58	3433	1066
Arrive On Green	0.02	0.10	0.10	0.01	0.09	0.09	0.12	1.00	1.00	0.03	0.67	0.67
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	41	122	6	69	32	134	416	13	21	296	12
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	2.7	10.1	0.5	4.7	2.5	4.9	0.0	0.0	1.5	2.7	0.3
Cycle Q Clear(g_c), s	0.7	2.7	10.1	0.5	4.7	2.5	4.9	0.0	0.0	1.5	2.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	188	159	21	167	142	207	2531	1129	58	3433	1066
V/C Ratio(X)	0.30	0.22	0.77	0.28	0.41	0.23	0.65	0.16	0.01	0.36	0.09	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	356	2531	1129	196	3433	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	55.8	59.2	66.1	58.1	57.1	58.2	0.0	0.0	64.0	7.9	7.5
Incr Delay (d2), s/veh	1.9	1.4	16.3	2.6	2.8	1.4	1.3	0.1	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.4	4.8	0.2	2.4	1.1	2.1	0.0	0.0	0.7	0.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	57.2	75.4	68.8	60.9	58.5	59.5	0.1	0.0	65.4	8.0	7.6
LnGrp LOS	E	E	E	E	E	E	E	A	A	E	A	A
Approach Vol, veh/h		173			107			563			329	
Approach Delay, s/veh		70.6			60.6			14.3			11.6	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	95.8	7.1	17.9	9.7	100.3	5.6	19.4
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	6.9	4.7	2.7	6.7	3.5	2.0	2.5	12.1
Green Ext Time (p_c), s	0.1	4.5	0.0	0.8	0.0	6.5	0.0	1.5

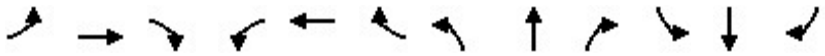
Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	56	0	0	0	103	216	1	0	238	3
Future Vol, veh/h	4	0	56	0	0	0	103	216	1	0	238	3
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	5	0	65	0	0	0	120	251	1	0	277	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	0	11.2	9.9
HCM LOS	A	-	B	A

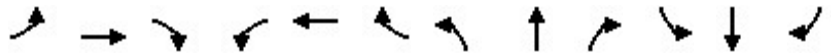
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	7%	0%	0%
Vol Thru, %	68%	0%	100%	99%
Vol Right, %	0%	93%	0%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	60	0	241
LT Vol	103	4	0	0
Through Vol	216	0	0	238
RT Vol	1	56	0	3
Lane Flow Rate	372	70	0	280
Geometry Grp	1	1	1	1
Degree of Util (X)	0.459	0.092	0	0.348
Departure Headway (Hd)	4.441	4.772	5.477	4.467
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	749	0	807
Service Time	2.465	2.813	3.529	2.491
HCM Lane V/C Ratio	0.459	0.093	0	0.347
HCM Control Delay	11.2	8.3	8.5	9.9
HCM Lane LOS	B	A	N	A
HCM 95th-tile Q	2.4	0.3	0	1.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	86	30	6	96	105	46	205	6	105	190	2
Future Volume (veh/h)	3	86	30	6	96	105	46	205	6	105	190	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	3	98	34	7	109	119	52	233	7	119	216	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	64	238	81	65	149	157	228	980	28	412	715	6
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	12	1334	453	20	835	877	234	1460	42	493	1065	9
Grp Volume(v), veh/h	135	0	0	235	0	0	292	0	0	337	0	0
Grp Sat Flow(s),veh/h/ln	1799	0	0	1732	0	0	1735	0	0	1568	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	7.7	0.0	0.0	3.6	0.0	0.0	4.5	0.0	0.0
Prop In Lane	0.02		0.25	0.03		0.51	0.18		0.02	0.35		0.01
Lane Grp Cap(c), veh/h	383	0	0	371	0	0	1236	0	0	1134	0	0
V/C Ratio(X)	0.35	0.00	0.00	0.63	0.00	0.00	0.24	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	703	0	0	680	0	0	1236	0	0	1134	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.00	0.00	1.00	0.00	0.00	0.99	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.9	0.0	0.0	23.4	0.0	0.0	3.8	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.8	0.0	0.0	0.4	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.1	0.0	0.0	1.1	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	0.0	25.2	0.0	0.0	4.3	0.0	0.0	4.6	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		135			235			292			337	
Approach Delay, s/veh		22.4			25.2			4.3			4.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	44.8	15.2	44.8	15.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	29.5	21.5	29.5	21.5
Max Q Clear Time (g_c+I1), s	5.6	6.0	6.5	9.7
Green Ext Time (p_c), s	1.8	0.6	2.2	1.0

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	288	83	47	261	128	123	119	73	110	112	14
Future Volume (veh/h)	23	288	83	47	261	128	123	119	73	110	112	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	24	303	87	49	275	135	129	125	77	116	118	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	70	611	273	107	361	306	160	917	777	155	793	101
Arrive On Green	0.04	0.17	0.17	0.06	0.19	0.19	0.09	0.49	0.49	0.09	0.48	0.48
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1639	208
Grp Volume(v), veh/h	24	303	87	49	275	135	129	125	77	116	0	133
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1847
Q Serve(g_s), s	1.3	7.7	4.8	2.6	13.8	7.5	7.1	3.6	2.6	6.3	0.0	4.0
Cycle Q Clear(g_c), s	1.3	7.7	4.8	2.6	13.8	7.5	7.1	3.6	2.6	6.3	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	70	611	273	107	361	306	160	917	777	155	0	894
V/C Ratio(X)	0.34	0.50	0.32	0.46	0.76	0.44	0.81	0.14	0.10	0.75	0.00	0.15
Avail Cap(c_a), veh/h	144	1289	575	162	698	591	341	917	777	180	0	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.8	37.6	36.4	45.5	38.3	35.7	44.7	14.1	13.9	44.6	0.0	14.4
Incr Delay (d2), s/veh	1.1	1.2	1.2	1.1	6.1	1.9	3.6	0.3	0.3	10.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.4	1.9	1.2	6.6	3.0	3.2	1.5	0.9	3.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	38.7	37.6	46.6	44.4	37.6	48.4	14.4	14.1	55.6	0.0	14.7
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	A	B
Approach Vol, veh/h		414			459			331			249	
Approach Delay, s/veh		39.0			42.6			27.6			33.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	54.1	7.9	25.1	12.6	54.3	9.9	23.1
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	8.9	16.3	8.0	37.0	10.0	25.3	9.0	36.0
Max Q Clear Time (g_c+I1), s	9.1	6.0	3.3	15.8	8.3	5.6	4.6	9.7
Green Ext Time (p_c), s	0.1	0.4	0.0	3.3	0.0	0.7	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	71	224	19	270	53	435	432	17	62	586	86
Future Volume (veh/h)	22	71	224	19	270	53	435	432	17	62	586	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	29	93	295	25	355	70	572	568	22	82	771	113
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	71	430	365	64	412	349	635	1877	837	103	2002	621
Arrive On Green	0.04	0.23	0.23	0.04	0.22	0.22	0.06	0.17	0.17	0.06	0.39	0.39
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	29	93	295	25	355	70	572	568	22	82	771	113
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	2.1	5.4	23.6	1.9	24.7	4.9	22.0	18.7	1.5	6.1	14.6	6.3
Cycle Q Clear(g_c), s	2.1	5.4	23.6	1.9	24.7	4.9	22.0	18.7	1.5	6.1	14.6	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	430	365	64	412	349	635	1877	837	103	2002	621
V/C Ratio(X)	0.41	0.22	0.81	0.39	0.86	0.20	0.90	0.30	0.03	0.80	0.39	0.18
Avail Cap(c_a), veh/h	106	567	480	106	554	470	740	1877	837	169	2002	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	42.3	49.3	63.6	50.6	42.9	62.2	34.3	27.2	62.8	29.4	26.9
Incr Delay (d2), s/veh	1.4	0.6	11.5	1.4	12.4	0.5	11.1	0.4	0.1	5.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	10.6	0.9	13.0	2.0	11.3	9.0	0.6	2.9	5.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	42.9	60.8	65.0	63.0	43.4	73.3	34.7	27.3	68.1	29.9	27.5
LnGrp LOS	E	D	E	E	E	D	E	C	C	E	C	C
Approach Vol, veh/h		417			450			1162			966	
Approach Delay, s/veh		57.1			60.0			53.6			32.9	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.9	58.6	9.9	35.6	13.1	76.4	8.9	36.6
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	28.7	35.9	8.0	40.0	12.8	52.8	8.0	40.6
Max Q Clear Time (g_c+I1), s	24.0	16.6	4.1	26.7	8.1	20.7	3.9	25.6
Green Ext Time (p_c), s	0.6	10.2	0.0	3.1	0.0	9.0	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	25.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	2	102	0	2	0	320	219	0	0	261	6
Future Vol, veh/h	1	2	102	0	2	0	320	219	0	0	261	6
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	1	2	126	0	2	0	395	270	0	0	322	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	9.7	34.7	12.7
HCM LOS	B	A	D	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	1%	0%	0%
Vol Thru, %	41%	2%	100%	98%
Vol Right, %	0%	97%	0%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	539	105	2	267
LT Vol	320	1	0	0
Through Vol	219	2	2	261
RT Vol	0	102	0	6
Lane Flow Rate	665	130	2	330
Geometry Grp	1	1	1	1
Degree of Util (X)	0.894	0.207	0.005	0.473
Departure Headway (Hd)	4.941	5.738	6.675	5.164
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	739	627	537	702
Service Time	2.941	3.755	4.702	3.164
HCM Lane V/C Ratio	0.9	0.207	0.004	0.47
HCM Control Delay	34.7	10.3	9.7	12.7
HCM Lane LOS	D	B	A	B
HCM 95th-tile Q	11.5	0.8	0	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	126	46	17	167	306	45	256	11	126	250	3
Future Volume (veh/h)	3	126	46	17	167	306	45	256	11	126	250	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	4	152	55	20	201	369	54	308	13	152	301	4
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	2	2	2
Cap, veh/h	64	503	179	71	228	395	501	814	34	491	856	11
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	8	1307	464	24	591	1027	1057	1752	74	1059	1841	24
Grp Volume(v), veh/h	211	0	0	590	0	0	54	0	321	152	0	305
Grp Sat Flow(s),veh/h/ln	1779	0	0	1642	0	0	1057	0	1826	1059	0	1866
Q Serve(g_s), s	0.0	0.0	0.0	7.6	0.0	0.0	2.1	0.0	6.8	6.5	0.0	6.3
Cycle Q Clear(g_c), s	5.0	0.0	0.0	20.7	0.0	0.0	8.3	0.0	6.8	13.4	0.0	6.3
Prop In Lane	0.02		0.26	0.03		0.63	1.00		0.04	1.00		0.01
Lane Grp Cap(c), veh/h	746	0	0	694	0	0	501	0	849	491	0	867
V/C Ratio(X)	0.28	0.00	0.00	0.85	0.00	0.00	0.11	0.00	0.38	0.31	0.00	0.35
Avail Cap(c_a), veh/h	763	0	0	710	0	0	501	0	849	491	0	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	0.0	17.7	0.0	0.0	12.9	0.0	10.4	14.8	0.0	10.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	9.5	0.0	0.0	0.4	0.0	1.3	1.6	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	8.6	0.0	0.0	0.5	0.0	2.7	1.6	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	0.0	0.0	27.1	0.0	0.0	13.4	0.0	11.7	16.4	0.0	11.4
LnGrp LOS	B	A	A	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		211			590			375			457	
Approach Delay, s/veh		13.1			27.1			11.9			13.1	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	32.4		27.6		32.4		27.6					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	27.3		23.7		27.3		23.7					
Max Q Clear Time (g_c+I1), s	10.3		7.0		15.4		22.7					
Green Ext Time (p_c), s	2.0		1.1		2.0		0.4					

Intersection Summary												
HCM 6th Ctrl Delay			17.9									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	668	241	148	724	133	191	257	89	205	459	117
Future Volume (veh/h)	84	668	241	148	724	133	191	257	89	205	459	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	795	287	176	862	158	227	306	106	244	546	139
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	124	954	419	202	927	170	301	977	430	316	1007	449
Arrive On Green	0.07	0.27	0.27	0.11	0.31	0.31	0.17	0.28	0.28	0.18	0.28	0.28
Sat Flow, veh/h	1795	3582	1574	1767	2975	545	1781	3554	1563	1781	3554	1585
Grp Volume(v), veh/h	100	795	287	176	511	509	227	306	106	244	546	139
Grp Sat Flow(s),veh/h/ln	1795	1791	1574	1767	1763	1757	1781	1777	1563	1781	1777	1585
Q Serve(g_s), s	6.6	25.1	12.9	11.8	33.7	33.7	14.6	8.2	4.6	15.7	15.6	6.5
Cycle Q Clear(g_c), s	6.6	25.1	12.9	11.8	33.7	33.7	14.6	8.2	4.6	15.7	15.6	6.5
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	954	419	202	550	548	301	977	430	316	1007	449
V/C Ratio(X)	0.81	0.83	0.68	0.87	0.93	0.93	0.75	0.31	0.25	0.77	0.54	0.31
Avail Cap(c_a), veh/h	135	955	420	221	558	557	301	977	430	316	1007	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	41.5	17.0	52.2	40.0	40.0	47.5	34.5	17.9	47.0	36.4	20.9
Incr Delay (d2), s/veh	24.8	6.7	5.2	25.8	22.5	22.6	9.2	0.8	1.4	10.1	2.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	11.9	5.2	6.7	17.8	17.8	7.2	3.7	2.5	7.8	7.1	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	48.2	22.2	78.0	62.5	62.6	56.7	35.3	19.2	57.2	38.5	22.7
LnGrp LOS	E	D	C	E	E	E	E	D	B	E	D	C
Approach Vol, veh/h		1182			1196			639			929	
Approach Delay, s/veh		44.6			64.8			40.2			41.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	40.0	12.3	43.4	25.3	39.0	17.7	38.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	10.3	34.0	9.0	38.0	20.0	33.0	15.0	32.0
Max Q Clear Time (g_c+I1), s	10.6	17.6	8.6	35.7	17.7	10.2	13.8	27.1
Green Ext Time (p_c), s	0.1	5.2	0.0	1.7	0.1	2.5	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	49.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	684	134	214	649	113	111	193	132	152	380	201
Future Volume (veh/h)	108	684	134	214	649	113	111	193	132	152	380	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	130	824	161	258	782	136	134	233	159	183	458	242
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	243	856	381	312	932	416	157	1122	501	588	1427	636
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.09	0.33	0.33	0.17	0.41	0.41
Sat Flow, veh/h	3428	3526	1569	3456	3554	1585	1711	3413	1522	3374	3469	1547
Grp Volume(v), veh/h	130	824	161	258	782	136	134	233	159	183	458	242
Grp Sat Flow(s),veh/h/ln	1714	1763	1569	1728	1777	1585	1711	1706	1522	1687	1735	1547
Q Serve(g_s), s	5.1	32.3	12.1	10.3	29.1	9.7	10.8	6.9	11.0	6.6	12.5	15.3
Cycle Q Clear(g_c), s	5.1	32.3	12.1	10.3	29.1	9.7	10.8	6.9	11.0	6.6	12.5	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	856	381	312	932	416	157	1122	501	588	1427	636
V/C Ratio(X)	0.53	0.96	0.42	0.83	0.84	0.33	0.85	0.21	0.32	0.31	0.32	0.38
Avail Cap(c_a), veh/h	598	856	381	602	932	416	298	1122	501	588	1427	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	52.4	44.7	62.6	48.8	41.7	62.6	33.8	35.2	50.5	27.9	28.8
Incr Delay (d2), s/veh	0.7	22.1	1.1	2.1	7.1	0.7	4.9	0.4	1.6	1.4	0.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	16.9	4.9	4.6	13.9	3.9	4.9	3.0	4.3	2.9	5.4	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	74.5	45.8	64.7	56.0	42.3	67.5	34.2	36.8	51.8	28.5	30.5
LnGrp LOS	E	E	D	E	E	D	E	C	D	D	C	C
Approach Vol, veh/h		1115			1176			526			883	
Approach Delay, s/veh		69.1			56.3			43.5			33.9	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	63.3	15.5	42.7	30.0	51.7	18.3	40.0
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	12.8	17.3	7.1	31.1	8.6	13.0	12.3	34.3
Green Ext Time (p_c), s	0.1	8.7	0.2	1.9	0.3	3.9	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	352	341	35	399	180	153	462	20	70	823	72
Future Volume (veh/h)	41	352	341	35	399	180	153	462	20	70	823	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	47	405	392	40	459	207	176	531	23	80	946	83
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	117	527	446	108	521	441	194	1381	601	143	1286	559
Arrive On Green	0.07	0.28	0.28	0.06	0.28	0.28	0.11	0.39	0.39	0.08	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1795	1885	1596	1767	3526	1534	1781	3554	1544
Grp Volume(v), veh/h	47	405	392	40	459	207	176	531	23	80	946	83
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1596	1767	1763	1534	1781	1777	1544
Q Serve(g_s), s	2.5	19.9	23.6	2.1	23.3	10.8	9.8	10.8	0.9	4.3	23.1	3.6
Cycle Q Clear(g_c), s	2.5	19.9	23.6	2.1	23.3	10.8	9.8	10.8	0.9	4.3	23.1	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	527	446	108	521	441	194	1381	601	143	1286	559
V/C Ratio(X)	0.40	0.77	0.88	0.37	0.88	0.47	0.91	0.38	0.04	0.56	0.74	0.15
Avail Cap(c_a), veh/h	160	574	487	162	579	490	194	1381	601	178	1286	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	32.9	34.3	45.2	34.6	30.1	44.0	21.8	18.8	44.3	27.7	21.5
Incr Delay (d2), s/veh	0.8	6.5	16.5	0.8	14.4	1.1	36.3	0.7	0.1	1.3	3.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	9.8	10.9	1.0	12.5	4.2	6.2	4.5	0.3	1.9	10.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	39.4	50.8	45.9	49.0	31.2	80.3	22.5	18.9	45.6	31.5	22.1
LnGrp LOS	D	D	D	D	D	C	F	C	B	D	C	C
Approach Vol, veh/h		844			706			730			1109	
Approach Delay, s/veh		45.0			43.6			36.3			31.8	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	41.5	10.6	32.9	12.0	44.5	10.0	33.5
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	11.0	30.7	9.0	30.7	10.0	31.7	9.0	30.7
Max Q Clear Time (g_c+I1), s	11.8	25.1	4.5	25.3	6.3	12.8	4.1	25.6
Green Ext Time (p_c), s	0.0	3.8	0.0	2.3	0.0	5.0	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
15: Clovis Avenue & Herndon Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	356	887	249	152	1063	177	250	307	122	197	410	693
Future Volume (veh/h)	356	887	249	152	1063	177	250	307	122	197	410	693
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	383	954	268	163	1143	190	269	330	131	212	441	745
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	540	1882	731	305	1544	479	323	1066	396	264	1440	1230
Arrive On Green	0.31	0.74	0.74	0.09	0.30	0.30	0.09	0.29	0.29	0.08	0.28	0.28
Sat Flow, veh/h	3428	5066	1572	3456	5106	1583	3456	3646	1354	3483	5147	2812
Grp Volume(v), veh/h	383	954	268	163	1143	190	269	307	154	212	441	745
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1583	1728	1702	1596	1742	1716	1406
Q Serve(g_s), s	12.8	10.1	4.4	5.9	26.2	12.4	9.9	9.1	9.9	7.8	8.8	6.2
Cycle Q Clear(g_c), s	12.8	10.1	4.4	5.9	26.2	12.4	9.9	9.1	9.9	7.8	8.8	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.85	1.00		1.00
Lane Grp Cap(c), veh/h	540	1882	731	305	1544	479	323	995	467	264	1440	1230
V/C Ratio(X)	0.71	0.51	0.37	0.53	0.74	0.40	0.83	0.31	0.33	0.80	0.31	0.61
Avail Cap(c_a), veh/h	540	1882	731	305	1544	479	425	995	467	295	1440	1230
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	11.8	3.5	56.7	40.8	36.0	57.9	35.8	36.0	59.1	36.9	12.3
Incr Delay (d2), s/veh	3.3	0.9	1.2	1.0	3.2	2.5	8.1	0.8	1.9	12.0	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.9	1.6	2.6	11.4	5.1	4.7	3.9	4.1	3.9	3.8	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	12.7	4.8	57.7	44.0	38.4	66.0	36.6	37.9	71.1	37.4	14.5
LnGrp LOS	D	B	A	E	D	D	E	D	D	E	D	B
Approach Vol, veh/h		1605			1496			730			1398	
Approach Delay, s/veh		19.1			44.8			47.7			30.3	
Approach LOS		B			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.5	45.3	15.5	43.7	16.5	54.3	17.2	42.1
Change Period (Y+Rc), s	5.0	6.0	5.7	* 5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	20.0	39.3	11.0	* 38	11.0	48.3	16.0	33.0
Max Q Clear Time (g_c+I1), s	14.8	28.2	9.8	11.9	7.9	12.1	11.9	10.8
Green Ext Time (p_c), s	0.4	5.7	0.1	2.0	0.1	9.6	0.2	7.5

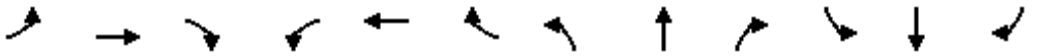
Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
18: Sunnyside Avenue & Shepherd Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	741	195	67	721	11	110	15	49	24	27	99
Future Volume (veh/h)	63	741	195	67	721	11	110	15	49	24	27	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1752	1752	1752	1722	1722	1722
Adj Flow Rate, veh/h	64	756	199	68	736	11	112	15	50	24	28	101
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	1	1	1	10	10	10	12	12	12
Cap, veh/h	82	796	660	88	1544	673	138	106	352	41	413	349
Arrive On Green	0.05	0.43	0.43	0.05	0.43	0.43	0.08	0.30	0.30	0.03	0.24	0.24
Sat Flow, veh/h	1767	1856	1538	1795	3582	1561	1668	355	1184	1640	1722	1458
Grp Volume(v), veh/h	64	756	199	68	736	11	112	0	65	24	28	101
Grp Sat Flow(s),veh/h/ln	1767	1856	1538	1795	1791	1561	1668	0	1539	1640	1722	1458
Q Serve(g_s), s	3.2	35.3	7.6	3.4	13.2	0.4	5.9	0.0	2.8	1.3	1.1	5.1
Cycle Q Clear(g_c), s	3.2	35.3	7.6	3.4	13.2	0.4	5.9	0.0	2.8	1.3	1.1	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		1.00
Lane Grp Cap(c), veh/h	82	796	660	88	1544	673	138	0	458	41	413	349
V/C Ratio(X)	0.78	0.95	0.30	0.78	0.48	0.02	0.81	0.00	0.14	0.58	0.07	0.29
Avail Cap(c_a), veh/h	175	814	675	110	1544	673	139	0	458	108	413	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	24.8	16.9	42.3	18.3	14.7	40.6	0.0	23.2	43.4	26.5	28.0
Incr Delay (d2), s/veh	14.4	20.2	0.3	23.4	0.2	0.0	28.9	0.0	0.7	12.4	0.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	19.0	2.6	2.0	5.3	0.1	3.5	0.0	1.1	0.7	0.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	44.9	17.1	65.7	18.6	14.7	69.5	0.0	23.8	55.8	26.8	30.0
LnGrp LOS	E	D	B	E	B	B	E	A	C	E	C	C
Approach Vol, veh/h		1019			815			177			153	
Approach Delay, s/veh		40.2			22.4			52.7			33.5	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	31.3	8.9	43.1	12.0	26.1	8.7	43.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.9	21.1	5.5	39.5	7.5	19.5	8.9	36.1
Max Q Clear Time (g_c+I1), s	3.3	4.8	5.4	37.3	7.9	7.1	5.2	15.2
Green Ext Time (p_c), s	0.0	0.2	0.0	1.2	0.0	0.3	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	574	187	37	447	370	208	97	38	185	126	27
Future Volume (veh/h)	32	574	187	37	447	370	208	97	38	185	126	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	33	598	195	39	466	385	217	101	40	193	131	28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	89	1040	454	99	558	473	178	565	479	230	489	105
Arrive On Green	0.05	0.29	0.29	0.06	0.30	0.30	0.10	0.30	0.30	0.13	0.33	0.33
Sat Flow, veh/h	1781	3554	1551	1781	1870	1585	1781	1870	1585	1753	1470	314
Grp Volume(v), veh/h	33	598	195	39	466	385	217	101	40	193	0	159
Grp Sat Flow(s),veh/h/ln	1781	1777	1551	1781	1870	1585	1781	1870	1585	1753	0	1784
Q Serve(g_s), s	1.6	12.9	9.2	1.9	21.0	20.3	9.0	3.6	1.6	9.7	0.0	5.9
Cycle Q Clear(g_c), s	1.6	12.9	9.2	1.9	21.0	20.3	9.0	3.6	1.6	9.7	0.0	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	89	1040	454	99	558	473	178	565	479	230	0	594
V/C Ratio(X)	0.37	0.57	0.43	0.40	0.84	0.81	1.22	0.18	0.08	0.84	0.00	0.27
Avail Cap(c_a), veh/h	158	1185	517	158	623	528	178	565	479	448	0	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.4	27.1	25.7	41.1	29.5	29.3	40.5	23.2	22.5	38.2	0.0	22.0
Incr Delay (d2), s/veh	1.0	1.0	1.2	1.0	10.1	10.1	138.3	0.7	0.3	3.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.5	3.4	0.9	10.7	8.8	10.7	1.7	0.6	4.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	28.0	26.9	42.0	39.6	39.4	178.8	23.9	22.8	41.4	0.0	23.1
LnGrp LOS	D	C	C	D	D	D	F	C	C	D	A	C
Approach Vol, veh/h		826			890			358			352	
Approach Delay, s/veh		28.3			39.6			117.6			33.1	
Approach LOS		C			D			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	35.7	8.5	32.8	15.8	32.9	9.0	32.4
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	9.0	23.3	8.0	30.0	23.0	9.3	8.0	30.0
Max Q Clear Time (g_c+I1), s	11.0	7.9	3.6	23.0	11.7	5.6	3.9	14.9
Green Ext Time (p_c), s	0.0	0.7	0.0	3.9	0.2	0.2	0.0	6.7

Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map
Near Term (2026) WP MIT - PM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	40	188	16	64	29	169	597	24	19	468	11
Future Volume (veh/h)	9	40	188	16	64	29	169	597	24	19	468	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	44	209	18	71	32	188	663	27	21	520	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	297	252	52	308	261	242	2259	1008	58	2994	930
Arrive On Green	0.02	0.16	0.16	0.03	0.16	0.16	0.05	0.42	0.42	0.03	0.58	0.58
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	44	209	18	71	32	188	663	27	21	520	12
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	2.7	17.2	1.3	4.4	2.3	7.2	16.4	1.3	1.5	6.3	0.4
Cycle Q Clear(g_c), s	0.7	2.7	17.2	1.3	4.4	2.3	7.2	16.4	1.3	1.5	6.3	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	297	252	52	308	261	242	2259	1008	58	2994	930
V/C Ratio(X)	0.30	0.15	0.83	0.35	0.23	0.12	0.78	0.29	0.03	0.36	0.17	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	382	2259	1008	196	2994	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	48.9	55.0	64.3	48.9	48.0	63.4	19.4	15.1	64.0	13.1	11.9
Incr Delay (d2), s/veh	1.9	0.5	14.9	1.5	0.6	0.4	2.0	0.3	0.0	1.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	7.9	0.6	2.2	1.0	3.2	7.4	0.5	0.7	2.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	49.5	70.0	65.8	49.6	48.4	65.4	19.8	15.1	65.4	13.3	11.9
LnGrp LOS	E	D	E	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		263			121			878			553	
Approach Delay, s/veh		66.4			51.7			29.4			15.2	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	84.2	7.1	28.1	9.7	90.2	7.9	27.2
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	14.7	38.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	9.2	8.3	2.7	6.4	3.5	18.4	3.3	19.2
Green Ext Time (p_c), s	0.1	7.8	0.0	0.8	0.0	8.7	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	2	59	0	2	0	105	237	1	0	260	3
Future Vol, veh/h	4	2	59	0	2	0	105	237	1	0	260	3
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	1	1	1
Mvmt Flow	5	2	69	0	2	0	122	276	1	0	302	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.7	11.9	10.4
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	6%	0%	0%
Vol Thru, %	69%	3%	100%	99%
Vol Right, %	0%	91%	0%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	343	65	2	263
LT Vol	105	4	0	0
Through Vol	237	2	2	260
RT Vol	1	59	0	3
Lane Flow Rate	399	76	2	306
Geometry Grp	1	1	1	1
Degree of Util (X)	0.498	0.103	0.004	0.384
Departure Headway (Hd)	4.493	4.911	5.612	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	802	726	634	795
Service Time	2.524	2.962	3.676	2.558
HCM Lane V/C Ratio	0.498	0.105	0.003	0.385
HCM Control Delay	11.9	8.5	8.7	10.4
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.8	0.3	0	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	96	34	17	105	105	49	243	18	105	239	2
Future Volume (veh/h)	3	96	34	17	105	105	49	243	18	105	239	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	3	109	39	19	119	119	56	276	20	119	272	2
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	63	253	89	77	165	153	789	1144	83	769	1231	9
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	11	1323	464	65	861	798	1114	1737	126	1092	1869	14
Grp Volume(v), veh/h	151	0	0	257	0	0	56	0	296	119	0	274
Grp Sat Flow(s),veh/h/ln	1798	0	0	1723	0	0	1114	0	1863	1092	0	1883
Q Serve(g_s), s	0.0	0.0	0.0	2.9	0.0	0.0	1.3	0.0	3.9	3.0	0.0	3.5
Cycle Q Clear(g_c), s	4.4	0.0	0.0	8.4	0.0	0.0	4.8	0.0	3.9	6.8	0.0	3.5
Prop In Lane	0.02		0.26	0.07		0.46	1.00		0.07	1.00		0.01
Lane Grp Cap(c), veh/h	405	0	0	394	0	0	789	0	1227	769	0	1240
V/C Ratio(X)	0.37	0.00	0.00	0.65	0.00	0.00	0.07	0.00	0.24	0.15	0.00	0.22
Avail Cap(c_a), veh/h	673	0	0	649	0	0	789	0	1227	769	0	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	23.0	0.0	0.0	5.0	0.0	4.2	5.5	0.0	4.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.8	0.0	0.0	0.2	0.0	0.5	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	3.4	0.0	0.0	0.3	0.0	1.1	0.6	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	0.0	24.8	0.0	0.0	5.2	0.0	4.6	6.0	0.0	4.5
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		151			257			352			393	
Approach Delay, s/veh		22.0			24.8			4.7			4.9	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	44.0	16.0	44.0	16.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	30.5	20.5	30.5	20.5
Max Q Clear Time (g_c+I1), s	6.8	6.4	8.8	10.4
Green Ext Time (p_c), s	2.0	0.6	2.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	981	153	105	868	201	195	489	150	151	346	103
Future Volume (veh/h)	137	981	153	105	868	201	195	489	150	151	346	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	147	1055	165	113	933	216	210	526	161	162	372	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	173	1296	578	138	946	219	751	2197	980	189	1015	453
Arrive On Green	0.10	0.36	0.36	0.08	0.32	0.32	0.42	0.61	0.61	0.11	0.28	0.28
Sat Flow, veh/h	1795	3582	1598	1810	2911	673	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	147	1055	165	113	578	571	210	526	161	162	372	111
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1805	1779	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	9.7	32.0	6.1	7.4	38.2	38.3	9.2	8.0	5.2	10.6	10.0	6.4
Cycle Q Clear(g_c), s	9.7	32.0	6.1	7.4	38.2	38.3	9.2	8.0	5.2	10.6	10.0	6.4
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	1296	578	138	587	578	751	2197	980	189	1015	453
V/C Ratio(X)	0.85	0.81	0.29	0.82	0.99	0.99	0.28	0.24	0.16	0.86	0.37	0.25
Avail Cap(c_a), veh/h	180	1296	578	166	587	578	751	2197	980	209	1015	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	34.7	13.1	54.6	40.2	40.3	23.0	10.5	10.0	52.8	34.4	33.1
Incr Delay (d2), s/veh	27.5	4.4	0.4	19.3	33.4	34.2	0.1	0.3	0.4	24.3	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	13.9	3.2	4.0	21.3	21.2	3.8	3.0	1.7	6.1	4.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	39.0	13.6	73.9	73.6	74.5	23.1	10.8	10.3	77.1	35.4	34.4
LnGrp LOS	F	D	B	E	E	E	C	B	B	E	D	C
Approach Vol, veh/h		1367			1262			897			645	
Approach Delay, s/veh		40.4			74.0			13.6			45.7	
Approach LOS		D			E			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	40.0	17.6	45.0	16.6	79.8	13.2	49.4
Change Period (Y+Rc), s	6.0	* 6	6.0	* 6	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	15.0	* 34	12.0	* 39	14.0	35.0	11.0	40.0
Max Q Clear Time (g_c+I1), s	11.2	12.0	11.7	40.3	12.6	10.0	9.4	34.0
Green Ext Time (p_c), s	0.1	3.9	0.0	0.0	0.0	4.1	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	863	155	164	874	142	203	392	175	131	265	156
Future Volume (veh/h)	186	863	155	164	874	142	203	392	175	131	265	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	196	908	163	173	920	149	214	413	184	138	279	164
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	1010	450	304	1018	454	242	1246	556	305	1078	481
Arrive On Green	0.09	0.28	0.28	0.09	0.28	0.28	0.13	0.35	0.35	0.09	0.30	0.30
Sat Flow, veh/h	3483	3582	1594	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	196	908	163	173	920	149	214	413	184	138	279	164
Grp Sat Flow(s),veh/h/ln	1742	1791	1594	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	6.3	28.0	9.4	5.4	28.2	8.4	13.4	9.7	9.7	4.3	6.8	9.1
Cycle Q Clear(g_c), s	6.3	28.0	9.4	5.4	28.2	8.4	13.4	9.7	9.7	4.3	6.8	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	1010	450	304	1018	454	242	1246	556	305	1078	481
V/C Ratio(X)	0.65	0.90	0.36	0.57	0.90	0.33	0.89	0.33	0.33	0.45	0.26	0.34
Avail Cap(c_a), veh/h	303	1028	457	317	1048	468	242	1246	556	305	1078	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	39.7	33.0	50.5	39.8	32.7	49.0	27.8	27.8	49.9	30.6	31.5
Incr Delay (d2), s/veh	3.8	10.8	0.7	1.3	11.1	0.6	27.5	0.7	1.5	4.8	0.6	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	13.2	3.6	2.4	13.4	3.2	7.7	4.2	3.8	2.0	2.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	50.5	33.7	51.7	50.8	33.3	76.5	28.5	29.3	54.7	31.2	33.4
LnGrp LOS	D	D	C	D	D	C	E	C	C	D	C	C
Approach Vol, veh/h		1267			1242			811			581	
Approach Delay, s/veh		48.9			48.9			41.3			37.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	40.1	15.6	38.4	15.6	45.4	15.6	38.4
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	15.4	33.3	10.0	33.4	10.0	38.7	10.4	33.0
Max Q Clear Time (g_c+I1), s	15.4	11.1	8.3	30.2	6.3	11.7	7.4	30.0
Green Ext Time (p_c), s	0.0	6.1	0.1	2.2	0.1	6.6	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
11: Clovis Avenue & Nees Avenue

Tract Map
Near Term (2026) WP MIT - PM Pk Hr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	472	393	22	449	74	312	882	46	43	553	48
Future Volume (veh/h)	55	472	393	22	449	74	312	882	46	43	553	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	59	502	418	23	478	79	332	938	49	46	588	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	117	581	492	72	530	449	344	1578	687	106	1110	482
Arrive On Green	0.06	0.31	0.31	0.04	0.28	0.28	0.19	0.44	0.44	0.06	0.31	0.31
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1559	1810	3610	1567
Grp Volume(v), veh/h	59	502	418	23	478	79	332	938	49	46	588	51
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1559	1810	1805	1567
Q Serve(g_s), s	3.8	29.9	29.2	1.5	29.3	4.5	22.0	23.8	2.2	2.9	16.2	2.8
Cycle Q Clear(g_c), s	3.8	29.9	29.2	1.5	29.3	4.5	22.0	23.8	2.2	2.9	16.2	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	581	492	72	530	449	344	1578	687	106	1110	482
V/C Ratio(X)	0.51	0.86	0.85	0.32	0.90	0.18	0.96	0.59	0.07	0.43	0.53	0.11
Avail Cap(c_a), veh/h	151	629	533	135	608	515	344	1578	687	166	1110	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	39.3	39.1	56.0	41.5	32.6	48.1	25.4	19.4	54.5	34.4	29.7
Incr Delay (d2), s/veh	1.3	12.1	12.4	0.9	16.2	0.3	27.5	0.9	0.1	1.0	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	15.3	12.8	0.7	15.4	1.7	12.1	9.8	0.8	1.4	7.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	51.4	51.5	56.9	57.7	32.9	75.6	26.4	19.5	55.6	36.2	30.2
LnGrp LOS	E	D	D	E	E	C	E	C	B	E	D	C
Approach Vol, veh/h		979			580			1319			685	
Approach Delay, s/veh		51.7			54.3			38.5			37.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	42.2	11.7	39.0	11.1	58.2	8.8	42.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	13.0	29.7	10.0	38.7	11.0	41.7	9.0	39.7
Max Q Clear Time (g_c+I1), s	14.0	18.2	5.8	31.3	4.9	25.8	3.5	31.9
Green Ext Time (p_c), s	0.0	4.4	0.0	2.4	0.0	7.8	0.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

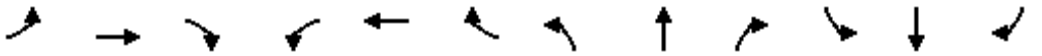
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	677	1428	330	319	1137	203	389	560	280	316	361	463
Future Volume (veh/h)	677	1428	330	319	1137	203	389	560	280	316	361	463
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	705	1488	344	332	1184	211	405	583	292	329	376	482
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	697	1849	836	398	1408	437	577	939	429	348	1066	1137
Arrive On Green	0.40	0.72	0.72	0.11	0.27	0.27	0.16	0.27	0.27	0.10	0.21	0.21
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1579	3483	5147	2772
Grp Volume(v), veh/h	705	1488	344	332	1184	211	405	583	292	329	376	482
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1579	1742	1716	1386
Q Serve(g_s), s	28.0	27.0	0.0	13.1	30.4	15.5	15.3	20.7	23.1	13.1	8.7	0.0
Cycle Q Clear(g_c), s	28.0	27.0	0.0	13.1	30.4	15.5	15.3	20.7	23.1	13.1	8.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	697	1849	836	398	1408	437	577	939	429	348	1066	1137
V/C Ratio(X)	1.01	0.80	0.41	0.83	0.84	0.48	0.70	0.62	0.68	0.94	0.35	0.42
Avail Cap(c_a), veh/h	697	1849	836	398	1408	437	577	939	429	348	1066	1137
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	16.4	7.7	60.7	48.0	42.6	55.3	44.7	45.6	62.6	47.5	29.7
Incr Delay (d2), s/veh	28.5	2.2	0.8	13.4	6.2	3.8	3.3	3.1	8.5	33.7	0.9	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	5.7	2.7	6.4	13.5	6.5	6.9	9.1	9.9	7.3	3.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.5	18.6	8.5	74.1	54.2	46.4	58.5	47.8	54.1	96.3	48.4	30.9
LnGrp LOS	F	B	A	E	D	D	E	D	D	F	D	C
Approach Vol, veh/h		2537			1727			1280			1187	
Approach Delay, s/veh		31.7			57.1			52.6			54.5	
Approach LOS		C			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	44.3	19.0	43.7	21.0	56.3	28.0	34.7
Change Period (Y+Rc), s	5.0	6.0	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	28.0	38.3	14.0	38.0	16.0	50.3	23.0	29.0
Max Q Clear Time (g_c+I1), s	30.0	32.4	15.1	25.1	15.1	29.0	17.3	10.7
Green Ext Time (p_c), s	0.0	3.5	0.0	2.9	0.1	11.8	0.4	4.6

Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
18: Sunnyside Avenue & Shepherd Avenue

Tract Map
Near Term (2026) WP MIT - PM Pk Hr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	886	160	62	915	31	183	25	74	19	21	108
Future Volume (veh/h)	133	886	160	62	915	31	183	25	74	19	21	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	141	943	170	66	973	33	195	27	79	20	22	115
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	169	998	846	85	1740	776	224	108	316	37	285	242
Arrive On Green	0.09	0.53	0.53	0.05	0.48	0.48	0.12	0.25	0.25	0.02	0.15	0.15
Sat Flow, veh/h	1795	1885	1598	1810	3610	1610	1810	427	1249	1810	1900	1610
Grp Volume(v), veh/h	141	943	170	66	973	33	195	0	106	20	22	115
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1810	1805	1610	1810	0	1675	1810	1900	1610
Q Serve(g_s), s	9.3	56.5	6.7	4.3	22.9	1.3	12.7	0.0	6.1	1.3	1.2	7.8
Cycle Q Clear(g_c), s	9.3	56.5	6.7	4.3	22.9	1.3	12.7	0.0	6.1	1.3	1.2	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	169	998	846	85	1740	776	224	0	424	37	285	242
V/C Ratio(X)	0.83	0.94	0.20	0.78	0.56	0.04	0.87	0.00	0.25	0.55	0.08	0.48
Avail Cap(c_a), veh/h	262	998	846	113	1740	776	271	0	424	271	285	242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	26.6	14.9	56.6	22.0	16.4	51.6	0.0	35.7	58.2	43.9	46.7
Incr Delay (d2), s/veh	12.5	17.9	0.5	21.1	1.3	0.1	22.1	0.0	1.4	12.0	0.5	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	27.4	2.4	2.4	9.6	0.5	7.0	0.0	2.6	0.7	0.6	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	44.5	15.4	77.7	23.3	16.5	73.7	0.0	37.1	70.2	44.4	53.3
LnGrp LOS	E	D	B	E	C	B	E	A	D	E	D	D
Approach Vol, veh/h		1254			1072			301			157	
Approach Delay, s/veh		43.0			26.5			60.8			54.2	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	68.0	19.3	22.5	15.8	62.4	6.9	34.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	58.5	18.0	18.0	17.5	48.5	18.0	18.0
Max Q Clear Time (g_c+I1), s	6.3	58.5	14.7	9.8	11.3	24.9	3.3	8.1
Green Ext Time (p_c), s	0.0	0.0	0.2	0.2	0.2	7.1	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	585	193	52	659	128	282	122	76	110	118	36
Future Volume (veh/h)	43	585	193	52	659	128	282	122	76	110	118	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	45	616	203	55	694	135	297	128	80	116	124	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	102	1305	582	112	698	591	328	546	463	155	268	82
Arrive On Green	0.06	0.36	0.36	0.06	0.37	0.37	0.18	0.29	0.29	0.09	0.19	0.19
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1384	424
Grp Volume(v), veh/h	45	616	203	55	694	135	297	128	80	116	0	162
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1808
Q Serve(g_s), s	2.4	13.2	9.3	3.0	36.7	5.8	16.2	5.2	3.7	6.3	0.0	7.9
Cycle Q Clear(g_c), s	2.4	13.2	9.3	3.0	36.7	5.8	16.2	5.2	3.7	6.3	0.0	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	102	1305	582	112	698	591	328	546	463	155	0	350
V/C Ratio(X)	0.44	0.47	0.35	0.49	0.99	0.23	0.91	0.23	0.17	0.75	0.00	0.46
Avail Cap(c_a), veh/h	144	1305	582	162	698	591	341	546	463	180	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.6	24.4	23.1	45.3	31.4	21.7	40.0	27.1	26.6	44.6	0.0	35.7
Incr Delay (d2), s/veh	1.1	0.5	0.7	1.2	32.8	0.4	25.4	1.0	0.8	10.9	0.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.4	3.4	1.3	21.4	2.1	9.1	2.4	1.5	3.2	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	24.9	23.8	46.5	64.2	22.0	65.4	28.1	27.4	55.6	0.0	40.1
LnGrp LOS	D	C	C	D	E	C	E	C	C	E	A	D
Approach Vol, veh/h		864			884			505			278	
Approach Delay, s/veh		25.8			56.6			49.9			46.5	
Approach LOS		C			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	25.0	9.7	43.0	12.6	34.7	10.3	42.4
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	19.0	16.3	8.0	37.0	10.0	25.3	9.0	36.0
Max Q Clear Time (g_c+I1), s	18.2	9.9	4.4	38.7	8.3	7.2	5.0	15.2
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.7	0.0	7.9

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map
Cumulative Year (2046) WP MIT - AM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	93	235	42	447	77	455	452	28	65	615	90
Future Volume (veh/h)	23	93	235	42	447	77	455	452	28	65	615	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	25	101	255	46	486	84	495	491	30	71	668	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	2	2	2	1	1	1	2	2	2
Cap, veh/h	65	529	448	87	540	457	554	1654	738	98	1789	555
Arrive On Green	0.04	0.28	0.28	0.05	0.29	0.29	0.05	0.15	0.15	0.06	0.35	0.35
Sat Flow, veh/h	1795	1885	1598	1781	1870	1585	3483	3582	1598	1781	5106	1585
Grp Volume(v), veh/h	25	101	255	46	486	84	495	491	30	71	668	98
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1781	1870	1585	1742	1791	1598	1781	1702	1585
Q Serve(g_s), s	1.8	5.5	18.5	3.4	33.7	5.4	19.1	16.4	2.2	5.3	13.2	5.8
Cycle Q Clear(g_c), s	1.8	5.5	18.5	3.4	33.7	5.4	19.1	16.4	2.2	5.3	13.2	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	65	529	448	87	540	457	554	1654	738	98	1789	555
V/C Ratio(X)	0.39	0.19	0.57	0.53	0.90	0.18	0.89	0.30	0.04	0.72	0.37	0.18
Avail Cap(c_a), veh/h	106	612	518	119	612	519	637	1654	738	158	1789	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	36.9	41.6	62.7	46.2	36.1	62.8	37.8	31.7	62.8	32.8	30.4
Incr Delay (d2), s/veh	1.4	0.4	2.7	1.9	16.3	0.3	11.1	0.4	0.1	3.7	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	7.6	1.6	18.1	2.1	9.8	7.9	0.9	2.4	5.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	37.3	44.3	64.6	62.5	36.4	73.9	38.2	31.8	66.5	33.4	31.1
LnGrp LOS	E	D	D	E	E	D	E	D	C	E	C	C
Approach Vol, veh/h		381			616			1016			837	
Approach Delay, s/veh		43.8			59.1			55.4			35.9	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.8	53.0	9.5	44.8	12.7	68.0	10.6	43.7
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	24.7	35.7	8.0	44.2	12.0	49.4	9.0	43.8
Max Q Clear Time (g_c+I1), s	21.1	15.2	3.8	35.7	7.3	18.4	5.4	20.5
Green Ext Time (p_c), s	0.4	9.2	0.0	3.3	0.0	7.6	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	48.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	419	286	311	645	254	390	916	321	263	1334	211
Future Volume (veh/h)	112	419	286	311	645	254	390	916	321	263	1334	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	122	455	311	338	701	276	424	996	349	286	1450	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	1	1	1
Cap, veh/h	267	755	337	384	871	388	442	2060	815	336	1926	589
Arrive On Green	0.08	0.21	0.21	0.11	0.25	0.25	0.13	0.41	0.41	0.10	0.37	0.37
Sat Flow, veh/h	3456	3554	1585	3428	3526	1571	3428	5066	1571	3483	5147	1575
Grp Volume(v), veh/h	122	455	311	338	701	276	424	996	349	286	1450	229
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1714	1763	1571	1714	1689	1571	1742	1716	1575
Q Serve(g_s), s	4.9	16.8	20.3	14.1	27.1	17.6	17.8	21.1	5.8	11.7	35.6	11.4
Cycle Q Clear(g_c), s	4.9	16.8	20.3	14.1	27.1	17.6	17.8	21.1	5.8	11.7	35.6	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	755	337	384	871	388	442	2060	815	336	1926	589
V/C Ratio(X)	0.46	0.60	0.92	0.88	0.80	0.71	0.96	0.48	0.43	0.85	0.75	0.39
Avail Cap(c_a), veh/h	462	1073	479	430	1065	474	442	2060	815	449	1926	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	64.0	51.6	29.6	63.4	51.3	28.6	62.8	31.8	7.9	64.5	39.5	18.1
Incr Delay (d2), s/veh	0.5	1.8	24.8	16.0	4.2	4.6	32.1	0.8	1.6	7.6	2.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.7	10.1	7.0	12.5	7.2	9.8	8.8	3.7	5.6	15.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	53.4	54.3	79.4	55.5	33.2	94.9	32.6	9.5	72.1	41.8	19.7
LnGrp LOS	E	D	D	E	E	C	F	C	A	E	D	B
Approach Vol, veh/h		888			1315			1769			1965	
Approach Delay, s/veh		55.2			57.0			43.0			43.7	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	60.0	18.0	42.0	20.3	64.7	23.1	37.0
Change Period (Y+Rc), s	6.3	5.7	6.8	* 6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	18.7	39.3	19.4	* 44	18.7	39.3	18.2	43.8
Max Q Clear Time (g_c+I1), s	19.8	37.6	6.9	29.1	13.7	23.1	16.1	22.3
Green Ext Time (p_c), s	0.0	1.6	0.1	6.7	0.3	12.7	0.2	8.3

Intersection Summary	
HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Minnewawa Avenue & International Avenue

Tract Map
Cumulative Year (2046) WP MIT - AM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	2	147	0	50	0	440	244	0	0	293	29
Future Volume (veh/h)	5	2	147	0	50	0	440	244	0	0	293	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	5	2	160	0	54	0	478	265	0	0	318	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	4	4	4	2	2	2
Cap, veh/h	49	6	201	0	249	0	521	1389	0	2	670	67
Arrive On Green	0.13	0.13	0.13	0.00	0.13	0.00	0.30	0.75	0.00	0.00	0.40	0.40
Sat Flow, veh/h	18	48	1511	0	1870	0	1753	1841	0	1781	1672	168
Grp Volume(v), veh/h	167	0	0	0	54	0	478	265	0	0	0	350
Grp Sat Flow(s),veh/h/ln	1577	0	0	0	1870	0	1753	1841	0	1781	0	1840
Q Serve(g_s), s	1.6	0.0	0.0	0.0	2.1	0.0	21.1	3.3	0.0	0.0	0.0	11.3
Cycle Q Clear(g_c), s	8.2	0.0	0.0	0.0	2.1	0.0	21.1	3.3	0.0	0.0	0.0	11.3
Prop In Lane	0.03		0.96	0.00		0.00	1.00		0.00	1.00		0.09
Lane Grp Cap(c), veh/h	256	0	0	0	249	0	521	1389	0	2	0	738
V/C Ratio(X)	0.65	0.00	0.00	0.00	0.22	0.00	0.92	0.19	0.00	0.00	0.00	0.47
Avail Cap(c_a), veh/h	400	0	0	0	421	0	603	1389	0	111	0	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	0.00	0.87	0.87	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	0.0	0.0	31.0	0.0	27.1	2.8	0.0	0.0	0.0	17.7
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.0	0.4	0.0	15.8	0.3	0.0	0.0	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	0.0	0.9	0.0	10.7	0.9	0.0	0.0	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	0.0	0.0	0.0	31.4	0.0	42.9	3.1	0.0	0.0	0.0	19.9
LnGrp LOS	D	A	A	A	C	A	D	A	A	A	A	B
Approach Vol, veh/h		167			54			743			350	
Approach Delay, s/veh		36.4			31.4			28.7			19.9	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	64.9		15.1	28.3	36.6		15.1
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.5	43.5		18.0	27.5	21.0		18.0
Max Q Clear Time (g_c+I1), s	10.3	5.3		10.2	23.1	13.3		4.1
Green Ext Time (p_c), s	0.0	1.7		0.5	0.7	1.2		0.1

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	133	96	43	526	380	115	269	12	166	589	8
Future Volume (veh/h)	3	133	96	43	526	380	115	269	12	166	589	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	3	145	104	47	572	413	125	292	13	180	640	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	4	4	4	4	4	4	2	2	2
Cap, veh/h	97	358	257	335	655	555	110	725	32	207	863	12
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.06	0.42	0.42	0.12	0.47	0.47
Sat Flow, veh/h	567	1005	721	1113	1841	1560	1753	1747	78	1781	1839	26
Grp Volume(v), veh/h	3	0	249	47	572	413	125	0	305	180	0	649
Grp Sat Flow(s),veh/h/ln	567	0	1726	1113	1841	1560	1753	0	1825	1781	0	1865
Q Serve(g_s), s	0.6	0.0	13.0	4.0	34.8	27.8	7.5	0.0	14.1	11.9	0.0	34.0
Cycle Q Clear(g_c), s	35.4	0.0	13.0	17.0	34.8	27.8	7.5	0.0	14.1	11.9	0.0	34.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.04	1.00		0.01
Lane Grp Cap(c), veh/h	97	0	614	335	655	555	110	0	758	207	0	875
V/C Ratio(X)	0.03	0.00	0.41	0.14	0.87	0.74	1.14	0.00	0.40	0.87	0.00	0.74
Avail Cap(c_a), veh/h	176	0	856	491	913	773	110	0	758	230	0	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.00	0.96	0.38	0.38	0.38	1.00	0.00	1.00	0.87	0.00	0.87
Uniform Delay (d), s/veh	52.7	0.0	29.1	35.5	36.1	33.8	56.3	0.0	24.6	52.1	0.0	25.9
Incr Delay (d2), s/veh	0.1	0.0	0.4	0.1	2.8	1.0	128.8	0.0	1.6	23.5	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	5.5	1.1	15.9	10.6	7.2	0.0	6.4	6.7	0.0	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	0.0	29.5	35.6	38.9	34.8	185.1	0.0	26.2	75.7	0.0	30.9
LnGrp LOS	D	A	C	D	D	C	F	A	C	E	A	C
Approach Vol, veh/h		252			1032			430			829	
Approach Delay, s/veh		29.8			37.1			72.4			40.6	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.5	54.3		47.2	12.0	60.8		47.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.5	31.5		59.5	7.5	39.5		59.5
Max Q Clear Time (g_c+I1), s	13.9	16.1		37.4	9.5	36.0		36.8
Green Ext Time (p_c), s	0.1	1.6		1.5	0.0	1.4		5.9

Intersection Summary		
HCM 6th Ctrl Delay	43.5	
HCM 6th LOS	D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	699	364	152	754	140	218	310	92	331	892	123
Future Volume (veh/h)	88	699	364	152	754	140	218	310	92	331	892	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	760	396	165	820	152	237	337	100	360	970	134
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	3	3	3	2	2	2	2	2	2
Cap, veh/h	111	932	667	188	904	168	281	784	350	489	1201	536
Arrive On Green	0.06	0.26	0.26	0.11	0.30	0.30	0.16	0.22	0.22	0.27	0.34	0.34
Sat Flow, veh/h	1795	3582	1598	1767	2969	550	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	96	760	396	165	487	485	237	337	100	360	970	134
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1767	1763	1756	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.7	28.9	6.4	13.3	38.5	38.5	18.7	11.8	5.9	26.6	36.0	7.1
Cycle Q Clear(g_c), s	7.7	28.9	6.4	13.3	38.5	38.5	18.7	11.8	5.9	26.6	36.0	7.1
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	932	667	188	537	535	281	784	350	489	1201	536
V/C Ratio(X)	0.86	0.82	0.59	0.88	0.91	0.91	0.84	0.43	0.29	0.74	0.81	0.25
Avail Cap(c_a), veh/h	111	932	667	280	559	557	281	784	350	489	1201	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.4	50.4	15.6	63.8	48.4	48.4	59.4	48.6	28.2	47.8	43.7	22.3
Incr Delay (d2), s/veh	43.9	6.0	1.8	13.3	18.8	18.8	19.5	1.7	2.0	5.0	5.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	13.8	6.8	6.7	19.7	19.6	10.0	5.5	3.2	12.6	16.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.3	56.4	17.4	77.1	67.2	67.3	78.9	50.4	30.3	52.8	49.6	23.5
LnGrp LOS	F	E	B	E	E	E	E	D	C	D	D	C
Approach Vol, veh/h		1252			1137			674			1464	
Approach Delay, s/veh		48.3			68.7			57.4			48.0	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	55.0	13.0	50.2	43.8	38.0	19.5	43.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	21.0	49.0	9.0	46.0	38.0	32.0	23.0	32.0
Max Q Clear Time (g_c+I1), s	20.7	38.0	9.7	40.5	28.6	13.8	15.3	30.9
Green Ext Time (p_c), s	0.0	6.6	0.0	3.7	0.4	2.5	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	273	171	211	589	217	118	172	53	164	450	33
Future Volume (veh/h)	18	273	171	211	589	217	118	172	53	164	450	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	297	186	229	640	236	128	187	58	178	489	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	4	4	4	0	0	0	0	0	0
Cap, veh/h	39	433	367	265	668	566	151	414	128	213	581	43
Arrive On Green	0.02	0.23	0.23	0.15	0.36	0.36	0.08	0.30	0.30	0.12	0.33	0.33
Sat Flow, veh/h	1767	1856	1572	1753	1841	1560	1810	1391	431	1810	1748	129
Grp Volume(v), veh/h	20	297	186	229	640	236	128	0	245	178	0	525
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1753	1841	1560	1810	0	1822	1810	0	1877
Q Serve(g_s), s	1.0	13.1	9.3	11.5	30.6	10.2	6.3	0.0	9.8	8.7	0.0	23.3
Cycle Q Clear(g_c), s	1.0	13.1	9.3	11.5	30.6	10.2	6.3	0.0	9.8	8.7	0.0	23.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.07
Lane Grp Cap(c), veh/h	39	433	367	265	668	566	151	0	542	213	0	623
V/C Ratio(X)	0.52	0.69	0.51	0.86	0.96	0.42	0.85	0.00	0.45	0.83	0.00	0.84
Avail Cap(c_a), veh/h	98	449	381	310	669	567	151	0	542	247	0	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.39	0.39	0.39	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	31.5	30.0	37.3	28.0	21.5	40.7	0.0	25.7	38.8	0.0	27.9
Incr Delay (d2), s/veh	8.8	3.5	0.9	8.8	13.3	0.2	34.1	0.0	2.7	19.0	0.0	13.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.2	3.5	5.5	15.3	3.7	4.2	0.0	4.6	4.9	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	35.0	30.9	46.1	41.3	21.7	74.8	0.0	28.4	57.8	0.0	40.9
LnGrp LOS	D	C	C	D	D	C	E	A	C	E	A	D
Approach Vol, veh/h		503			1105			373			703	
Approach Delay, s/veh		34.2			38.1			44.3			45.2	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	31.3	18.1	25.5	12.0	34.4	6.5	37.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.3	22.0	15.9	21.8	7.5	26.8	5.0	32.7
Max Q Clear Time (g_c+I1), s	10.7	11.8	13.5	15.1	8.3	25.3	3.0	32.6
Green Ext Time (p_c), s	0.1	1.0	0.2	1.4	0.0	0.5	0.0	0.1

Intersection Summary		
HCM 6th Ctrl Delay		40.1
HCM 6th LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	330	0	36	87	0	455	180	30	826	0
Future Volume (veh/h)	0	0	0	330	0	36	87	0	455	180	30	826	0
Initial Q (Qb), veh				0	0	0		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00		1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No				No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900		0	1767	1767	1900	1900	0
Adj Flow Rate, veh/h				359	0	39		0	495	196	33	898	0
Peak Hour Factor				0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0		0	9	9	0	0	0
Cap, veh/h				411	0	365		0	1010	856	59	2384	0
Arrive On Green				0.23	0.00	0.23		0.00	0.57	0.57	0.03	0.66	0.00
Sat Flow, veh/h				1810	0	1610		0	1767	1497	1810	3705	0
Grp Volume(v), veh/h				359	0	39		0	495	196	33	898	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610		0	1767	1497	1810	1805	0
Q Serve(g_s), s				15.3	0.0	1.5		0.0	13.3	5.2	1.4	9.0	0.0
Cycle Q Clear(g_c), s				15.3	0.0	1.5		0.0	13.3	5.2	1.4	9.0	0.0
Prop In Lane				1.00		1.00		0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				411	0	365		0	1010	856	59	2384	0
V/C Ratio(X)				0.87	0.00	0.11		0.00	0.49	0.23	0.56	0.38	0.00
Avail Cap(c_a), veh/h				586	0	521		0	1010	856	129	2384	0
HCM Platoon Ratio				1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00		0.00	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh				29.8	0.0	24.5		0.0	10.2	8.4	38.1	6.1	0.0
Incr Delay (d2), s/veh				10.1	0.0	0.1		0.0	1.6	0.6	8.1	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.6	0.0	0.6		0.0	5.0	1.6	0.8	2.9	0.0
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh				40.0	0.0	24.6		0.0	11.8	9.0	46.3	6.6	0.0
LnGrp LOS				D	A	C		A	B	A	D	A	A
Approach Vol, veh/h					398				691			931	
Approach Delay, s/veh					38.4				11.0			8.0	
Approach LOS					D				B			A	

Timer - Assigned Phs	1	2			6		8					
Phs Duration (G+Y+Rc), s	7.1	50.2			57.3		22.7					
Change Period (Y+Rc), s	4.5	4.5			4.5		4.5					
Max Green Setting (Gmax), s	5.7	34.9			30.9		25.9					
Max Q Clear Time (g_c+I1), s	3.4	15.3			11.0		17.3					
Green Ext Time (p_c), s	0.0	3.8			6.4		0.9					

Intersection Summary		
HCM 6th Ctrl Delay	15.0	
HCM 6th LOS	B	

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	716	210	318	675	166	117	197	173	159	597	286
Future Volume (veh/h)	110	716	210	318	675	166	117	197	173	159	597	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1826	1826	1826
Adj Flow Rate, veh/h	120	778	228	346	734	180	127	214	188	173	649	311
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	5	5	5
Cap, veh/h	243	842	370	401	1010	450	150	1048	468	588	1366	609
Arrive On Green	0.07	0.24	0.24	0.12	0.28	0.28	0.09	0.31	0.31	0.17	0.39	0.39
Sat Flow, veh/h	3428	3526	1548	3456	3554	1585	1711	3413	1522	3374	3469	1546
Grp Volume(v), veh/h	120	778	228	346	734	180	127	214	188	173	649	311
Grp Sat Flow(s),veh/h/ln	1714	1763	1548	1728	1777	1585	1711	1706	1522	1687	1735	1546
Q Serve(g_s), s	4.7	30.2	18.4	13.8	26.1	12.8	10.2	6.5	13.7	6.2	19.5	21.4
Cycle Q Clear(g_c), s	4.7	30.2	18.4	13.8	26.1	12.8	10.2	6.5	13.7	6.2	19.5	21.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	842	370	401	1010	450	150	1048	468	588	1366	609
V/C Ratio(X)	0.49	0.92	0.62	0.86	0.73	0.40	0.85	0.20	0.40	0.29	0.48	0.51
Avail Cap(c_a), veh/h	598	856	376	602	1010	450	298	1048	468	588	1366	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.79	0.79	0.79
Uniform Delay (d), s/veh	62.6	52.0	47.5	60.8	45.2	40.5	62.9	35.8	38.3	50.3	31.6	32.2
Incr Delay (d2), s/veh	0.6	15.6	3.6	5.6	2.9	0.8	4.9	0.4	2.5	1.0	0.9	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	15.2	7.5	6.4	12.0	5.2	4.7	2.8	5.5	2.7	8.4	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	67.6	51.1	66.4	48.1	41.3	67.8	36.3	40.8	51.3	32.6	34.6
LnGrp LOS	E	E	D	E	D	D	E	D	D	D	C	C
Approach Vol, veh/h		1126			1260			529			1133	
Approach Delay, s/veh		63.8			52.2			45.5			36.0	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	60.8	15.5	45.8	30.0	48.7	21.8	39.5
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	24.4	34.3	24.4	34.0	24.4	34.3	24.4	34.0
Max Q Clear Time (g_c+I1), s	12.2	23.4	6.7	28.1	8.2	15.7	15.8	32.2
Green Ext Time (p_c), s	0.1	8.0	0.2	3.5	0.3	3.7	0.5	1.3

Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	400	358	37	471	233	161	467	21	115	852	136
Future Volume (veh/h)	71	400	358	37	471	233	161	467	21	115	852	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	77	435	389	40	512	253	175	508	23	125	926	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	141	589	499	108	558	472	194	1239	539	155	1168	507
Arrive On Green	0.08	0.31	0.31	0.06	0.30	0.30	0.11	0.35	0.35	0.09	0.33	0.33
Sat Flow, veh/h	1781	1870	1585	1795	1885	1596	1767	3526	1533	1781	3554	1543
Grp Volume(v), veh/h	77	435	389	40	512	253	175	508	23	125	926	148
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1795	1885	1596	1767	1763	1533	1781	1777	1543
Q Serve(g_s), s	4.2	20.8	22.3	2.1	26.3	13.3	9.8	10.9	1.0	6.9	23.7	7.1
Cycle Q Clear(g_c), s	4.2	20.8	22.3	2.1	26.3	13.3	9.8	10.9	1.0	6.9	23.7	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	589	499	108	558	472	194	1239	539	155	1168	507
V/C Ratio(X)	0.54	0.74	0.78	0.37	0.92	0.54	0.90	0.41	0.04	0.80	0.79	0.29
Avail Cap(c_a), veh/h	160	589	499	162	579	490	194	1239	539	178	1168	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	30.6	31.1	45.2	34.0	29.5	44.0	24.6	21.3	44.8	30.5	24.9
Incr Delay (d2), s/veh	1.2	5.4	8.3	0.8	19.8	1.5	34.9	0.9	0.1	17.9	5.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	10.0	9.5	1.0	14.8	5.2	6.1	4.6	0.4	3.8	10.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	35.9	39.4	45.9	53.8	31.0	78.9	25.5	21.5	62.7	36.0	26.4
LnGrp LOS	D	D	D	D	D	C	E	C	C	E	D	C
Approach Vol, veh/h		901			805			706			1199	
Approach Delay, s/veh		38.2			46.3			38.6			37.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	38.2	11.9	34.9	12.7	40.5	10.0	36.8
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	11.0	30.7	9.0	30.7	10.0	31.7	9.0	30.7
Max Q Clear Time (g_c+I1), s	11.3	25.7	6.2	28.3	8.9	12.9	4.1	24.3
Green Ext Time (p_c), s	0.0	3.5	0.0	1.3	0.0	4.8	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	292	193	46	419	109	279	523	91	162	1132	63
Future Volume (veh/h)	16	292	193	46	419	109	279	523	91	162	1132	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1870	1870	1870	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	17	317	210	50	455	118	303	568	99	176	1230	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	5	2	2	2	3	3	3	1	1	1
Cap, veh/h	62	435	368	117	502	426	283	1280	222	202	1311	72
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.16	0.43	0.43	0.11	0.38	0.38
Sat Flow, veh/h	1739	1826	1545	1781	1870	1585	1767	2992	520	1795	3446	190
Grp Volume(v), veh/h	17	317	210	50	455	118	303	334	333	176	638	660
Grp Sat Flow(s),veh/h/ln	1739	1826	1545	1781	1870	1585	1767	1763	1749	1795	1791	1846
Q Serve(g_s), s	1.2	20.0	15.0	3.4	29.4	7.4	20.0	16.7	16.8	12.1	42.9	43.1
Cycle Q Clear(g_c), s	1.2	20.0	15.0	3.4	29.4	7.4	20.0	16.7	16.8	12.1	42.9	43.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.10
Lane Grp Cap(c), veh/h	62	435	368	117	502	426	283	754	748	202	681	702
V/C Ratio(X)	0.27	0.73	0.57	0.43	0.91	0.28	1.07	0.44	0.45	0.87	0.94	0.94
Avail Cap(c_a), veh/h	153	574	486	157	588	498	283	754	748	230	681	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	58.7	43.9	42.0	56.1	44.2	36.1	52.5	25.2	25.3	54.6	37.3	37.3
Incr Delay (d2), s/veh	0.9	2.6	0.9	0.9	16.3	0.4	73.8	1.9	1.9	17.6	16.6	16.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	9.4	5.8	1.5	15.8	2.9	14.6	7.4	7.4	6.4	21.6	22.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	46.4	42.9	57.0	60.4	36.5	126.3	27.1	27.2	72.1	53.9	53.8
LnGrp LOS	E	D	D	E	E	D	F	C	C	E	D	D
Approach Vol, veh/h		544			623			970			1474	
Approach Delay, s/veh		45.5			55.6			58.1			56.0	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	53.3	8.5	39.3	18.1	59.2	12.2	35.5
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	10.0	35.3	11.0	39.3	16.0	39.3	11.0	39.3
Max Q Clear Time (g_c+I1), s	22.0	45.1	3.2	31.4	14.1	18.8	5.4	22.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	4.7	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	936	364	196	1112	186	380	454	158	206	479	721
Future Volume (veh/h)	410	936	364	196	1112	186	380	454	158	206	479	721
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	441	1006	391	211	1196	200	409	488	170	222	515	775
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	1	1	1
Cap, veh/h	583	1886	864	345	1504	467	611	1100	369	375	1148	1105
Arrive On Green	0.34	0.74	0.74	0.10	0.29	0.29	0.18	0.29	0.29	0.11	0.22	0.22
Sat Flow, veh/h	3428	5066	1572	3456	5106	1585	3456	3763	1263	3483	5147	2812
Grp Volume(v), veh/h	441	1006	391	211	1196	200	409	440	218	222	515	775
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1728	1702	1585	1728	1702	1622	1742	1716	1406
Q Serve(g_s), s	14.9	10.9	3.6	7.6	28.0	13.2	14.4	13.6	14.3	7.9	11.2	7.9
Cycle Q Clear(g_c), s	14.9	10.9	3.6	7.6	28.0	13.2	14.4	13.6	14.3	7.9	11.2	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	583	1886	864	345	1504	467	611	995	474	375	1148	1105
V/C Ratio(X)	0.76	0.53	0.45	0.61	0.80	0.43	0.67	0.44	0.46	0.59	0.45	0.70
Avail Cap(c_a), veh/h	583	1886	864	346	1504	467	611	995	474	375	1148	1105
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	11.8	2.7	56.1	42.2	37.0	50.0	37.4	37.6	55.3	43.6	33.1
Incr Delay (d2), s/veh	4.3	0.9	1.4	2.3	4.4	2.9	2.3	1.4	3.2	1.7	1.3	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	3.1	1.5	3.4	12.4	5.5	6.4	5.9	6.1	3.6	4.9	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	12.7	4.1	58.4	46.7	39.9	52.2	38.8	40.8	57.0	44.9	36.8
LnGrp LOS	D	B	A	E	D	D	D	D	D	E	D	D
Approach Vol, veh/h		1838			1607			1067			1512	
Approach Delay, s/veh		18.6			47.4			44.4			42.5	
Approach LOS		B			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.1	44.3	19.0	43.7	18.0	54.4	28.0	34.7
Change Period (Y+Rc), s	6.0	* 6	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	18.0	* 38	14.0	38.0	13.0	43.3	23.0	29.0
Max Q Clear Time (g_c+I1), s	16.9	30.0	9.9	16.3	9.6	12.9	16.4	13.2
Green Ext Time (p_c), s	0.1	4.8	0.2	2.8	0.1	10.5	0.5	7.1

Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	261	166	19	541	225	22
Future Volume (veh/h)	261	166	19	541	225	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1856	1841	1841	1900	1900
Adj Flow Rate, veh/h	284	180	21	588	245	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	4	4	0	0
Cap, veh/h	306	194	23	647	288	28
Arrive On Green	0.29	0.29	0.36	0.36	0.18	0.18
Sat Flow, veh/h	1062	673	63	1774	1624	159
Grp Volume(v), veh/h	0	464	609	0	270	0
Grp Sat Flow(s),veh/h/ln	0	1734	1838	0	1790	0
Q Serve(g_s), s	0.0	20.6	25.0	0.0	11.6	0.0
Cycle Q Clear(g_c), s	0.0	20.6	25.0	0.0	11.6	0.0
Prop In Lane		0.39	0.03		0.91	0.09
Lane Grp Cap(c), veh/h	0	500	670	0	317	0
V/C Ratio(X)	0.00	0.93	0.91	0.00	0.85	0.00
Avail Cap(c_a), veh/h	0	513	752	0	462	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	27.4	24.0	0.0	31.7	0.0
Incr Delay (d2), s/veh	0.0	22.9	14.1	0.0	9.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.3	12.8	0.0	5.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	50.4	38.1	0.0	41.6	0.0
LnGrp LOS	A	D	D	A	D	A
Approach Vol, veh/h	464			609	270	
Approach Delay, s/veh	50.4			38.1	41.6	
Approach LOS	D			D	D	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	18.6	27.4	33.4
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	23.5	32.5
Max Q Clear Time (g_c+I1), s	13.6	22.6	27.0
Green Ext Time (p_c), s	0.5	0.3	1.9

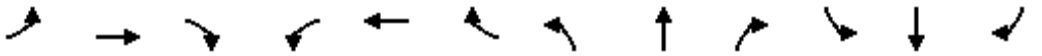
Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
18: Sunnyside Avenue & Shepherd Avenue

Tract Map
Cumulative Year (2046) WP MIT - AM Pk Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	774	204	69	750	99	115	86	51	332	441	479
Future Volume (veh/h)	222	774	204	69	750	99	115	86	51	332	441	479
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	227	790	208	70	765	101	117	88	52	339	450	489
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	1	1	1	0	0	0	0	0	0
Cap, veh/h	255	1190	531	132	955	746	152	224	132	362	600	741
Arrive On Green	0.14	0.34	0.34	0.07	0.27	0.27	0.08	0.20	0.20	0.20	0.32	0.32
Sat Flow, veh/h	1767	3526	1572	1795	3582	1598	1810	1119	661	1810	1900	1610
Grp Volume(v), veh/h	227	790	208	70	765	101	117	0	140	339	450	489
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1795	1791	1598	1810	0	1781	1810	1900	1610
Q Serve(g_s), s	11.3	17.2	9.1	3.4	17.9	3.2	5.7	0.0	6.1	16.6	19.1	21.2
Cycle Q Clear(g_c), s	11.3	17.2	9.1	3.4	17.9	3.2	5.7	0.0	6.1	16.6	19.1	21.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	255	1190	531	132	955	746	152	0	356	362	600	741
V/C Ratio(X)	0.89	0.66	0.39	0.53	0.80	0.14	0.77	0.00	0.39	0.94	0.75	0.66
Avail Cap(c_a), veh/h	255	1190	531	160	955	746	161	0	356	362	600	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	25.4	22.7	40.2	30.8	13.7	40.4	0.0	31.3	35.4	27.6	18.8
Incr Delay (d2), s/veh	29.4	2.9	2.2	3.3	7.0	0.4	19.0	0.0	3.2	31.5	8.4	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	7.5	3.6	1.6	8.4	1.2	3.3	0.0	2.9	10.3	9.8	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	28.4	24.9	43.5	37.8	14.0	59.4	0.0	34.5	66.9	36.0	23.4
LnGrp LOS	E	C	C	D	D	B	E	A	C	E	D	C
Approach Vol, veh/h		1225			936			257			1278	
Approach Delay, s/veh		35.0			35.7			45.8			39.4	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	34.9	11.6	32.9	17.0	28.5	22.0	22.5
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	8.0	29.0	8.0	28.0	13.0	24.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	5.4	19.2	7.7	23.2	13.3	19.9	18.6	8.1
Green Ext Time (p_c), s	0.0	4.3	0.0	2.1	0.0	2.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	703	329	75	469	386	217	100	40	342	518	32
Future Volume (veh/h)	53	703	329	75	469	386	217	100	40	342	518	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1841	1841	1841
Adj Flow Rate, veh/h	55	732	343	78	489	402	226	104	42	356	540	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	118	1055	470	136	573	486	178	347	294	390	529	32
Arrive On Green	0.07	0.30	0.30	0.08	0.31	0.31	0.10	0.19	0.19	0.22	0.31	0.31
Sat Flow, veh/h	1781	3554	1585	1781	1870	1585	1781	1870	1585	1753	1717	105
Grp Volume(v), veh/h	55	732	343	78	489	402	226	104	42	356	0	573
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1870	1585	1753	0	1822
Q Serve(g_s), s	2.7	16.4	17.5	3.8	22.1	21.2	9.0	4.3	2.0	17.8	0.0	27.7
Cycle Q Clear(g_c), s	2.7	16.4	17.5	3.8	22.1	21.2	9.0	4.3	2.0	17.8	0.0	27.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	118	1055	470	136	573	486	178	347	294	390	0	561
V/C Ratio(X)	0.46	0.69	0.73	0.57	0.85	0.83	1.27	0.30	0.14	0.91	0.00	1.02
Avail Cap(c_a), veh/h	158	1185	528	158	623	528	178	347	294	448	0	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.5	28.0	28.4	40.2	29.3	29.0	40.5	31.6	30.7	34.1	0.0	31.1
Incr Delay (d2), s/veh	1.1	2.1	5.7	1.4	11.5	11.1	157.6	2.2	1.0	19.9	0.0	43.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.1	7.2	1.7	11.4	9.3	11.7	2.1	0.8	9.5	0.0	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	30.1	34.1	41.6	40.8	40.1	198.1	33.8	31.7	54.0	0.0	74.5
LnGrp LOS	D	C	C	D	D	D	F	C	C	D	A	F
Approach Vol, veh/h		1130			969			372			929	
Approach Delay, s/veh		31.9			40.6			133.4			66.6	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	33.4	10.0	33.6	24.0	22.4	10.9	32.7
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	9.0	23.3	8.0	30.0	23.0	9.3	8.0	30.0
Max Q Clear Time (g_c+I1), s	11.0	29.7	4.7	24.1	19.8	6.3	5.8	19.5
Green Ext Time (p_c), s	0.0	0.0	0.0	3.5	0.2	0.2	0.0	6.6

Intersection Summary	
HCM 6th Ctrl Delay	55.0
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Willow Avenue & International Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	125	196	17	103	56	176	626	73	67	490	12
Future Volume (veh/h)	9	125	196	17	103	56	176	626	73	67	490	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	10	136	213	18	112	61	191	680	79	73	533	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	0	0	1	1	1
Cap, veh/h	33	316	267	52	327	277	242	2140	954	100	2943	913
Arrive On Green	0.02	0.17	0.17	0.03	0.17	0.17	0.09	0.79	0.79	0.06	0.57	0.57
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	3510	3610	1610	1795	5147	1598
Grp Volume(v), veh/h	10	136	213	18	112	61	191	680	79	73	533	13
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1755	1805	1610	1795	1716	1598
Q Serve(g_s), s	0.7	8.8	17.4	1.3	7.1	4.5	7.2	7.2	1.5	5.4	6.7	0.5
Cycle Q Clear(g_c), s	0.7	8.8	17.4	1.3	7.1	4.5	7.2	7.2	1.5	5.4	6.7	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	316	267	52	327	277	242	2140	954	100	2943	913
V/C Ratio(X)	0.30	0.43	0.80	0.35	0.34	0.22	0.79	0.32	0.08	0.73	0.18	0.01
Avail Cap(c_a), veh/h	203	612	519	211	612	519	356	2140	954	196	2943	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	50.3	53.9	64.3	48.9	47.8	60.3	6.6	6.0	62.8	13.8	12.5
Incr Delay (d2), s/veh	1.9	2.2	11.9	1.5	1.1	0.7	3.8	0.4	0.2	3.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.3	7.8	0.6	3.4	1.8	3.2	2.4	0.6	2.5	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	52.5	65.8	65.8	49.9	48.5	64.1	7.0	6.1	66.6	13.9	12.5
LnGrp LOS	E	D	E	E	D	D	E	A	A	E	B	B
Approach Vol, veh/h		359			191			950			619	
Approach Delay, s/veh		60.8			51.0			18.4			20.1	
Approach LOS		E			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	82.9	7.1	29.4	12.8	85.7	7.9	28.6
Change Period (Y+Rc), s	6.3	5.7	4.6	5.8	5.3	5.7	4.0	5.8
Max Green Setting (Gmax), s	13.7	39.3	15.4	44.2	14.7	39.3	16.0	44.2
Max Q Clear Time (g_c+I1), s	9.2	8.7	2.7	9.1	7.4	9.2	3.3	19.4
Green Ext Time (p_c), s	0.1	8.1	0.0	1.5	0.0	11.4	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	719	387	357	621	318	293	1451	495	344	1051	207
Future Volume (veh/h)	265	719	387	357	621	318	293	1451	495	344	1051	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	282	765	412	380	661	338	312	1544	527	366	1118	220
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	332	971	599	416	1088	485	362	1702	719	389	1733	530
Arrive On Green	0.09	0.27	0.27	0.12	0.30	0.30	0.10	0.33	0.33	0.11	0.34	0.34
Sat Flow, veh/h	3510	3610	1610	3510	3610	1609	3510	5187	1609	3483	5147	1575
Grp Volume(v), veh/h	282	765	412	380	661	338	312	1544	527	366	1118	220
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1609	1755	1729	1609	1742	1716	1575
Q Serve(g_s), s	11.5	28.5	31.3	15.5	22.7	26.9	12.7	41.3	39.1	15.1	26.7	15.6
Cycle Q Clear(g_c), s	11.5	28.5	31.3	15.5	22.7	26.9	12.7	41.3	39.1	15.1	26.7	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	971	599	416	1088	485	362	1702	719	389	1733	530
V/C Ratio(X)	0.85	0.79	0.69	0.91	0.61	0.70	0.86	0.91	0.73	0.94	0.65	0.41
Avail Cap(c_a), veh/h	438	1021	621	416	1088	485	477	1702	719	389	1733	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	64.6	49.1	38.4	63.2	43.3	44.8	64.0	46.6	33.0	63.9	40.7	37.1
Incr Delay (d2), s/veh	9.3	4.9	4.3	23.6	1.1	4.7	9.7	8.6	6.5	28.8	1.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	13.3	12.9	8.1	10.0	11.2	6.0	18.4	16.1	8.1	11.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	54.1	42.7	86.8	44.4	49.5	73.7	55.2	39.5	92.8	42.5	39.3
LnGrp LOS	E	D	D	F	D	D	E	E	D	F	D	D
Approach Vol, veh/h		1459			1379			2383			1704	
Approach Delay, s/veh		54.7			57.4			54.1			52.9	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	54.5	19.3	49.9	22.5	53.3	24.0	45.2
Change Period (Y+Rc), s	6.3	5.7	5.6	6.2	6.3	5.7	6.8	6.2
Max Green Setting (Gmax), s	15.0	42.1	18.1	41.3	16.2	45.6	17.2	41.0
Max Q Clear Time (g_c+I1), s	14.7	28.7	13.5	28.9	17.1	43.3	17.5	33.3
Green Ext Time (p_c), s	0.3	10.5	0.2	5.5	0.0	2.3	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
4: Minnewawa Avenue & International Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2	158	0	2	0	176	258	37	0	275	30
Future Volume (veh/h)	70	2	158	0	2	0	176	258	37	0	275	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	76	2	172	0	2	0	191	280	40	0	299	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	1	1	1
Cap, veh/h	132	18	202	0	348	0	234	1131	162	2	858	95
Arrive On Green	0.19	0.19	0.19	0.00	0.19	0.00	0.13	0.70	0.70	0.00	0.51	0.51
Sat Flow, veh/h	393	99	1086	0	1870	0	1795	1613	230	1795	1668	184
Grp Volume(v), veh/h	250	0	0	0	2	0	191	0	320	0	0	332
Grp Sat Flow(s),veh/h/ln	1578	0	0	0	1870	0	1795	0	1844	1795	0	1852
Q Serve(g_s), s	9.7	0.0	0.0	0.0	0.1	0.0	8.3	0.0	5.0	0.0	0.0	8.5
Cycle Q Clear(g_c), s	12.2	0.0	0.0	0.0	0.1	0.0	8.3	0.0	5.0	0.0	0.0	8.5
Prop In Lane	0.30		0.69	0.00		0.00	1.00		0.13	1.00		0.10
Lane Grp Cap(c), veh/h	352	0	0	0	348	0	234	0	1293	2	0	953
V/C Ratio(X)	0.71	0.00	0.00	0.00	0.01	0.00	0.81	0.00	0.25	0.00	0.00	0.35
Avail Cap(c_a), veh/h	461	0	0	0	479	0	415	0	1293	112	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	0.00	0.69	0.00	0.69	0.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	0.0	0.0	26.5	0.0	33.8	0.0	4.3	0.0	0.0	11.5
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.3	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	0.0	0.0	0.0	3.8	0.0	1.6	0.0	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.0	0.0	0.0	26.5	0.0	38.6	0.0	4.6	0.0	0.0	12.5
LnGrp LOS	C	A	A	A	C	A	D	A	A	A	A	B
Approach Vol, veh/h		250			2			511			332	
Approach Delay, s/veh		34.8			26.5			17.3			12.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	60.6		19.4	14.9	45.7		19.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	41.0		20.5	18.5	27.5		20.5				
Max Q Clear Time (g_c+I1), s	10.3	7.0		14.2	10.3	10.5		2.1				
Green Ext Time (p_c), s	0.0	2.1		0.7	0.3	1.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	19.9	
HCM 6th LOS	B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	374	101	18	218	160	149	430	28	203	254	3
Future Volume (veh/h)	7	374	101	18	218	160	149	430	28	203	254	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	8	407	110	20	237	174	162	467	30	221	276	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	326	441	119	150	586	496	203	570	37	254	658	7
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.11	0.32	0.32	0.14	0.35	0.35
Sat Flow, veh/h	983	1429	386	898	1900	1610	1795	1752	113	1795	1861	20
Grp Volume(v), veh/h	8	0	517	20	237	174	162	0	497	221	0	279
Grp Sat Flow(s),veh/h/ln	983	0	1816	898	1900	1610	1795	0	1865	1795	0	1882
Q Serve(g_s), s	0.4	0.0	16.5	1.3	5.9	5.0	5.3	0.0	14.7	7.2	0.0	6.8
Cycle Q Clear(g_c), s	6.3	0.0	16.5	17.8	5.9	5.0	5.3	0.0	14.7	7.2	0.0	6.8
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.06	1.00		0.01
Lane Grp Cap(c), veh/h	326	0	560	150	586	496	203	0	606	254	0	665
V/C Ratio(X)	0.02	0.00	0.92	0.13	0.40	0.35	0.80	0.00	0.82	0.87	0.00	0.42
Avail Cap(c_a), veh/h	326	0	560	150	586	496	224	0	606	254	0	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89	0.77	0.77	0.77	1.00	0.00	1.00	0.95	0.00	0.95
Uniform Delay (d), s/veh	18.9	0.0	20.1	28.7	16.4	16.1	25.9	0.0	18.6	25.2	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.0	19.4	0.3	0.3	0.3	16.5	0.0	11.8	24.9	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	9.3	0.3	2.4	1.7	3.1	0.0	7.6	4.6	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	0.0	39.5	29.0	16.7	16.4	42.5	0.0	30.4	50.1	0.0	16.6
LnGrp LOS	B	A	D	C	B	B	D	A	C	D	A	B
Approach Vol, veh/h		525			431			659			500	
Approach Delay, s/veh		39.2			17.2			33.4			31.4	
Approach LOS		D			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	24.0		23.0	11.3	25.7		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	19.5		18.5	7.5	20.5		18.5				
Max Q Clear Time (g_c+I1), s	9.2	16.7		18.5	7.3	8.8		19.8				
Green Ext Time (p_c), s	0.0	0.9		0.0	0.0	1.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	31.1	
HCM 6th LOS	C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	1022	218	108	907	211	313	681	154	159	504	108
Future Volume (veh/h)	144	1022	218	108	907	211	313	681	154	159	504	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	155	1099	234	116	975	227	337	732	166	171	542	116
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	161	1307	892	138	983	228	347	2799	1249	194	2494	1113
Arrive On Green	0.09	0.36	0.36	0.08	0.34	0.34	0.19	0.78	0.78	0.11	0.70	0.70
Sat Flow, veh/h	1795	3582	1598	1810	2908	676	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	155	1099	234	116	604	598	337	732	166	171	542	116
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1805	1778	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	12.5	40.8	11.0	9.2	48.3	48.6	27.0	8.1	3.7	13.6	7.8	6.8
Cycle Q Clear(g_c), s	12.5	40.8	11.0	9.2	48.3	48.6	27.0	8.1	3.7	13.6	7.8	6.8
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	1307	892	138	610	601	347	2799	1249	194	2494	1113
V/C Ratio(X)	0.96	0.84	0.26	0.84	0.99	0.99	0.97	0.26	0.13	0.88	0.22	0.10
Avail Cap(c_a), veh/h	161	1307	892	150	610	601	347	2799	1249	223	2494	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.8	42.2	16.6	66.1	47.8	47.9	58.1	4.3	3.9	63.8	7.9	28.1
Incr Delay (d2), s/veh	59.4	5.3	0.2	28.5	34.1	35.2	40.5	0.2	0.2	26.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	18.2	3.9	5.2	26.5	26.5	15.9	2.5	1.0	7.7	3.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	125.1	47.5	16.8	94.6	81.8	83.1	98.7	4.6	4.1	90.3	8.1	28.3
LnGrp LOS	F	D	B	F	F	F	F	A	A	F	A	C
Approach Vol, veh/h		1488			1318			1235			829	
Approach Delay, s/veh		50.8			83.5			30.2			27.9	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	109.0	19.0	55.0	19.7	121.3	15.1	58.9
Change Period (Y+Rc), s	4.0	6.0	6.0	* 6	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	28.0	35.0	13.0	* 49	18.0	45.0	12.0	50.0
Max Q Clear Time (g_c+I1), s	29.0	9.8	14.5	50.6	15.6	10.1	11.2	42.8
Green Ext Time (p_c), s	0.0	6.0	0.0	0.0	0.1	6.3	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	50.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	360	80	46	243	112	178	522	139	176	384	10
Future Volume (veh/h)	11	360	80	46	243	112	178	522	139	176	384	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	391	87	50	264	122	193	567	151	191	417	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	433	367	68	481	407	226	632	168	210	788	21
Arrive On Green	0.01	0.23	0.23	0.04	0.25	0.25	0.13	0.44	0.44	0.12	0.43	0.43
Sat Flow, veh/h	1795	1885	1598	1810	1900	1610	1810	1446	385	1810	1843	49
Grp Volume(v), veh/h	12	391	87	50	264	122	193	0	718	191	0	428
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1810	1900	1610	1810	0	1831	1810	0	1891
Q Serve(g_s), s	0.7	20.2	4.4	2.7	12.1	6.1	10.4	0.0	36.3	10.4	0.0	16.7
Cycle Q Clear(g_c), s	0.7	20.2	4.4	2.7	12.1	6.1	10.4	0.0	36.3	10.4	0.0	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.03
Lane Grp Cap(c), veh/h	25	433	367	68	481	407	226	0	800	210	0	809
V/C Ratio(X)	0.47	0.90	0.24	0.74	0.55	0.30	0.85	0.00	0.90	0.91	0.00	0.53
Avail Cap(c_a), veh/h	90	481	407	92	486	412	266	0	800	210	0	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.32	0.32	0.32	0.81	0.81	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.9	37.4	31.4	47.6	32.4	30.2	42.8	0.0	26.1	43.7	0.0	21.2
Incr Delay (d2), s/veh	4.3	7.5	0.1	15.0	1.0	0.3	20.2	0.0	14.9	38.3	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	9.7	1.7	1.5	5.6	0.0	5.9	0.0	18.4	6.9	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	45.0	31.5	62.6	33.5	30.5	63.0	0.0	41.0	82.0	0.0	23.6
LnGrp LOS	D	D	C	E	C	C	E	A	D	F	A	C
Approach Vol, veh/h		490			436			911			619	
Approach Delay, s/veh		42.8			36.0			45.7			41.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	48.2	8.3	27.5	17.0	47.3	5.9	29.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.6	39.8	5.1	25.5	14.7	36.7	5.0	25.6
Max Q Clear Time (g_c+I1), s	12.4	38.3	4.7	22.2	12.4	18.7	2.7	14.1
Green Ext Time (p_c), s	0.0	0.7	0.0	0.8	0.1	2.5	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
8: Clovis Avenue & Baron Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	296	0	9	32	0	947	416	61	526	0
Future Volume (veh/h)	0	0	0	296	0	9	32	0	947	416	61	526	0
Initial Q (Qb), veh				0	0	0		0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00		1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No				No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900		0	1870	1870	1900	1900	0
Adj Flow Rate, veh/h				322	0	10		0	1029	452	66	572	0
Peak Hour Factor				0.92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0		0	2	2	0	0	0
Cap, veh/h				356	0	317		0	1134	961	85	2539	0
Arrive On Green				0.20	0.00	0.20		0.00	0.61	0.61	0.05	0.70	0.00
Sat Flow, veh/h				1810	0	1610		0	1870	1585	1810	3705	0
Grp Volume(v), veh/h				322	0	10		0	1029	452	66	572	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610		0	1870	1585	1810	1805	0
Q Serve(g_s), s				15.7	0.0	0.5		0.0	43.3	14.1	3.2	5.0	0.0
Cycle Q Clear(g_c), s				15.7	0.0	0.5		0.0	43.3	14.1	3.2	5.0	0.0
Prop In Lane				1.00		1.00		0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				356	0	317		0	1134	961	85	2539	0
V/C Ratio(X)				0.91	0.00	0.03		0.00	0.91	0.47	0.77	0.23	0.00
Avail Cap(c_a), veh/h				362	0	322		0	1134	961	101	2539	0
HCM Platoon Ratio				1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00		0.00	0.81	0.81	1.00	1.00	0.00
Uniform Delay (d), s/veh				35.3	0.0	29.2		0.0	15.5	9.8	42.4	4.7	0.0
Incr Delay (d2), s/veh				25.2	0.0	0.0		0.0	10.1	1.3	26.5	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.2	0.0	0.2		0.0	19.1	4.7	2.1	1.6	0.0
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh				60.5	0.0	29.3		0.0	25.6	11.1	68.9	4.9	0.0
LnGrp LOS				E	A	C		A	C	B	E	A	A
Approach Vol, veh/h					332				1481			638	
Approach Delay, s/veh					59.5				21.2			11.5	
Approach LOS					E				C			B	

Timer - Assigned Phs	1	2			6		8					
Phs Duration (G+Y+Rc), s	8.7	59.1			67.8		22.2					
Change Period (Y+Rc), s	4.5	4.5			4.5		4.5					
Max Green Setting (Gmax), s	5.3	53.5			52.6		18.0					
Max Q Clear Time (g_c+I1), s	5.2	45.3			7.0		17.7					
Green Ext Time (p_c), s	0.0	5.6			4.5		0.0					

Intersection Summary		
HCM 6th Ctrl Delay	23.9	
HCM 6th LOS	C	

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	899	163	287	914	147	222	676	366	136	273	161
Future Volume (veh/h)	191	899	163	287	914	147	222	676	366	136	273	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	201	946	172	302	962	155	234	712	385	143	287	169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	1016	452	317	1037	463	242	1226	547	305	1057	471
Arrive On Green	0.09	0.28	0.28	0.09	0.29	0.29	0.13	0.34	0.34	0.09	0.29	0.29
Sat Flow, veh/h	3483	3582	1594	3510	3610	1610	1810	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	201	946	172	302	962	155	234	712	385	143	287	169
Grp Sat Flow(s),veh/h/ln	1742	1791	1594	1755	1805	1610	1810	1805	1610	1755	1805	1610
Q Serve(g_s), s	6.4	29.6	10.0	9.8	29.8	8.7	14.8	18.7	23.9	4.5	7.0	9.5
Cycle Q Clear(g_c), s	6.4	29.6	10.0	9.8	29.8	8.7	14.8	18.7	23.9	4.5	7.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	1016	452	317	1037	463	242	1226	547	305	1057	471
V/C Ratio(X)	0.66	0.93	0.38	0.95	0.93	0.33	0.97	0.58	0.70	0.47	0.27	0.36
Avail Cap(c_a), veh/h	303	1028	457	317	1048	468	242	1226	547	305	1057	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.87	0.87	0.87
Uniform Delay (d), s/veh	50.9	40.1	33.1	52.0	39.8	32.3	49.5	31.2	32.9	50.0	31.2	32.1
Incr Delay (d2), s/veh	4.4	14.5	0.8	37.3	13.8	0.6	43.6	1.7	6.3	4.4	0.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	14.3	3.8	5.8	14.4	3.3	9.4	8.1	9.7	2.1	3.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	54.6	33.8	89.4	53.6	32.9	93.1	32.9	39.3	54.4	31.8	34.0
LnGrp LOS	E	D	C	F	D	C	F	C	D	D	C	C
Approach Vol, veh/h		1319			1419			1331			599	
Approach Delay, s/veh		52.0			59.0			45.4			37.8	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	39.4	15.6	39.0	15.6	44.8	16.0	38.6
Change Period (Y+Rc), s	5.6	5.7	5.6	6.0	5.6	5.7	5.6	6.0
Max Green Setting (Gmax), s	15.4	33.3	10.0	33.4	10.0	38.7	10.4	33.0
Max Q Clear Time (g_c+I1), s	10.8	11.5	8.4	31.8	6.5	25.9	11.8	31.6
Green Ext Time (p_c), s	0.0	6.2	0.1	1.2	0.1	8.0	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	594	413	33	471	351	328	915	48	110	584	50
Future Volume (veh/h)	101	594	413	33	471	351	328	915	48	110	584	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	107	632	439	35	501	373	349	973	51	117	621	53
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	132	629	533	93	584	494	344	1374	598	143	978	424
Arrive On Green	0.07	0.33	0.33	0.05	0.31	0.31	0.19	0.38	0.38	0.08	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1795	1885	1596	1795	3582	1558	1810	3610	1566
Grp Volume(v), veh/h	107	632	439	35	501	373	349	973	51	117	621	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1795	1885	1596	1795	1791	1558	1810	1805	1566
Q Serve(g_s), s	7.0	39.7	30.1	2.3	30.0	25.3	23.0	27.6	2.5	7.6	18.2	3.1
Cycle Q Clear(g_c), s	7.0	39.7	30.1	2.3	30.0	25.3	23.0	27.6	2.5	7.6	18.2	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	629	533	93	584	494	344	1374	598	143	978	424
V/C Ratio(X)	0.81	1.01	0.82	0.38	0.86	0.75	1.01	0.71	0.09	0.82	0.64	0.12
Avail Cap(c_a), veh/h	151	629	533	135	608	515	344	1374	598	166	978	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.31	0.31	0.31	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	40.2	36.9	55.0	39.0	37.3	48.5	31.3	23.6	54.4	38.5	33.0
Incr Delay (d2), s/veh	21.7	37.2	10.7	0.9	12.0	6.6	30.6	1.0	0.1	20.9	3.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	24.1	12.9	1.0	15.2	10.4	12.9	11.5	0.9	4.3	8.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.5	77.4	47.6	56.0	50.9	43.9	79.1	32.3	23.7	75.3	41.7	33.6
LnGrp LOS	E	F	D	E	D	D	F	C	C	E	D	C
Approach Vol, veh/h		1178			909			1373			791	
Approach Delay, s/veh		66.2			48.3			43.8			46.1	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	37.8	12.7	42.4	13.5	51.3	10.2	45.0
Change Period (Y+Rc), s	4.0	5.3	4.0	5.3	4.0	5.3	4.0	5.3
Max Green Setting (Gmax), s	23.0	29.7	10.0	38.7	11.0	41.7	9.0	39.7
Max Q Clear Time (g_c+I1), s	25.0	20.2	9.0	32.0	9.6	29.6	4.3	41.7
Green Ext Time (p_c), s	0.0	4.0	0.0	3.3	0.0	6.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.4
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	404	185	38	338	122	261	1212	90	125	880	32
Future Volume (veh/h)	23	404	185	38	338	122	261	1212	90	125	880	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	439	201	41	367	133	284	1317	98	136	957	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	83	482	408	109	509	432	304	1473	109	172	1278	47
Arrive On Green	0.05	0.26	0.26	0.06	0.27	0.27	0.17	0.43	0.43	0.10	0.36	0.36
Sat Flow, veh/h	1795	1885	1596	1795	1885	1598	1810	3401	252	1810	3548	130
Grp Volume(v), veh/h	25	439	201	41	367	133	284	697	718	136	487	505
Grp Sat Flow(s),veh/h/ln	1795	1885	1596	1795	1885	1598	1810	1805	1848	1810	1805	1873
Q Serve(g_s), s	1.7	28.2	13.4	2.7	22.1	8.3	19.4	44.6	45.0	9.2	29.5	29.5
Cycle Q Clear(g_c), s	1.7	28.2	13.4	2.7	22.1	8.3	19.4	44.6	45.0	9.2	29.5	29.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.07
Lane Grp Cap(c), veh/h	83	482	408	109	509	432	304	782	800	172	650	675
V/C Ratio(X)	0.30	0.91	0.49	0.38	0.72	0.31	0.93	0.89	0.90	0.79	0.75	0.75
Avail Cap(c_a), veh/h	172	593	502	172	593	502	304	782	800	232	650	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	57.6	45.1	39.6	56.4	41.3	36.3	51.3	32.7	32.8	55.3	35.0	35.0
Incr Delay (d2), s/veh	0.7	15.3	0.6	0.8	3.7	0.4	34.3	14.6	14.8	6.5	5.8	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	14.8	5.2	1.2	10.5	3.2	11.4	21.5	22.2	4.4	13.5	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	60.4	40.2	57.2	45.0	36.7	85.6	47.3	47.7	61.9	40.8	40.6
LnGrp LOS	E	E	D	E	D	D	F	D	D	E	D	D
Approach Vol, veh/h		665			541			1699			1128	
Approach Delay, s/veh		54.2			43.9			53.9			43.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	50.7	9.8	39.5	15.9	59.8	11.6	37.7
Change Period (Y+Rc), s	4.0	5.7	4.0	5.7	4.0	5.7	4.0	5.7
Max Green Setting (Gmax), s	11.0	33.3	12.0	39.3	16.0	38.3	12.0	39.3
Max Q Clear Time (g_c+I1), s	11.4	31.5	3.7	24.1	11.2	47.0	4.7	30.2
Green Ext Time (p_c), s	0.0	1.0	0.0	2.3	0.1	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
15: Clovis Avenue & Herndon Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	703	1499	349	326	1423	212	609	614	320	331	378	493
Future Volume (veh/h)	703	1499	349	326	1423	212	609	614	320	331	378	493
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	732	1561	364	340	1482	221	634	640	333	345	394	514
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	1098	2531	1174	388	1445	448	853	939	429	348	662	1242
Arrive On Green	0.42	0.65	0.65	0.11	0.28	0.28	0.24	0.27	0.27	0.10	0.13	0.13
Sat Flow, veh/h	3483	5147	1598	3483	5147	1596	3510	3458	1579	3483	5147	2768
Grp Volume(v), veh/h	732	1561	364	340	1482	221	634	640	333	345	394	514
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1742	1716	1596	1755	1729	1579	1742	1716	1384
Q Serve(g_s), s	23.7	24.6	4.6	13.5	39.3	16.2	23.4	23.2	27.3	13.9	10.1	0.0
Cycle Q Clear(g_c), s	23.7	24.6	4.6	13.5	39.3	16.2	23.4	23.2	27.3	13.9	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1098	2531	1174	388	1445	448	853	939	429	348	662	1242
V/C Ratio(X)	0.67	0.62	0.31	0.88	1.03	0.49	0.74	0.68	0.78	0.99	0.60	0.41
Avail Cap(c_a), veh/h	1098	2531	1174	423	1445	448	853	939	429	348	662	1242
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	16.6	2.9	61.3	50.4	42.0	49.0	45.6	47.1	62.9	57.6	26.5
Incr Delay (d2), s/veh	0.6	0.5	0.3	16.4	30.5	3.8	3.2	4.0	13.0	45.5	3.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	7.7	1.0	6.7	20.4	6.7	10.4	10.2	12.0	8.2	4.5	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	17.1	3.2	77.6	80.8	45.9	52.1	49.6	60.0	108.4	61.5	27.5
LnGrp LOS	D	B	A	E	F	D	D	D	E	F	E	C
Approach Vol, veh/h		2657			2043			1607			1253	
Approach Delay, s/veh		20.2			76.5			52.8			60.5	
Approach LOS		C			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.1	45.3	19.0	43.7	20.6	74.9	39.0	23.7
Change Period (Y+Rc), s	6.0	* 6	5.0	5.7	5.0	6.0	5.0	5.7
Max Green Setting (Gmax), s	27.0	* 39	14.0	38.0	17.0	49.3	34.0	18.0
Max Q Clear Time (g_c+I1), s	25.7	41.3	15.9	29.3	15.5	26.6	25.4	12.1
Green Ext Time (p_c), s	0.3	0.0	0.0	2.7	0.1	13.0	0.9	2.6

Intersection Summary	
HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	222	253	19	230	132	11
Future Volume (veh/h)	222	253	19	230	132	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1900	1900	1900
Adj Flow Rate, veh/h	236	269	20	245	140	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	0	0	0	0
Cap, veh/h	296	337	28	338	219	19
Arrive On Green	0.37	0.37	0.19	0.19	0.13	0.13
Sat Flow, veh/h	804	916	143	1750	1640	141
Grp Volume(v), veh/h	0	505	265	0	153	0
Grp Sat Flow(s),veh/h/ln	0	1720	1893	0	1793	0
Q Serve(g_s), s	0.0	11.6	5.8	0.0	3.6	0.0
Cycle Q Clear(g_c), s	0.0	11.6	5.8	0.0	3.6	0.0
Prop In Lane		0.53	0.08		0.92	0.08
Lane Grp Cap(c), veh/h	0	633	365	0	239	0
V/C Ratio(X)	0.00	0.80	0.73	0.00	0.64	0.00
Avail Cap(c_a), veh/h	0	1110	793	0	791	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	12.5	16.7	0.0	18.1	0.0
Incr Delay (d2), s/veh	0.0	2.4	2.8	0.0	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	2.4	0.0	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	14.9	19.5	0.0	21.0	0.0
LnGrp LOS	A	B	B	A	C	A
Approach Vol, veh/h	505			265	153	
Approach Delay, s/veh	14.9			19.5	21.0	
Approach LOS	B			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	10.4	20.8	13.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	28.5	18.5
Max Q Clear Time (g_c+I1), s	5.6	13.6	7.8
Green Ext Time (p_c), s	0.3	2.7	1.1

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
18: Sunnyside Avenue & Shepherd Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	428	922	168	64	955	334	192	300	76	168	187	386
Future Volume (veh/h)	428	922	168	64	955	334	192	300	76	168	187	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	455	981	179	68	1016	355	204	319	81	179	199	411
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	441	1697	757	115	1053	631	233	304	77	181	340	684
Arrive On Green	0.25	0.47	0.47	0.06	0.29	0.29	0.13	0.21	0.21	0.10	0.18	0.18
Sat Flow, veh/h	1795	3582	1598	1810	3610	1610	1810	1462	371	1810	1900	1610
Grp Volume(v), veh/h	455	981	179	68	1016	355	204	0	400	179	199	411
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1810	1805	1610	1810	0	1833	1810	1900	1610
Q Serve(g_s), s	27.0	21.8	7.3	4.0	30.5	18.9	12.2	0.0	22.9	10.9	10.6	19.7
Cycle Q Clear(g_c), s	27.0	21.8	7.3	4.0	30.5	18.9	12.2	0.0	22.9	10.9	10.6	19.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	441	1697	757	115	1053	631	233	0	382	181	340	684
V/C Ratio(X)	1.03	0.58	0.24	0.59	0.96	0.56	0.87	0.00	1.05	0.99	0.58	0.60
Avail Cap(c_a), veh/h	441	1697	757	148	1053	631	247	0	382	181	340	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	21.0	17.2	50.1	38.4	26.1	47.0	0.0	43.6	49.4	41.4	24.4
Incr Delay (d2), s/veh	51.5	1.4	0.7	4.8	20.4	3.6	26.5	0.0	59.2	63.6	7.2	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	8.7	2.7	1.9	15.9	7.5	7.0	0.0	16.2	8.1	5.6	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.0	22.4	17.9	54.9	58.8	29.7	73.5	0.0	102.8	113.0	48.6	28.3
LnGrp LOS	F	C	B	D	E	C	E	A	F	F	D	C
Approach Vol, veh/h		1615			1439			604			789	
Approach Delay, s/veh		41.8			51.4			92.9			52.7	
Approach LOS		D			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	56.6	18.2	24.2	31.0	36.6	15.0	27.4
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	9.0	50.1	15.0	18.9	27.0	32.1	11.0	22.9
Max Q Clear Time (g_c+I1), s	6.0	23.8	14.2	21.7	29.0	32.5	12.9	24.9
Green Ext Time (p_c), s	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	613	201	72	690	282	333	370	108	155	230	38
Future Volume (veh/h)	54	613	201	72	690	282	333	370	108	155	230	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	57	645	212	76	726	297	351	389	114	163	242	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	114	1301	580	126	698	591	341	508	430	180	283	47
Arrive On Green	0.06	0.36	0.36	0.07	0.37	0.37	0.19	0.27	0.27	0.10	0.18	0.18
Sat Flow, veh/h	1795	3582	1598	1795	1885	1598	1795	1885	1598	1795	1577	261
Grp Volume(v), veh/h	57	645	212	76	726	297	351	389	114	163	0	282
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1885	1598	1795	1885	1598	1795	0	1838
Q Serve(g_s), s	3.1	14.0	9.7	4.1	37.0	14.4	19.0	19.0	5.6	9.0	0.0	14.9
Cycle Q Clear(g_c), s	3.1	14.0	9.7	4.1	37.0	14.4	19.0	19.0	5.6	9.0	0.0	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	114	1301	580	126	698	591	341	508	430	180	0	330
V/C Ratio(X)	0.50	0.50	0.37	0.60	1.04	0.50	1.03	0.77	0.26	0.91	0.00	0.86
Avail Cap(c_a), veh/h	144	1301	580	162	698	591	341	508	430	180	0	330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.3	24.7	23.4	45.1	31.5	24.4	40.5	33.6	28.7	44.5	0.0	39.8
Incr Delay (d2), s/veh	1.3	0.5	0.7	1.7	45.1	1.2	56.4	10.5	1.5	41.2	0.0	23.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.7	3.6	1.8	23.9	5.4	13.3	9.7	2.3	5.9	0.0	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	25.3	24.1	46.8	76.6	25.6	96.9	44.2	30.2	85.7	0.0	63.4
LnGrp LOS	D	C	C	D	F	C	F	D	C	F	A	E
Approach Vol, veh/h		914			1099			854			445	
Approach Delay, s/veh		26.3			60.8			64.0			71.6	
Approach LOS		C			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	23.6	10.4	43.0	14.0	32.6	11.0	42.3
Change Period (Y+Rc), s	4.0	5.7	4.0	6.0	4.0	5.7	4.0	6.0
Max Green Setting (Gmax), s	19.0	16.3	8.0	37.0	10.0	25.3	9.0	36.0
Max Q Clear Time (g_c+I1), s	21.0	16.9	5.1	39.0	11.0	21.0	6.1	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.1

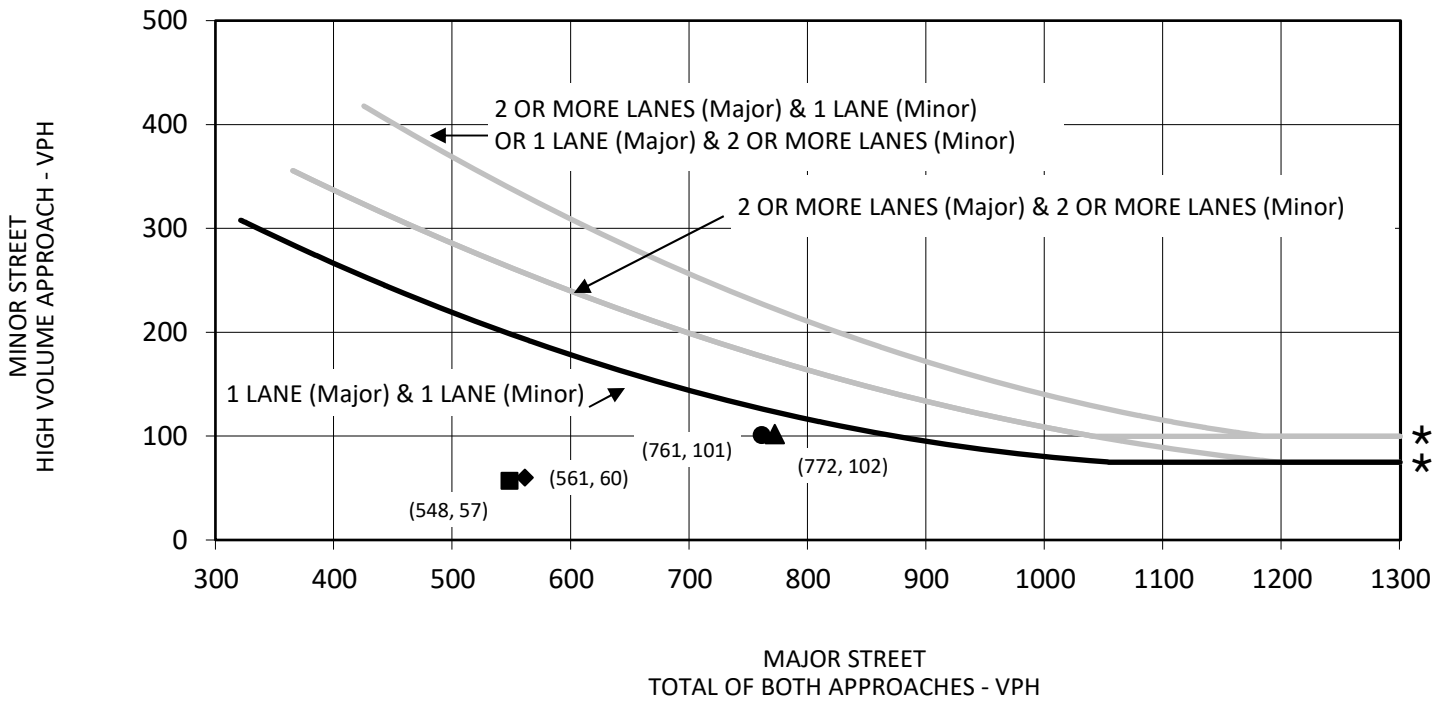
Intersection Summary	
HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

APPENDIX F

SIGNAL WARRANT ANALYSIS WORKSHEETS

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 4-A

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

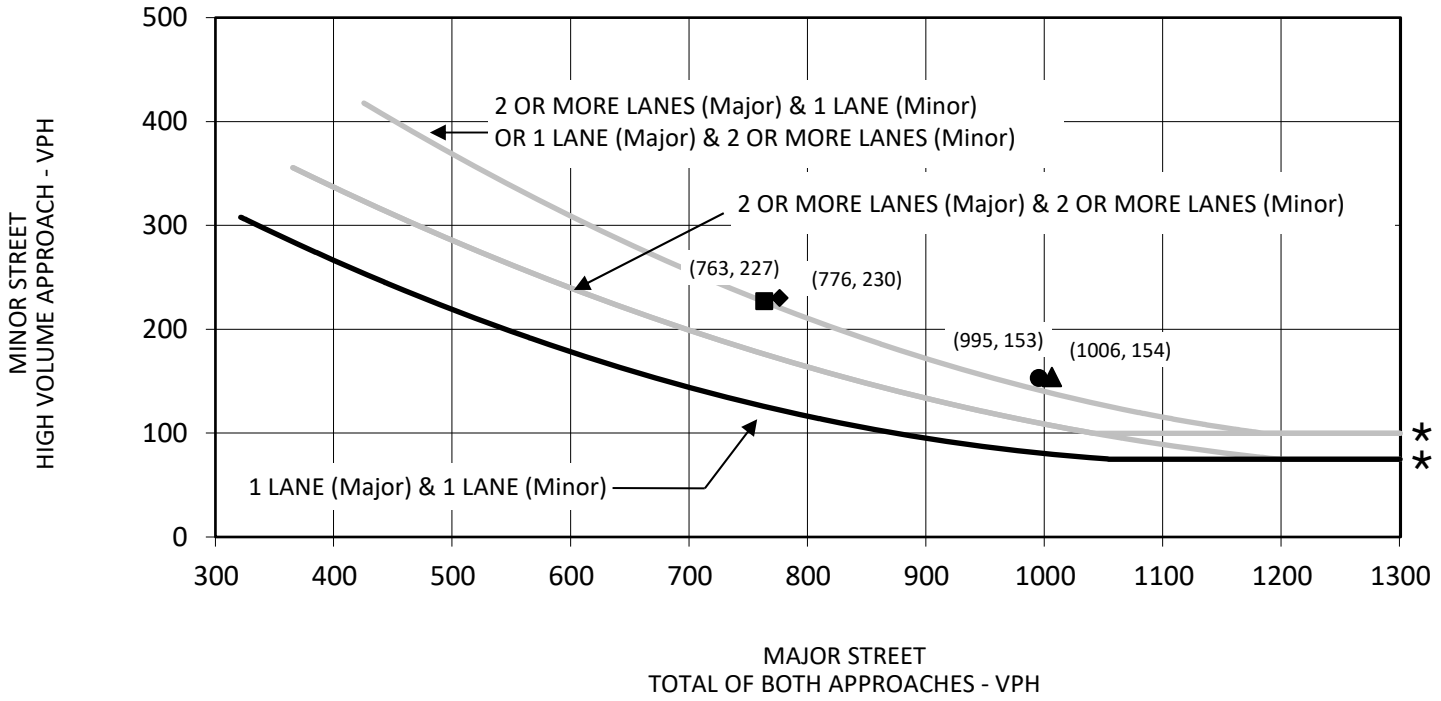
Tract Map 6343 Project

Transportation Impact Analysis

Existing Year (2022) - Minnewawa Avenue/International Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 4-C

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

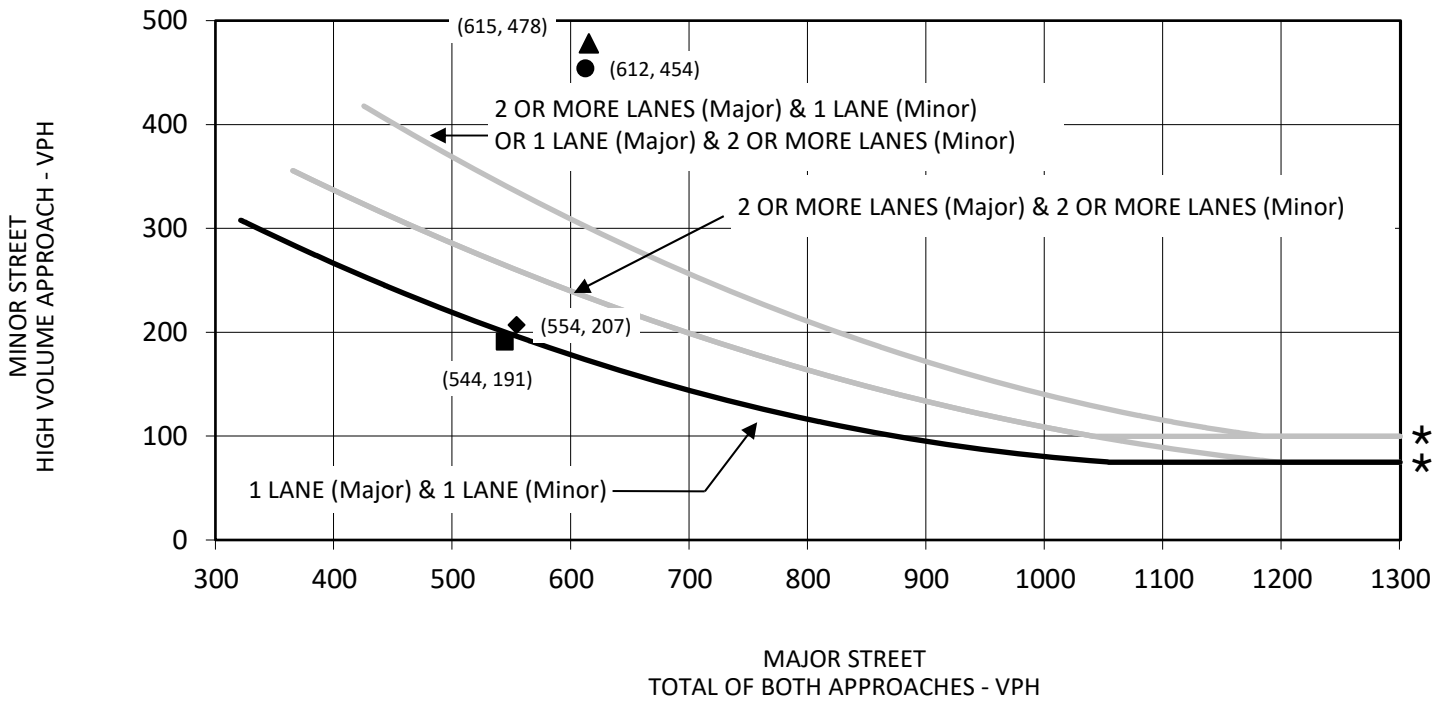
Tract Map 6343 Project

Transportation Impact Analysis

Cumulative Year (2046) - Minnewawa Avenue/International Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE 5-A

LSA

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

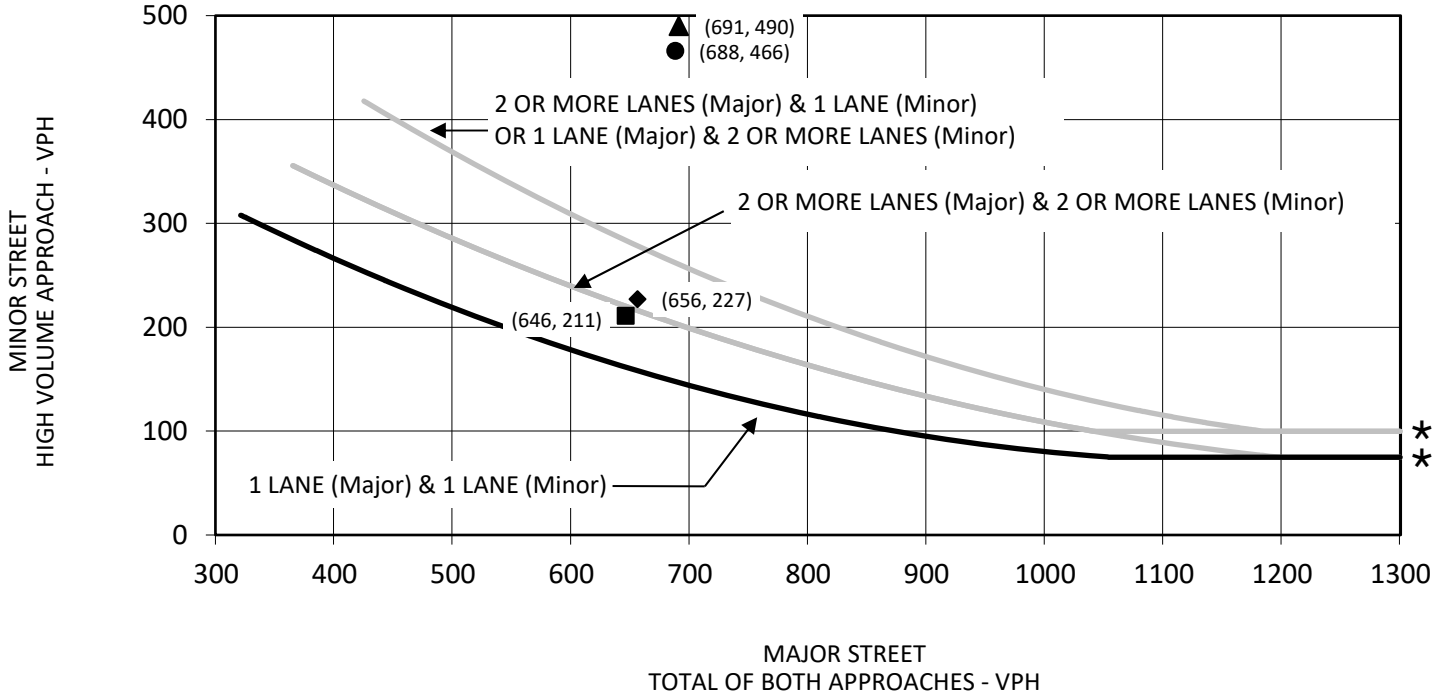
Tract Map 6343 Project

Transportation Impact Analysis

Existing Year (2022) - Minnewawa Avenue/Behymer Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 5-B

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

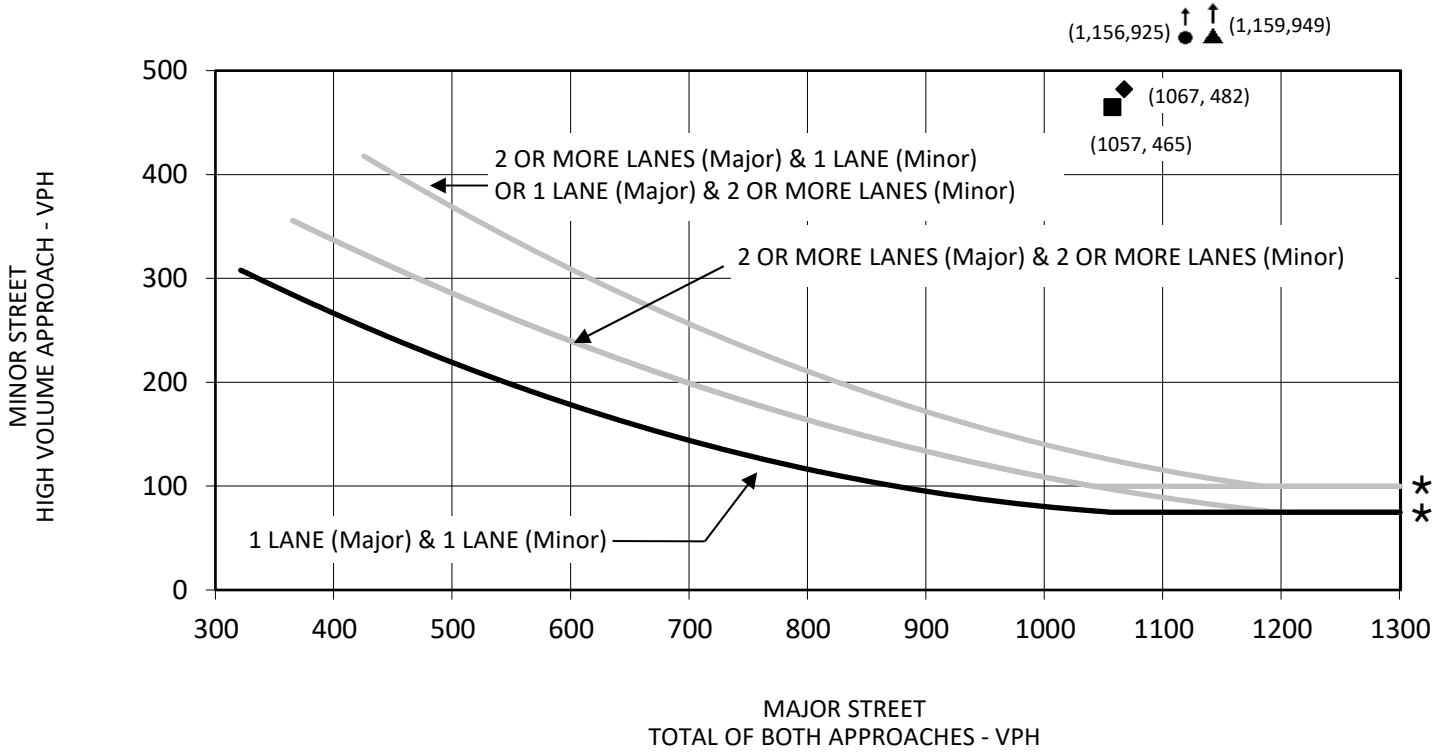
Tract Map 6343 Project

Transportation Impact Analysis

Near Term Year (2026) - Minnewawa Avenue/Behymer Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 5-C

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

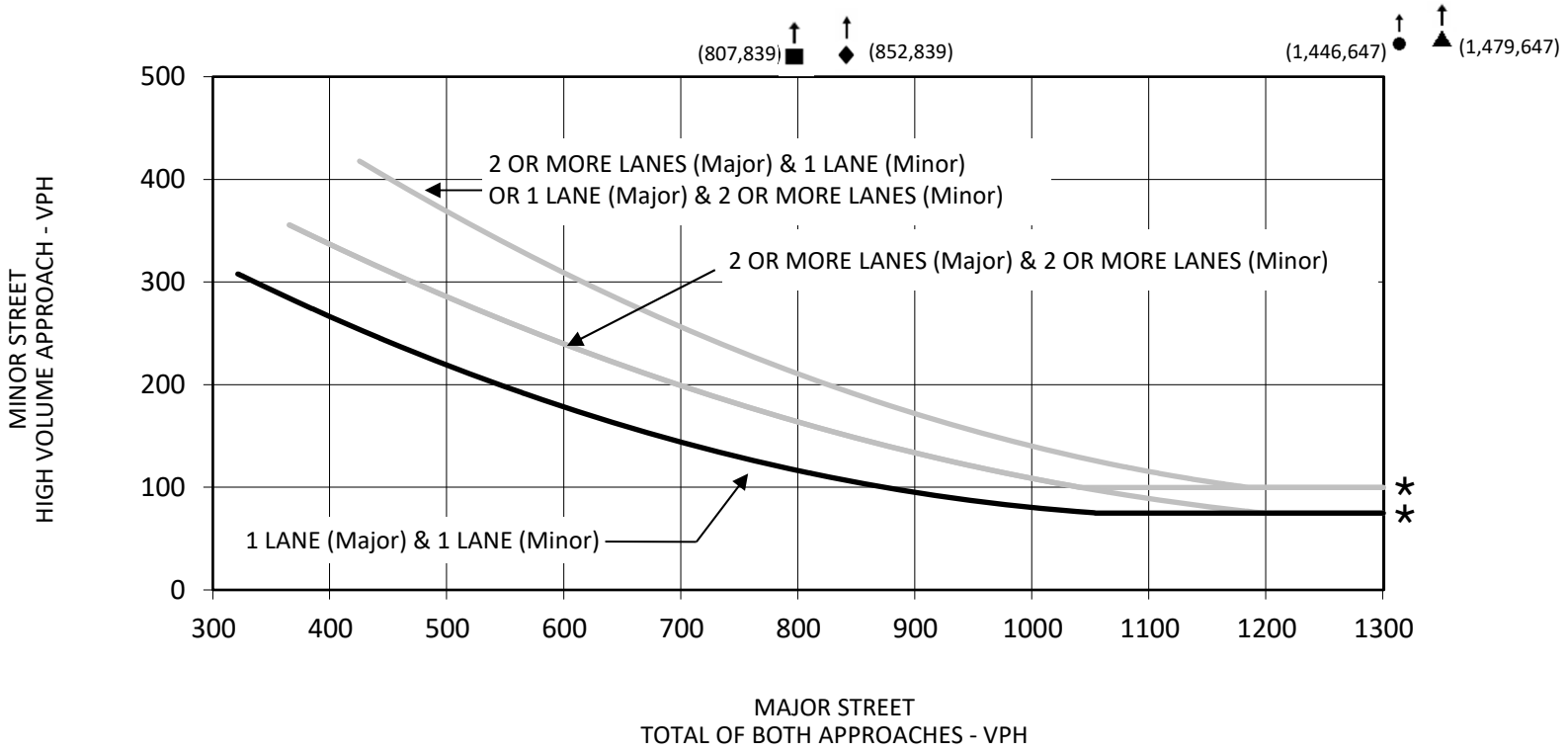
Tract Map 6343 Project

Transportation Impact Analysis

Cumulative Year (2046) - Minnewawa Avenue/Behymer Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 7-C

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

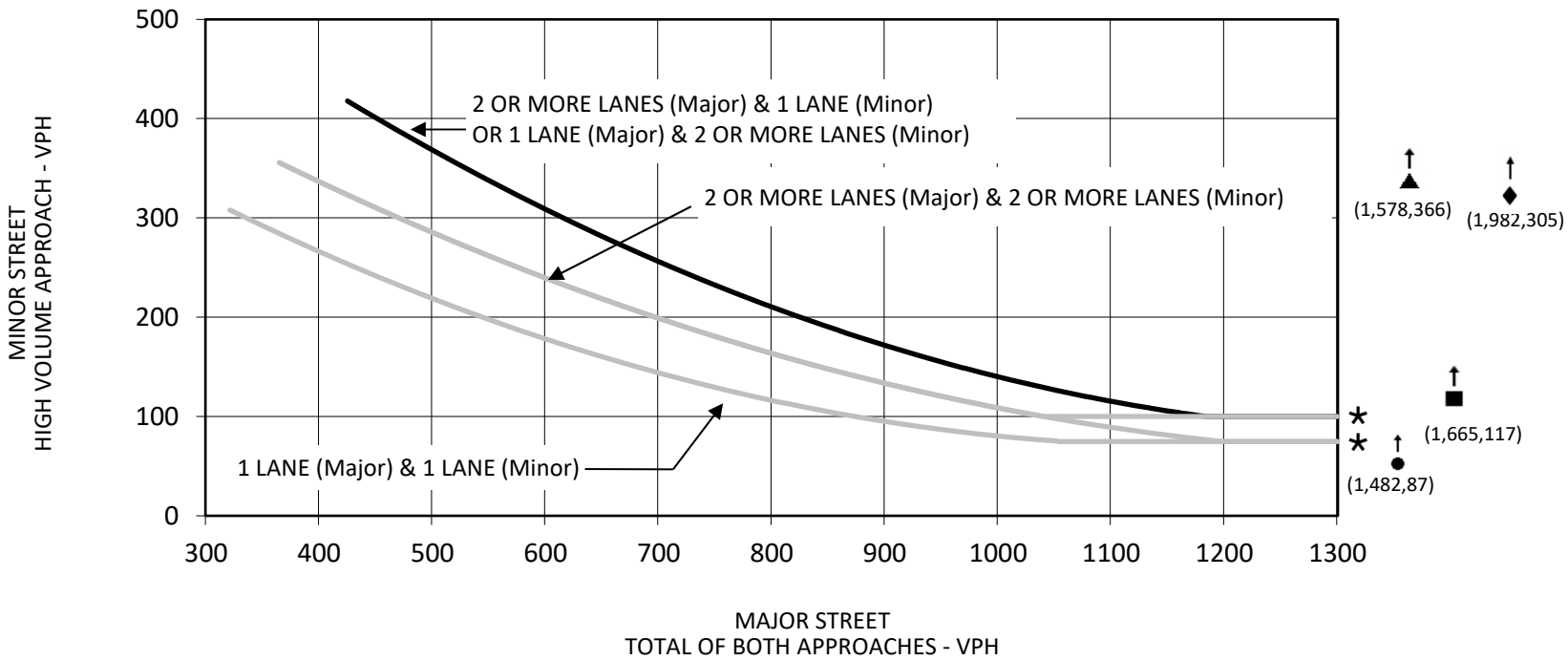
Tract Map 6343 Project

Transportation Impact Analysis

Cumulative Year (2046) - Clovis Avenue/Behymer Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 8-C

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

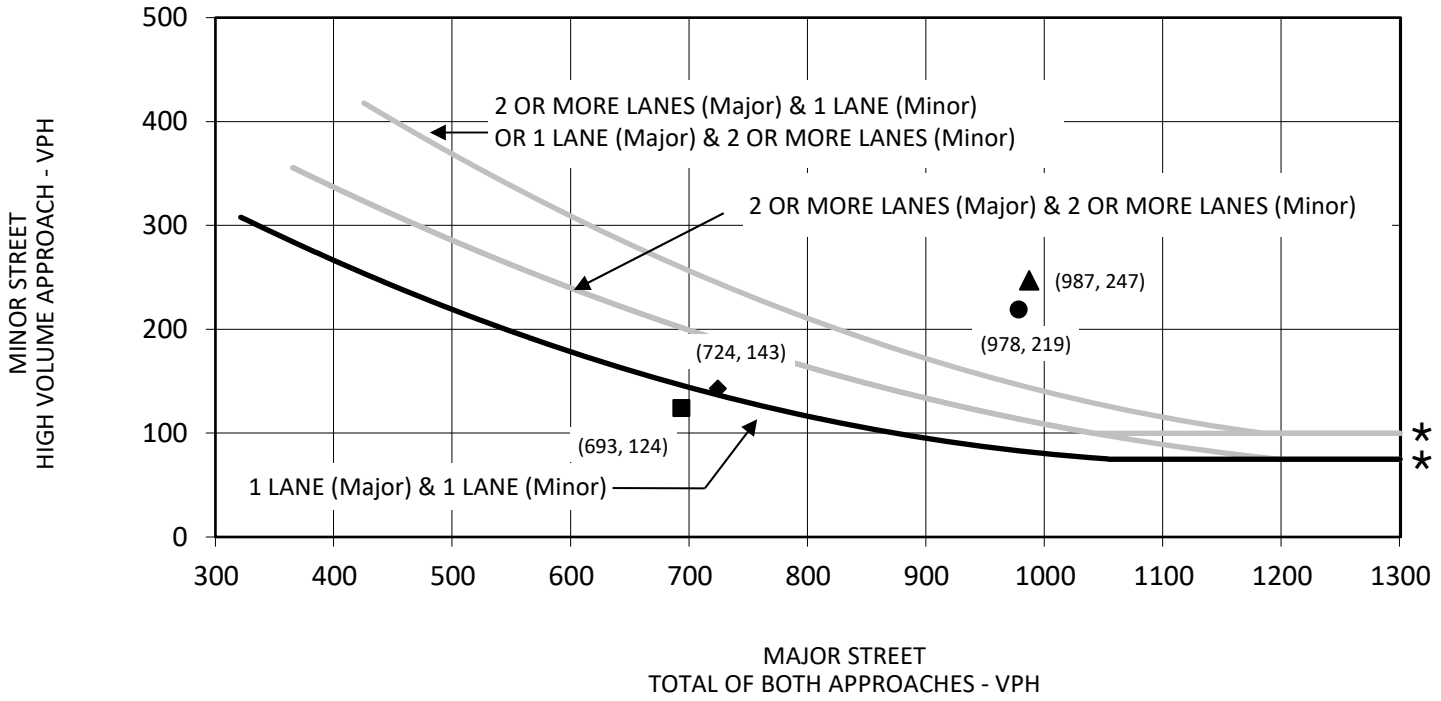
Tract Map 6343 Project

Transportation Impact Analysis

Cumulative Year (2046) - Clovis Avenue/Behymer Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 16-C

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

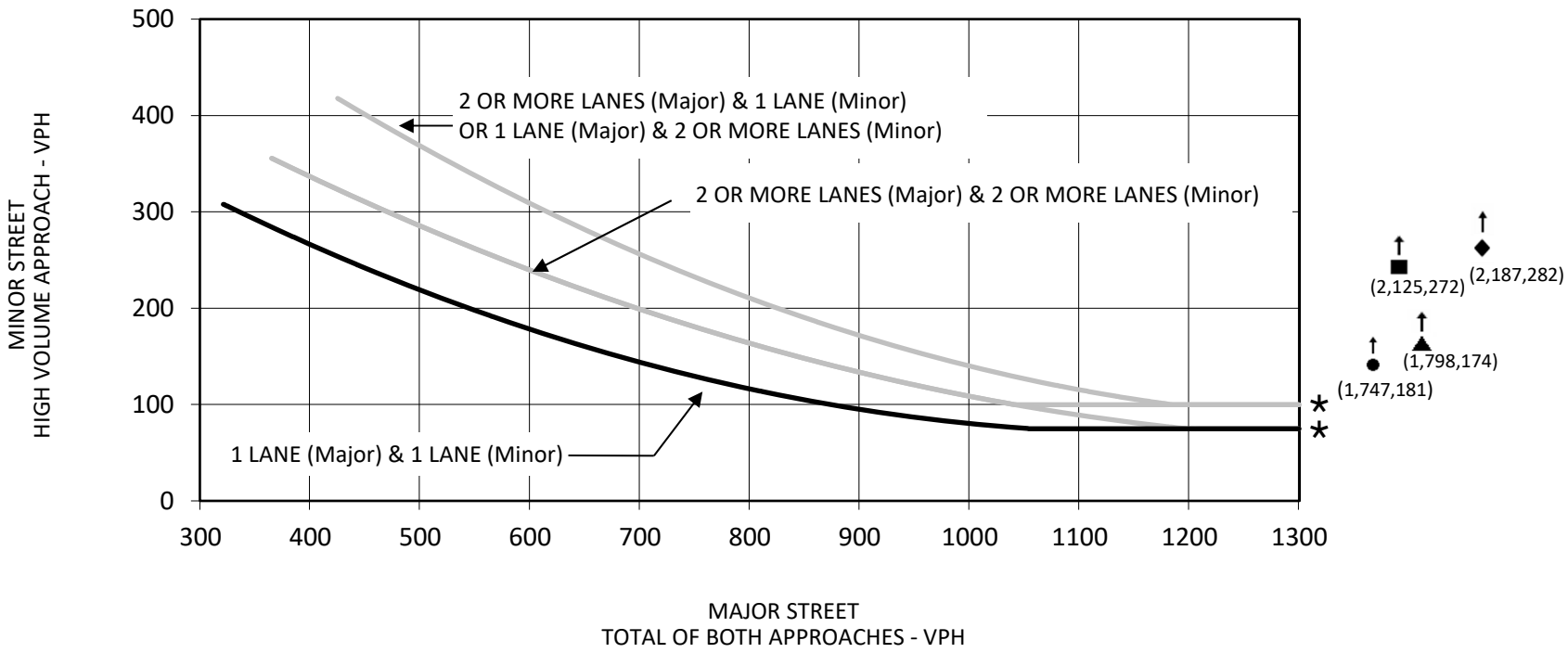
Tract Map 6343 Project

Transportation Impact Analysis

Cumulative Year (2046) - Baron Avenue/Behymer Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

FIGURE 18-B

LSA

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

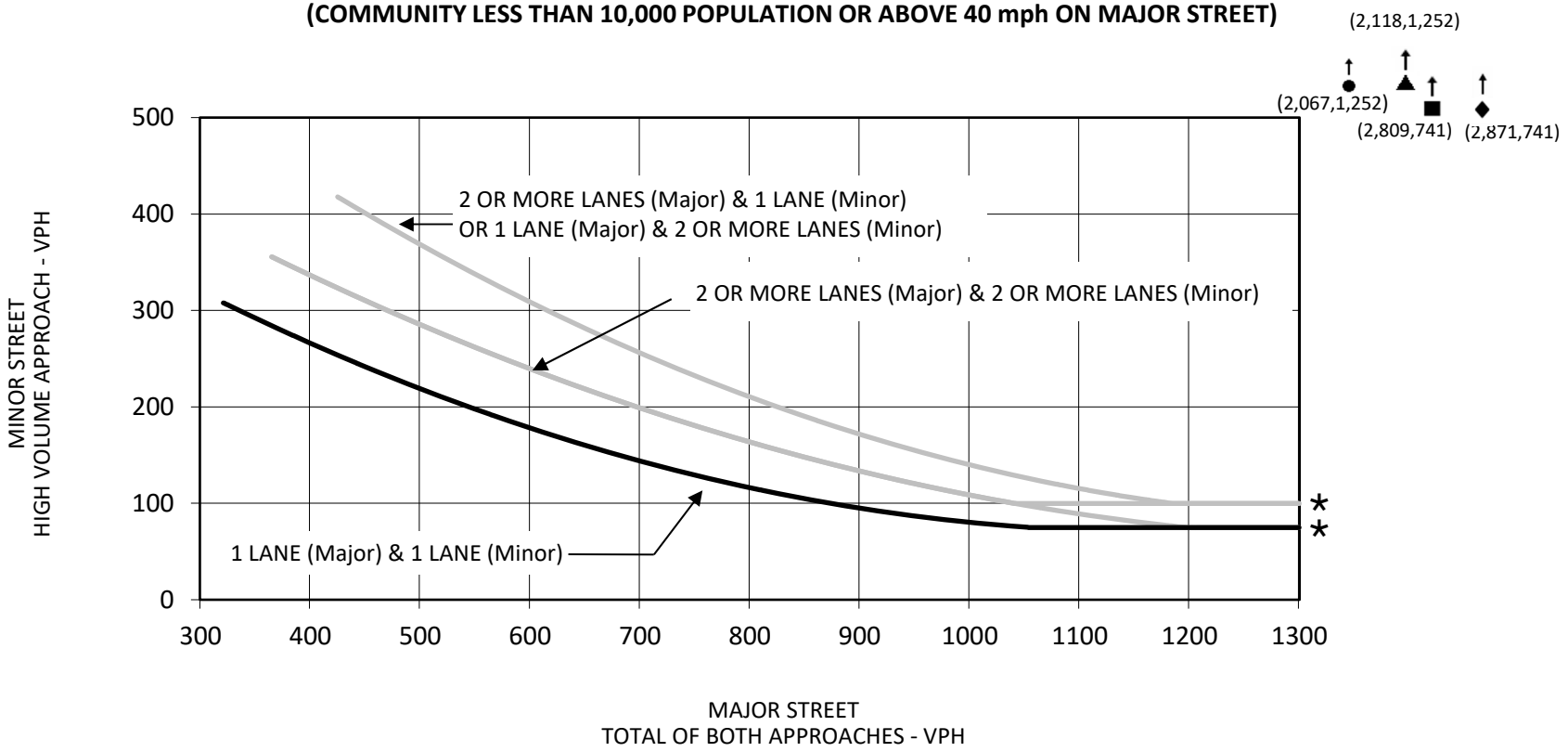
Tract Map 6343 Project

Transportation Impact Analysis

Near Term Year (2026) - Sunnyside Avenue/Shepherd Avenue

WARRANT 3, PEAK HOUR (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 mph ON MAJOR STREET)



* 100 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 75 VPH applies as the lower threshold volume for a minor street approaching with one lane.

LSA

FIGURE 18-C

● Without Project AM Peak Hour ▲ Plus Project AM Peak Hour

■ Without Project PM Peak Hour ◆ Plus Project PM Peak Hour

SOURCE: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-4

Tract Map 6343 Project

Transportation Impact Analysis

Cumulative Year (2046) - Sunnyside Avenue/Shepherd Avenue

APPENDIX G

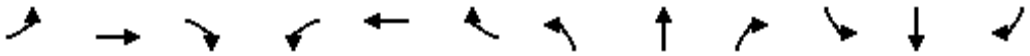
QUEUING ANALYSIS WORKSHEETS

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Existing (2022) NP - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	92	254	18	351	70	459	386	18	82	566	113
v/c Ratio	0.27	0.19	0.42	0.17	0.79	0.15	0.62	0.22	0.02	0.57	0.31	0.18
Control Delay	66.7	37.6	6.2	64.4	60.7	2.1	47.0	34.0	3.3	74.8	33.2	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	37.6	6.2	64.4	60.7	2.1	47.0	34.0	3.3	74.8	33.2	6.7
Queue Length 50th (ft)	25	57	0	15	291	0	200	153	0	71	135	0
Queue Length 95th (ft)	49	84	26	35	298	0	226	186	m7	103	150	26
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	203	617	695	209	609	592	742	1777	850	193	1816	638
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.37	0.09	0.58	0.12	0.62	0.22	0.02	0.42	0.31	0.18

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	158	257	20	216	106	699	20	56	729	94
v/c Ratio	0.60	0.35	0.45	0.19	0.69	0.65	0.26	0.02	0.45	0.29	0.12
Control Delay	77.0	44.8	7.0	64.9	60.7	76.4	20.1	0.1	79.8	14.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.0	44.8	7.0	64.9	60.7	76.4	20.1	0.1	79.8	14.1	0.5
Queue Length 50th (ft)	73	122	0	17	170	91	123	0	51	68	1
Queue Length 95th (ft)	111	150	35	40	206	129	160	0	85	89	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	180	600	684	199	580	199	2666	887	194	2473	812
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.26	0.38	0.10	0.37	0.53	0.26	0.02	0.29	0.29	0.12

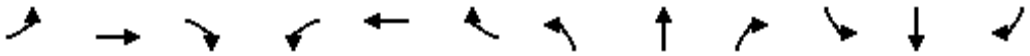
Intersection Summary

Queues

Tract Map 6

3: Willow Avenue & Shepherd Avenue

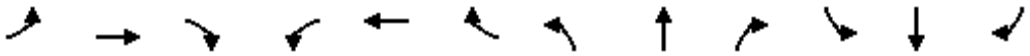
Existing (2022) NP - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	276	165	50	339	111	182	667	56	183	841	57
v/c Ratio	0.17	0.58	0.47	0.26	0.61	0.32	0.64	0.23	0.06	0.64	0.28	0.06
Control Delay	67.7	63.8	11.9	69.2	61.5	9.7	74.7	16.7	0.1	74.3	17.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	63.8	11.9	69.2	61.5	9.7	74.7	16.7	0.1	74.3	17.3	0.1
Queue Length 50th (ft)	15	131	0	23	162	0	87	113	0	88	148	0
Queue Length 95th (ft)	33	169	61	45	203	44	123	156	0	123	200	0
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	459	1069	593	426	1058	550	438	2897	942	447	2953	958
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.26	0.28	0.12	0.32	0.20	0.42	0.23	0.06	0.41	0.28	0.06

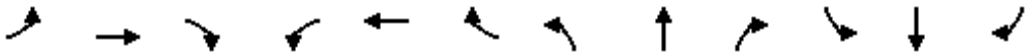
Intersection Summary

Queues
Tract Map 6
6: Minnewawa Avenue & Shepherd Avenue
Existing (2022) NP - AM Pk Hr



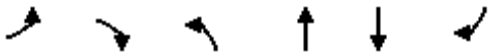
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	404	181	52	346	108	151	179	49	123	189	35
v/c Ratio	0.26	0.49	0.41	0.35	0.80	0.25	0.71	0.22	0.07	0.65	0.24	0.05
Control Delay	60.4	44.4	21.1	62.7	60.8	10.9	72.1	27.0	0.7	71.1	28.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	44.4	21.1	62.7	60.8	10.9	72.1	27.0	0.7	71.1	28.6	0.1
Queue Length 50th (ft)	31	155	58	42	276	11	125	95	0	102	104	0
Queue Length 95th (ft)	64	176	103	79	327	46	175	165	0	150	178	0
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	960	500	283	498	490	286	825	752	285	800	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.42	0.36	0.18	0.69	0.22	0.53	0.22	0.07	0.43	0.24	0.05

Intersection Summary



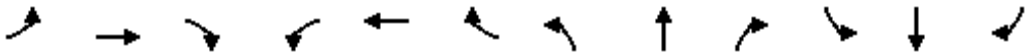
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	406	142	131	354	58	96	71	104	23	86	81
v/c Ratio	0.16	0.69	0.41	0.50	0.51	0.15	0.62	0.09	0.23	0.02	0.05	0.10
Control Delay	62.8	61.0	18.0	68.6	53.4	0.8	77.8	41.2	7.5	32.8	20.3	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	61.0	18.0	68.6	53.4	0.8	77.8	41.2	7.5	32.8	20.3	2.0
Queue Length 50th (ft)	17	184	27	60	157	0	86	26	0	7	20	0
Queue Length 95th (ft)	34	211	72	86	180	0	131	44	33	17	39	10
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	592	851	456	598	859	466	294	826	453	1158	1718	824
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.48	0.31	0.22	0.41	0.12	0.33	0.09	0.23	0.02	0.05	0.10

Intersection Summary



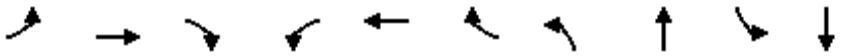
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	96	292	346	275	359	241
v/c Ratio	0.46	0.66	0.74	0.10	0.22	0.28
Control Delay	42.0	12.1	38.6	2.9	15.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	12.1	38.6	2.9	15.9	3.6
Queue Length 50th (ft)	49	0	167	14	58	0
Queue Length 95th (ft)	76	33	196	24	86	24
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	677	471	2704	1606	849
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.43	0.73	0.10	0.22	0.28

Intersection Summary



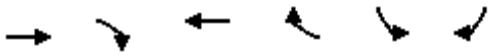
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	352	223	40	417	207	80	338	23	80	478	48
v/c Ratio	0.31	0.67	0.37	0.36	0.79	0.38	0.58	0.20	0.03	0.58	0.29	0.06
Control Delay	75.0	54.3	6.1	76.3	60.7	16.8	83.3	25.8	0.1	83.1	26.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.0	54.3	6.1	76.3	60.7	16.8	83.3	25.8	0.1	83.1	26.9	0.1
Queue Length 50th (ft)	33	305	0	38	377	55	77	103	0	77	153	0
Queue Length 95th (ft)	68	382	52	76	458	112	127	154	0	127	217	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	365	536	614	309	531	541	362	1653	773	306	1667	794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.66	0.36	0.13	0.79	0.38	0.22	0.20	0.03	0.26	0.29	0.06

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	302	172	49	457	100	143	386	142	685
v/c Ratio	0.11	0.67	0.36	0.34	0.84	0.18	0.67	0.26	0.71	0.46
Control Delay	55.5	49.7	12.5	61.0	55.1	3.1	68.0	25.1	72.7	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	49.7	12.5	61.0	55.1	3.1	68.0	25.1	72.7	30.5
Queue Length 50th (ft)	11	234	29	38	333	0	113	94	112	196
Queue Length 95th (ft)	34	289	79	79	455	22	174	162	180	323
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	151	572	567	155	593	591	294	1459	228	1478
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.53	0.30	0.32	0.77	0.17	0.49	0.26	0.62	0.46

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1018	522	1774	386	70	776
v/c Ratio	0.26	0.44	0.48	0.30	0.07	0.94
Control Delay	11.6	2.1	10.9	0.9	35.1	62.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	2.1	10.9	0.9	35.1	62.3
Queue Length 50th (ft)	107	0	271	2	22	339
Queue Length 95th (ft)	126	42	303	23	41	#477
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	3943	1174	3663	1283	957	824
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.44	0.48	0.30	0.07	0.94

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	900	237	1751	88	504	532
v/c Ratio	0.30	0.15	0.39	0.09	0.33	0.52
Control Delay	12.8	0.2	14.9	2.5	35.2	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	0.2	14.9	2.5	35.2	20.5
Queue Length 50th (ft)	123	0	187	0	115	106
Queue Length 95th (ft)	142	0	208	22	148	168
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2972	1583	4454	971	1520	1023
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.15	0.39	0.09	0.33	0.52

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	261	895	230	159	1098	169	249	403	173	304	432
v/c Ratio	0.72	0.54	0.35	0.54	0.71	0.31	0.70	0.23	0.54	0.17	0.35
Control Delay	78.4	44.4	5.8	74.8	51.0	21.0	77.4	28.9	73.7	36.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.4	44.4	5.8	74.8	51.0	21.0	77.4	28.9	73.7	36.4	3.9
Queue Length 50th (ft)	134	271	0	80	361	58	128	84	88	78	0
Queue Length 95th (ft)	179	325	63	119	434	130	172	116	127	109	43
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	548	1643	666	553	1557	541	664	1752	671	1759	1235
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.54	0.35	0.29	0.71	0.31	0.38	0.23	0.26	0.17	0.35

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	293	53	38	291	385	147	96	35	193	149
v/c Ratio	0.22	0.39	0.13	0.37	0.67	0.82	0.74	0.11	0.04	0.79	0.17
Control Delay	73.5	50.8	3.7	77.8	59.2	49.4	85.5	28.3	0.1	84.5	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	50.8	3.7	77.8	59.2	49.4	85.5	28.3	0.1	84.5	25.0
Queue Length 50th (ft)	20	126	0	37	260	246	142	55	0	185	81
Queue Length 95th (ft)	50	159	16	76	330	344	212	116	0	262	158
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	365	882	453	365	472	499	365	882	791	358	898
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.33	0.12	0.10	0.62	0.77	0.40	0.11	0.04	0.54	0.17

Intersection Summary

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Existing (2022) NP - PM Pk Hr

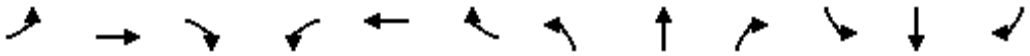
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	41	103	6	69	32	123	407	13	21	280	12
v/c Ratio	0.10	0.25	0.43	0.06	0.42	0.13	0.50	0.15	0.01	0.20	0.08	0.01
Control Delay	62.3	59.7	14.1	61.4	65.4	1.2	57.0	14.1	2.6	65.0	7.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	59.7	14.1	61.4	65.4	1.2	57.0	14.1	2.6	65.0	7.9	0.0
Queue Length 50th (ft)	9	34	0	5	58	0	55	48	0	18	24	0
Queue Length 95th (ft)	28	71	49	20	106	0	87	210	5	47	54	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	201	609	592	209	609	592	355	2702	1237	194	3551	1140
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.17	0.03	0.11	0.05	0.35	0.15	0.01	0.11	0.08	0.01

Intersection Summary

Queues
Tract Map 6
2: Willow Avenue & Behymer Avenue
Existing (2022) NP - PM Pk Hr

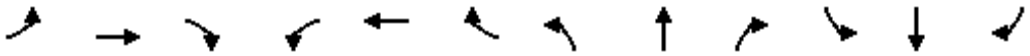
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	13	51	92	35	121	136	513	27	42	402	11
v/c Ratio	0.12	0.25	0.33	0.32	0.51	0.69	0.15	0.02	0.37	0.13	0.01
Control Delay	63.0	56.5	7.8	68.0	58.2	75.7	11.0	0.0	63.6	12.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	56.5	7.8	68.0	58.2	75.7	11.0	0.0	63.6	12.8	0.6
Queue Length 50th (ft)	11	43	0	30	90	117	60	0	30	58	0
Queue Length 95th (ft)	34	79	28	65	150	177	103	0	53	107	0
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	184	612	598	203	596	217	3409	1103	194	3048	972
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.08	0.15	0.17	0.20	0.63	0.15	0.02	0.22	0.13	0.01

Intersection Summary



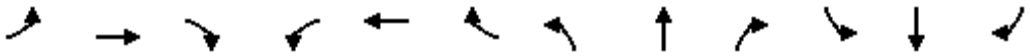
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	344	120	36	335	154	259	699	95	135	494	33
v/c Ratio	0.20	0.65	0.36	0.19	0.61	0.41	0.71	0.23	0.10	0.55	0.18	0.04
Control Delay	68.0	64.1	11.7	67.9	61.8	10.7	73.9	16.5	1.5	73.5	18.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	64.1	11.7	67.9	61.8	10.7	73.9	16.5	1.5	73.5	18.5	0.1
Queue Length 50th (ft)	18	163	1	17	157	0	124	119	0	64	87	0
Queue Length 95th (ft)	38	210	58	37	203	62	167	164	16	98	126	0
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	468	1090	570	439	1090	588	453	2987	970	447	2787	911
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.32	0.21	0.08	0.31	0.26	0.57	0.23	0.10	0.30	0.18	0.04

Intersection Summary



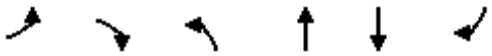
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	22	419	87	20	368	91	112	163	28	82	153	14
v/c Ratio	0.15	0.44	0.18	0.13	0.80	0.20	0.61	0.18	0.03	0.50	0.18	0.02
Control Delay	57.7	40.7	6.9	57.4	59.7	7.4	69.9	24.1	0.1	66.7	25.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	40.7	6.9	57.4	59.7	7.4	69.9	24.1	0.1	66.7	25.3	0.1
Queue Length 50th (ft)	17	134	0	16	294	0	93	84	0	67	80	0
Queue Length 95th (ft)	46	194	36	43	377	40	152	157	0	119	153	0
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1037	529	291	515	505	288	892	807	288	872	791
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.40	0.16	0.07	0.71	0.18	0.39	0.18	0.03	0.28	0.18	0.02

Intersection Summary



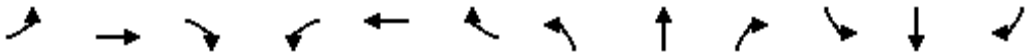
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	361	108	81	320	7	147	46	74	11	25	27
v/c Ratio	0.14	0.68	0.33	0.32	0.46	0.02	0.72	0.05	0.15	0.01	0.01	0.03
Control Delay	62.4	62.6	11.4	65.6	53.1	0.1	79.1	40.8	2.8	30.0	20.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	62.6	11.4	65.6	53.1	0.1	79.1	40.8	2.8	30.0	20.7	0.1
Queue Length 50th (ft)	15	165	0	36	144	0	131	16	0	3	5	0
Queue Length 95th (ft)	34	212	53	64	188	0	198	34	14	10	16	0
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	604	867	464	610	877	473	314	884	479	1297	1813	866
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.42	0.23	0.13	0.36	0.01	0.47	0.05	0.15	0.01	0.01	0.03

Intersection Summary



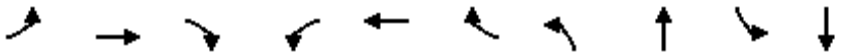
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	83	107	193	358	275	74
v/c Ratio	0.43	0.40	0.68	0.12	0.13	0.07
Control Delay	42.1	11.9	45.6	2.5	9.6	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	11.9	45.6	2.5	9.6	3.3
Queue Length 50th (ft)	43	0	98	18	32	0
Queue Length 95th (ft)	75	34	137	31	57	17
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	547	381	2910	2153	993
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.20	0.51	0.12	0.13	0.07

Intersection Summary



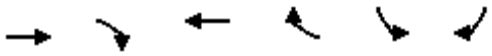
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	441	265	23	410	79	132	426	49	46	269	29
v/c Ratio	0.21	0.83	0.44	0.21	0.78	0.15	0.72	0.23	0.06	0.40	0.16	0.04
Control Delay	72.1	63.7	10.8	72.3	59.7	0.7	85.7	22.8	0.1	77.3	26.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.1	63.7	10.8	72.3	59.7	0.7	85.7	22.8	0.1	77.3	26.8	0.1
Queue Length 50th (ft)	22	404	36	22	369	0	127	129	0	44	84	0
Queue Length 95th (ft)	54	504	106	54	464	2	195	191	0	88	136	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	373	553	624	309	533	542	369	1867	860	312	1684	801
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.80	0.42	0.07	0.77	0.15	0.36	0.23	0.06	0.15	0.16	0.04

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	372	190	39	328	84	159	680	84	507
v/c Ratio	0.11	0.83	0.40	0.27	0.67	0.16	0.70	0.39	0.47	0.32
Control Delay	55.5	60.5	15.3	59.4	47.6	2.1	67.9	23.9	61.8	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	60.5	15.3	59.4	47.6	2.1	67.9	23.9	61.8	26.6
Queue Length 50th (ft)	12	287	40	30	208	0	125	196	66	146
Queue Length 95th (ft)	36	368	97	68	319	12	191	293	118	234
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	157	591	583	157	604	600	304	1764	231	1596
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.63	0.33	0.25	0.54	0.14	0.52	0.39	0.36	0.32

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1670	534	1651	360	67	345
v/c Ratio	0.36	0.41	0.38	0.28	0.11	0.67
Control Delay	7.5	1.6	7.6	0.5	44.7	51.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	1.6	7.6	0.5	44.7	51.2
Queue Length 50th (ft)	136	0	144	0	25	141
Queue Length 95th (ft)	193	36	204	0	43	186
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4670	1302	4333	1295	1310	1088
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.41	0.38	0.28	0.05	0.32

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1401	371	1540	190	512	698
v/c Ratio	0.50	0.23	0.37	0.20	0.29	0.68
Control Delay	18.7	0.3	16.7	2.2	32.2	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	0.3	16.7	2.2	32.2	37.3
Queue Length 50th (ft)	245	0	165	0	114	267
Queue Length 95th (ft)	283	0	186	32	146	347
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2923	1599	4336	992	1749	1022
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.23	0.36	0.19	0.29	0.68

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	381	1425	315	329	1106	138	365	707	282	273	277
v/c Ratio	0.81	0.96	0.52	0.77	0.78	0.27	0.79	0.42	0.73	0.17	0.26
Control Delay	79.0	68.5	19.1	78.4	56.5	18.9	77.6	34.6	77.7	39.5	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.0	68.5	19.1	78.4	56.5	18.9	77.6	34.6	77.7	39.5	4.9
Queue Length 50th (ft)	195	521	88	169	381	37	187	170	145	73	0
Queue Length 95th (ft)	248	#682	196	217	453	100	236	221	191	105	39
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	559	1490	610	559	1424	502	677	1691	671	1617	1063
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.96	0.52	0.59	0.78	0.27	0.54	0.42	0.42	0.17	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	291	79	49	253	135	115	125	77	116	133
v/c Ratio	0.25	0.50	0.24	0.44	0.72	0.37	0.68	0.12	0.08	0.69	0.13
Control Delay	74.3	59.3	11.9	79.9	68.6	25.1	85.2	19.0	4.4	85.3	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.3	59.3	11.9	79.9	68.6	25.1	85.2	19.0	4.4	85.3	18.5
Queue Length 50th (ft)	23	136	1	47	238	48	111	58	0	112	60
Queue Length 95th (ft)	55	176	47	92	317	107	174	117	30	176	120
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	369	810	422	369	429	424	369	1060	936	369	1042
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.36	0.19	0.13	0.59	0.32	0.31	0.12	0.08	0.31	0.13

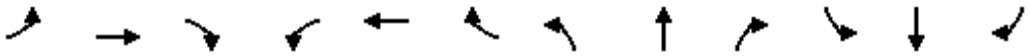
Intersection Summary

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Existing (2022) WP - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	92	261	18	351	70	479	401	18	82	571	113
v/c Ratio	0.27	0.19	0.43	0.17	0.79	0.15	0.61	0.23	0.02	0.57	0.33	0.18
Control Delay	66.7	37.6	6.2	64.4	60.7	2.1	46.6	33.4	3.1	74.8	34.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	37.6	6.2	64.4	60.7	2.1	46.6	33.4	3.1	74.8	34.3	6.7
Queue Length 50th (ft)	25	57	0	15	291	0	210	157	0	71	139	0
Queue Length 95th (ft)	49	84	25	35	298	0	237	192	m6	103	151	26
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	203	617	700	209	609	592	783	1777	850	193	1756	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.37	0.09	0.58	0.12	0.61	0.23	0.02	0.42	0.33	0.18

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
Tract Map 6
2: Willow Avenue & Behymer Avenue
Existing (2022) WP - AM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	159	257	20	236	106	718	20	61	735	94
v/c Ratio	0.66	0.35	0.44	0.19	0.71	0.65	0.27	0.02	0.48	0.30	0.12
Control Delay	84.3	44.6	7.1	64.9	59.7	76.4	20.5	0.1	80.0	14.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.3	44.6	7.1	64.9	59.7	76.4	20.5	0.1	80.0	14.2	0.5
Queue Length 50th (ft)	73	121	0	17	183	91	131	0	56	69	1
Queue Length 95th (ft)	114	153	35	40	218	129	164	0	90	89	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	141	600	684	199	618	199	2638	879	194	2455	806
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.27	0.38	0.10	0.38	0.53	0.27	0.02	0.31	0.30	0.12

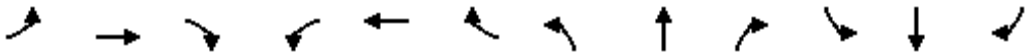
Intersection Summary

Queues

Tract Map 6

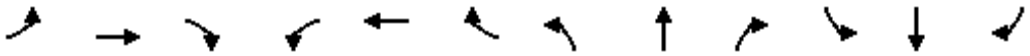
3: Willow Avenue & Shepherd Avenue

Existing (2022) WP - AM Pk Hr



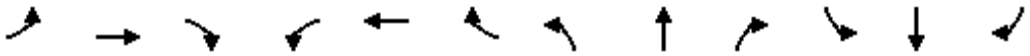
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	290	165	53	377	128	182	667	57	189	841	57
v/c Ratio	0.17	0.57	0.45	0.28	0.63	0.35	0.64	0.24	0.06	0.65	0.29	0.06
Control Delay	67.7	61.9	11.2	69.5	60.9	12.9	74.7	17.7	0.1	74.3	18.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	61.9	11.2	69.5	60.9	12.9	74.7	17.7	0.1	74.3	18.2	0.1
Queue Length 50th (ft)	15	136	0	25	181	7	87	117	0	90	152	0
Queue Length 95th (ft)	33	174	60	47	221	61	123	161	0	126	205	0
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	459	1069	593	426	1058	550	438	2835	924	447	2898	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.27	0.28	0.12	0.36	0.23	0.42	0.24	0.06	0.42	0.29	0.06

Intersection Summary



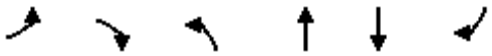
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	426	181	82	412	108	151	179	58	123	189	35
v/c Ratio	0.26	0.48	0.39	0.51	0.79	0.21	0.71	0.24	0.09	0.65	0.27	0.05
Control Delay	60.4	42.1	20.0	67.1	54.6	9.5	72.6	31.1	2.2	71.1	32.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	42.1	20.0	67.1	54.6	9.5	72.6	31.1	2.2	71.1	32.8	0.1
Queue Length 50th (ft)	31	154	57	68	322	10	125	103	0	102	113	0
Queue Length 95th (ft)	64	181	104	110	375	43	176	175	7	150	188	0
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1008	517	283	535	520	285	735	680	285	712	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.42	0.35	0.29	0.77	0.21	0.53	0.24	0.09	0.43	0.27	0.05

Intersection Summary



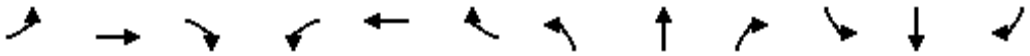
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	406	142	131	354	75	96	137	104	71	278	177
v/c Ratio	0.30	0.69	0.41	0.50	0.51	0.19	0.62	0.17	0.23	0.06	0.16	0.21
Control Delay	65.1	61.0	18.0	68.6	53.4	3.7	77.8	42.3	7.5	32.6	20.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	61.0	18.0	68.6	53.4	3.7	77.8	42.3	7.5	32.6	20.8	8.2
Queue Length 50th (ft)	32	184	27	60	157	0	86	52	0	22	70	24
Queue Length 95th (ft)	54	211	72	86	180	10	131	75	33	40	107	66
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	592	851	456	598	859	466	294	826	453	1158	1718	830
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.48	0.31	0.22	0.41	0.16	0.33	0.17	0.23	0.06	0.16	0.21

Intersection Summary



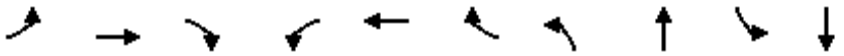
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	101	292	346	342	553	257
v/c Ratio	0.48	0.66	0.71	0.13	0.35	0.32
Control Delay	42.5	12.0	36.3	3.0	17.6	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	12.0	36.3	3.0	17.6	7.8
Queue Length 50th (ft)	52	0	166	18	97	27
Queue Length 95th (ft)	79	33	195	30	133	59
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	677	486	2700	1560	792
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.43	0.71	0.13	0.35	0.32

Intersection Summary



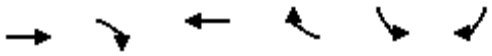
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	352	223	40	417	207	80	385	23	80	616	80
v/c Ratio	0.40	0.63	0.35	0.36	0.75	0.37	0.58	0.24	0.03	0.58	0.38	0.10
Control Delay	77.6	50.7	5.8	76.3	56.5	16.3	83.3	27.6	0.1	83.1	29.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	50.7	5.8	76.3	56.5	16.3	83.3	27.6	0.1	83.1	29.9	0.5
Queue Length 50th (ft)	44	302	0	38	373	54	77	121	0	77	209	0
Queue Length 95th (ft)	85	373	51	76	455	112	127	179	0	127	292	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	389	557	630	309	559	562	362	1588	746	306	1602	768
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.63	0.35	0.13	0.75	0.37	0.22	0.24	0.03	0.26	0.38	0.10

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	302	172	49	457	100	143	430	142	820
v/c Ratio	0.12	0.67	0.37	0.34	0.84	0.19	0.72	0.29	0.71	0.54
Control Delay	55.7	49.7	13.3	61.0	55.1	7.8	74.1	25.8	72.7	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	49.7	13.3	61.0	55.1	7.8	74.1	25.8	72.7	31.0
Queue Length 50th (ft)	13	234	32	38	333	4	113	108	112	247
Queue Length 95th (ft)	37	289	82	79	455	42	182	182	180	378
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	151	572	564	155	593	567	224	1461	228	1508
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.53	0.30	0.32	0.77	0.18	0.64	0.29	0.62	0.54

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1020	522	1843	401	70	776
v/c Ratio	0.25	0.44	0.50	0.31	0.08	0.97
Control Delay	11.1	2.1	10.8	0.9	36.0	68.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	2.1	10.8	0.9	36.0	68.4
Queue Length 50th (ft)	104	0	285	2	22	342
Queue Length 95th (ft)	123	41	318	25	42	#488
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4002	1184	3704	1283	925	800
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.44	0.50	0.31	0.08	0.97

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	902	237	1840	88	504	560
v/c Ratio	0.30	0.15	0.41	0.09	0.33	0.55
Control Delay	12.8	0.2	15.1	2.5	35.2	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	0.2	15.1	2.5	35.2	21.9
Queue Length 50th (ft)	124	0	199	0	115	120
Queue Length 95th (ft)	146	0	221	22	148	184
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2972	1583	4454	971	1520	1023
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.15	0.41	0.09	0.33	0.55

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	291	895	230	159	1098	172	249	412	183	331	518
v/c Ratio	0.75	0.54	0.35	0.54	0.72	0.32	0.70	0.24	0.57	0.19	0.40
Control Delay	78.9	44.4	5.8	74.8	52.3	21.5	77.4	29.3	74.4	36.6	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.9	44.4	5.8	74.8	52.3	21.5	77.4	29.3	74.4	36.6	3.8
Queue Length 50th (ft)	149	271	0	80	365	59	128	87	93	85	0
Queue Length 95th (ft)	195	325	63	119	440	133	172	120	134	118	44
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	548	1643	666	553	1521	532	664	1750	671	1759	1291
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.54	0.35	0.29	0.72	0.32	0.38	0.24	0.27	0.19	0.40

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	311	66	38	297	385	151	96	35	193	149
v/c Ratio	0.22	0.41	0.17	0.37	0.68	0.82	0.75	0.11	0.04	0.79	0.17
Control Delay	73.5	51.1	6.5	77.8	59.4	49.4	85.4	28.4	0.1	84.6	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	51.1	6.5	77.8	59.4	49.4	85.4	28.4	0.1	84.6	25.4
Queue Length 50th (ft)	20	135	0	37	266	248	145	55	0	186	81
Queue Length 95th (ft)	50	168	29	76	337	346	215	117	0	262	159
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	365	885	454	365	474	498	365	878	789	335	891
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.35	0.15	0.10	0.63	0.77	0.41	0.11	0.04	0.58	0.17

Intersection Summary

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Existing (2022) WP - PM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	41	122	6	69	32	134	416	13	21	296	12
v/c Ratio	0.10	0.25	0.49	0.06	0.42	0.13	0.53	0.15	0.01	0.20	0.08	0.01
Control Delay	62.3	59.7	15.9	61.4	65.4	1.2	56.8	13.9	2.8	65.0	8.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	59.7	15.9	61.4	65.4	1.2	56.8	13.9	2.8	65.0	8.1	0.0
Queue Length 50th (ft)	9	34	0	5	58	0	60	65	0	18	26	0
Queue Length 95th (ft)	28	71	59	20	106	0	93	210	5	47	57	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	201	609	600	209	609	592	355	2702	1237	194	3538	1136
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.20	0.03	0.11	0.05	0.38	0.15	0.01	0.11	0.08	0.01

Intersection Summary

Queues

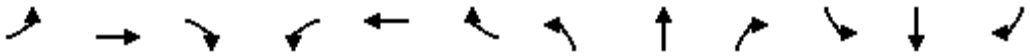
Tract Map 6

2: Willow Avenue & Behymer Avenue

Existing (2022) WP - PM Pk Hr

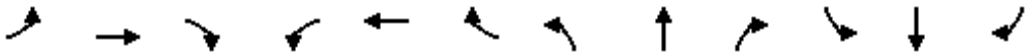
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	13	55	92	35	133	136	524	27	58	422	11
v/c Ratio	0.12	0.26	0.32	0.32	0.54	0.69	0.16	0.02	0.46	0.14	0.01
Control Delay	63.0	55.9	7.5	68.0	57.6	75.7	11.8	0.0	66.4	13.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	55.9	7.5	68.0	57.6	75.7	11.8	0.0	66.4	13.3	0.6
Queue Length 50th (ft)	11	47	0	30	97	117	63	0	46	61	0
Queue Length 95th (ft)	34	82	28	65	160	177	110	0	68	115	0
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	184	612	598	203	592	217	3353	1087	194	3022	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.09	0.15	0.17	0.22	0.63	0.16	0.02	0.30	0.14	0.01

Intersection Summary



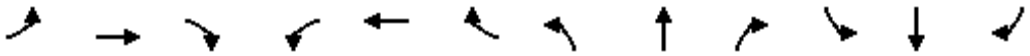
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	384	120	38	360	165	259	699	98	153	494	33
v/c Ratio	0.20	0.67	0.34	0.20	0.61	0.42	0.71	0.24	0.10	0.59	0.18	0.04
Control Delay	68.0	63.2	11.0	68.0	60.1	12.0	73.9	17.9	1.8	74.0	19.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	63.2	11.0	68.0	60.1	12.0	73.9	17.9	1.8	74.0	19.6	0.1
Queue Length 50th (ft)	18	182	1	18	167	8	124	124	0	73	90	0
Queue Length 95th (ft)	38	229	56	38	212	71	167	173	19	109	131	0
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	468	1090	570	439	1090	589	453	2901	945	447	2725	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.35	0.21	0.09	0.33	0.28	0.57	0.24	0.10	0.34	0.18	0.04

Intersection Summary



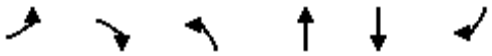
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	22	487	87	39	408	91	112	163	58	82	153	14
v/c Ratio	0.15	0.54	0.19	0.26	0.79	0.18	0.61	0.20	0.08	0.50	0.19	0.02
Control Delay	57.7	43.8	6.5	60.3	54.6	6.8	69.9	26.7	2.0	66.7	27.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	43.8	6.5	60.3	54.6	6.8	69.9	26.7	2.0	66.7	27.9	0.1
Queue Length 50th (ft)	17	185	0	31	325	0	93	87	0	67	83	0
Queue Length 95th (ft)	46	216	34	69	406	38	152	164	12	119	160	0
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1007	517	291	542	527	288	831	758	288	811	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.48	0.17	0.13	0.75	0.17	0.39	0.20	0.08	0.28	0.19	0.02

Intersection Summary



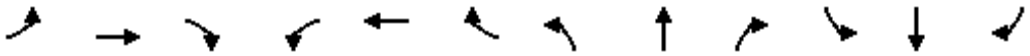
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	128	361	108	81	320	55	147	237	74	39	139	84
v/c Ratio	0.49	0.67	0.30	0.32	0.61	0.15	0.60	0.27	0.14	0.03	0.08	0.10
Control Delay	68.4	62.3	4.1	65.6	60.9	0.9	67.9	43.7	0.6	30.0	21.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	62.3	4.1	65.6	60.9	0.9	67.9	43.7	0.6	30.0	21.1	2.1
Queue Length 50th (ft)	58	165	0	36	144	0	128	92	0	11	35	0
Queue Length 95th (ft)	92	211	18	64	192	0	199	132	0	26	62	18
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	604	867	497	610	876	507	243	884	511	1294	1732	832
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.42	0.22	0.13	0.37	0.11	0.60	0.27	0.14	0.03	0.08	0.10

Intersection Summary



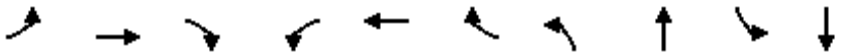
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	100	107	193	564	398	84
v/c Ratio	0.49	0.38	0.61	0.21	0.20	0.09
Control Delay	42.9	11.3	40.6	3.2	11.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	11.3	40.6	3.2	11.3	3.3
Queue Length 50th (ft)	51	0	96	33	53	0
Queue Length 95th (ft)	85	34	138	51	83	18
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	547	315	2732	1952	912
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.20	0.61	0.21	0.20	0.09

Intersection Summary



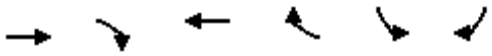
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	56	441	265	23	410	79	132	570	49	46	355	49
v/c Ratio	0.46	0.78	0.42	0.21	0.79	0.16	0.72	0.32	0.06	0.40	0.22	0.06
Control Delay	79.3	57.7	10.7	72.3	62.0	3.5	85.7	25.3	2.2	77.3	28.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.3	57.7	10.7	72.3	62.0	3.5	85.7	25.3	2.2	77.3	28.7	0.2
Queue Length 50th (ft)	54	403	37	22	367	0	127	182	0	44	115	0
Queue Length 95th (ft)	100	499	106	54	479	22	195	261	12	88	179	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	373	584	644	321	521	512	369	1800	819	312	1617	759
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.76	0.41	0.07	0.79	0.15	0.36	0.32	0.06	0.15	0.22	0.06

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	372	190	39	328	84	159	820	84	595
v/c Ratio	0.17	0.83	0.41	0.27	0.73	0.19	0.72	0.46	0.47	0.37
Control Delay	56.7	60.5	18.1	59.4	53.0	6.2	71.0	25.3	61.8	26.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	60.5	18.1	59.4	53.0	6.2	71.0	25.3	61.8	26.8
Queue Length 50th (ft)	18	287	51	30	247	0	125	250	66	177
Queue Length 95th (ft)	47	368	109	68	319	32	196	367	118	268
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	157	591	572	157	591	566	252	1769	231	1610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.63	0.33	0.25	0.55	0.15	0.63	0.46	0.36	0.37

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1677	534	1696	370	67	345
v/c Ratio	0.36	0.41	0.39	0.29	0.11	0.67
Control Delay	7.5	1.6	7.6	0.6	44.7	51.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	1.6	7.6	0.6	44.7	51.2
Queue Length 50th (ft)	138	0	148	0	25	141
Queue Length 95th (ft)	194	36	210	0	43	186
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4670	1302	4323	1295	1310	1088
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.41	0.39	0.29	0.05	0.32

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1408	371	1596	190	512	785
v/c Ratio	0.49	0.23	0.38	0.20	0.30	0.78
Control Delay	18.2	0.3	16.4	2.2	32.6	42.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	0.3	16.4	2.2	32.6	42.1
Queue Length 50th (ft)	246	0	173	0	114	317
Queue Length 95th (ft)	284	0	194	32	146	407
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2923	1599	4336	992	1714	1002
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.23	0.37	0.19	0.30	0.78

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	475	1425	315	329	1106	148	365	736	289	291	333
v/c Ratio	0.89	0.96	0.52	0.77	0.83	0.31	0.79	0.44	0.74	0.18	0.30
Control Delay	84.4	68.5	19.1	78.4	60.7	21.2	77.6	35.7	77.8	39.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.4	68.5	19.1	78.4	60.7	21.2	77.6	35.7	77.8	39.7	4.6
Queue Length 50th (ft)	244	521	88	169	394	47	187	182	148	78	0
Queue Length 95th (ft)	#328	#682	196	217	453	112	236	235	195	110	42
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	559	1490	610	559	1334	475	677	1683	671	1617	1102
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.96	0.52	0.59	0.83	0.31	0.54	0.44	0.43	0.18	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	303	87	49	275	135	129	125	77	116	133
v/c Ratio	0.25	0.49	0.26	0.44	0.74	0.36	0.71	0.12	0.08	0.69	0.13
Control Delay	74.3	57.9	13.9	79.9	68.8	24.2	85.7	19.8	4.6	85.3	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.3	57.9	13.9	79.9	68.8	24.2	85.7	19.8	4.6	85.3	19.9
Queue Length 50th (ft)	23	140	7	47	258	47	124	60	0	112	63
Queue Length 95th (ft)	55	181	54	92	340	105	191	119	30	176	126
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	369	810	422	369	433	428	369	1042	922	369	1012
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.37	0.21	0.13	0.64	0.32	0.35	0.12	0.08	0.31	0.13

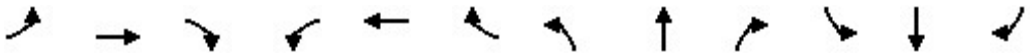
Intersection Summary

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Near Term (2026) WP - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	93	295	25	355	70	572	568	22	82	771	113
v/c Ratio	0.27	0.20	0.48	0.24	0.79	0.15	0.62	0.32	0.03	0.57	0.50	0.20
Control Delay	66.7	39.6	6.5	66.0	60.6	2.1	39.7	35.0	4.4	74.8	40.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	39.6	6.5	66.0	60.6	2.1	39.7	35.0	4.4	74.8	40.1	7.0
Queue Length 50th (ft)	25	65	0	21	294	0	250	240	0	71	207	0
Queue Length 95th (ft)	49	86	25	44	300	0	#289	271	m8	103	205	26
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	203	615	721	209	609	592	919	1770	847	193	1546	559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.41	0.12	0.58	0.12	0.62	0.32	0.03	0.42	0.50	0.20

Intersection Summary

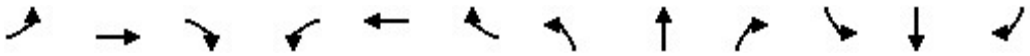
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Willow Avenue & Behymer Avenue

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	168	301	27	248	165	981	24	62	975	95
v/c Ratio	0.61	0.35	0.48	0.25	0.73	0.70	0.38	0.03	0.48	0.45	0.13
Control Delay	77.3	43.0	6.6	66.5	60.0	71.4	23.4	0.1	79.6	16.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	43.0	6.6	66.5	60.0	71.4	23.4	0.1	79.6	16.4	0.5
Queue Length 50th (ft)	75	127	0	23	194	140	195	0	56	93	1
Queue Length 95th (ft)	113	155	34	48	229	181	241	0	94	113	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	180	600	714	199	578	242	2563	857	194	2173	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.28	0.42	0.14	0.43	0.68	0.38	0.03	0.32	0.45	0.13

Intersection Summary

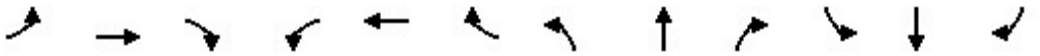
Queues
3: Willow Avenue & Shepherd Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	461	170	338	702	277	210	991	242	285	1443	228
v/c Ratio	0.53	0.66	0.41	0.84	0.78	0.56	0.68	0.49	0.34	0.74	0.67	0.31
Control Delay	73.4	57.8	17.4	81.4	56.4	27.0	74.5	35.2	12.5	73.8	37.4	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.4	57.8	17.4	81.4	56.4	27.0	74.5	35.2	12.5	73.8	37.4	15.7
Queue Length 50th (ft)	58	215	37	162	325	116	100	254	44	136	398	61
Queue Length 95th (ft)	89	245	93	#214	361	188	138	342	124	176	519	143
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	459	1069	564	426	1064	562	438	2015	719	456	2158	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.43	0.30	0.79	0.66	0.49	0.48	0.49	0.34	0.63	0.67	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



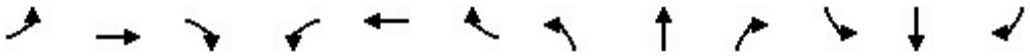
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	100	795	287	176	862	158	227	306	106	244	546	139
v/c Ratio	0.57	0.76	0.54	0.78	1.44	0.28	0.87	0.61	0.21	0.90	1.06	0.28
Control Delay	68.7	47.9	30.8	77.0	240.8	15.9	84.6	48.0	7.7	88.1	103.2	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	47.9	30.8	77.0	240.8	15.9	84.6	48.0	7.7	88.1	103.2	15.9
Queue Length 50th (ft)	83	323	138	145	~970	39	186	229	0	203	~529	30
Queue Length 95th (ft)	129	380	216	203	#1162	87	#275	303	38	#306	#673	74
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1049	534	283	599	571	285	502	504	285	513	502
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.76	0.54	0.62	1.44	0.28	0.80	0.61	0.21	0.86	1.06	0.28

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
9: Clovis Avenue & Shepherd Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	824	161	257	782	136	134	233	159	183	458	242
v/c Ratio	0.50	0.81	0.31	0.71	0.70	0.24	0.72	0.28	0.34	0.28	0.40	0.42
Control Delay	68.7	53.7	15.3	71.2	45.3	10.2	80.0	44.0	12.5	50.3	39.2	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	53.7	15.3	71.2	45.3	10.2	80.0	44.0	12.5	50.3	39.2	23.4
Queue Length 50th (ft)	59	356	34	118	314	17	120	91	19	76	175	93
Queue Length 95th (ft)	86	407	82	147	356	55	169	119	64	104	221	161
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	592	1012	523	598	1124	576	294	826	469	656	1135	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.81	0.31	0.43	0.70	0.24	0.46	0.28	0.34	0.28	0.40	0.42

Intersection Summary

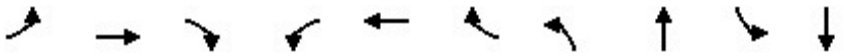
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	107	293	349	514	942	266
v/c Ratio	0.50	0.66	0.67	0.19	0.63	0.37
Control Delay	43.1	11.9	33.6	3.2	22.5	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	11.9	33.6	3.2	22.5	12.4
Queue Length 50th (ft)	55	0	165	30	197	52
Queue Length 95th (ft)	83	33	196	44	239	94
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	678	518	2694	1490	727
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.43	0.67	0.19	0.63	0.37

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	47	405	392	77	459	207	176	531	23	80	946	83
v/c Ratio	0.41	0.72	0.54	0.57	0.74	0.34	0.78	0.36	0.03	0.58	0.73	0.13
Control Delay	77.9	54.1	9.0	82.5	52.4	14.8	84.8	32.3	0.1	83.1	46.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.9	54.1	9.0	82.5	52.4	14.8	84.8	32.3	0.1	83.1	46.4	1.1
Queue Length 50th (ft)	45	351	31	74	403	52	169	185	0	77	422	0
Queue Length 95th (ft)	86	437	104	124	488	106	234	261	0	127	#615	2
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	365	572	726	309	623	611	362	1468	697	306	1298	647
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.71	0.54	0.25	0.74	0.34	0.49	0.36	0.03	0.26	0.73	0.13

Intersection Summary

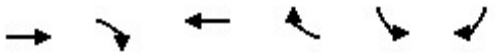
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	320	173	49	470	117	143	632	173	1302
v/c Ratio	0.12	0.70	0.36	0.34	0.84	0.21	0.67	0.44	0.80	0.89
Control Delay	55.7	50.4	12.5	61.0	55.4	5.0	68.0	29.6	80.1	44.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	50.4	12.5	61.0	55.4	5.0	68.0	29.6	80.1	44.4
Queue Length 50th (ft)	13	248	30	38	340	0	113	187	136	487
Queue Length 95th (ft)	37	307	80	79	470	35	174	280	#240	#841
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	151	572	567	155	596	594	294	1424	231	1464
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.56	0.31	0.32	0.79	0.20	0.49	0.44	0.75	0.89

Intersection Summary

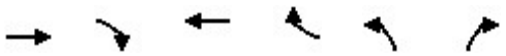
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1116	544	2106	472	78	776
v/c Ratio	0.28	0.46	0.58	0.37	0.08	0.95
Control Delay	11.9	2.2	11.6	1.3	35.2	65.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	2.2	11.6	1.3	35.2	65.0
Queue Length 50th (ft)	120	0	350	7	25	344
Queue Length 95th (ft)	139	42	388	38	45	#486
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	3943	1183	3627	1283	957	815
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.46	0.58	0.37	0.08	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	999	248	2172	92	514	664
v/c Ratio	0.34	0.16	0.49	0.09	0.34	0.67
Control Delay	13.1	0.2	16.1	2.5	35.3	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	0.2	16.1	2.5	35.3	30.5
Queue Length 50th (ft)	136	0	250	0	118	196
Queue Length 95th (ft)	157	0	274	23	151	272
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2972	1583	4454	973	1520	987
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.16	0.49	0.09	0.34	0.67

Intersection Summary

Queues

15: Clovis Avenue & Herndon Avenue

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	383	954	268	163	1143	190	269	461	212	441	778
v/c Ratio	0.82	0.58	0.39	0.55	0.82	0.38	0.72	0.27	0.63	0.25	0.58
Control Delay	79.6	45.3	6.3	75.0	58.4	24.3	77.7	31.7	75.9	38.1	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.6	45.3	6.3	75.0	58.4	24.3	77.7	31.7	75.9	38.1	10.4
Queue Length 50th (ft)	196	293	4	83	400	72	138	104	109	117	68
Queue Length 95th (ft)	250	350	73	122	473	152	183	141	151	156	148
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	548	1641	687	553	1400	502	664	1733	671	1735	1342
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.58	0.39	0.29	0.82	0.38	0.41	0.27	0.32	0.25	0.58

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	598	146	39	466	385	217	101	40	193	176
v/c Ratio	0.33	0.47	0.24	0.38	0.70	0.62	0.81	0.17	0.07	0.79	0.31
Control Delay	76.6	38.9	16.9	78.1	47.7	35.7	83.5	39.9	0.2	84.5	42.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.6	38.9	16.9	78.1	47.7	35.7	83.5	39.9	0.2	84.5	42.0
Queue Length 50th (ft)	32	242	45	38	397	251	208	70	0	185	126
Queue Length 95th (ft)	69	295	98	77	517	360	287	134	2	262	220
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	365	1267	616	365	670	622	365	610	571	358	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.47	0.24	0.11	0.70	0.62	0.59	0.17	0.07	0.54	0.31

Intersection Summary

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Near Term (2026) WP - PM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	44	209	18	71	32	188	663	27	21	520	12
v/c Ratio	0.10	0.27	0.63	0.17	0.36	0.12	0.63	0.25	0.02	0.20	0.15	0.01
Control Delay	62.3	60.0	16.0	64.4	59.7	1.0	55.5	18.9	6.3	65.0	10.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	60.0	16.0	64.4	59.7	1.0	55.5	18.9	6.3	65.0	10.3	0.0
Queue Length 50th (ft)	9	37	0	15	60	0	84	191	1	18	52	0
Queue Length 95th (ft)	28	73	75	42	108	0	121	351	18	47	105	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	201	609	658	209	609	586	383	2637	1207	194	3378	1087
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.32	0.09	0.12	0.05	0.49	0.25	0.02	0.11	0.15	0.01

Intersection Summary

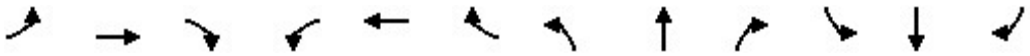
Queues
2: Willow Avenue & Behymer Avenue

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	65	145	48	146	193	851	41	63	761	14
v/c Ratio	0.13	0.32	0.48	0.41	0.53	0.63	0.26	0.04	0.49	0.29	0.02
Control Delay	63.2	58.2	13.2	70.4	55.6	62.2	13.6	0.1	64.6	19.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	58.2	13.2	70.4	55.6	62.2	13.6	0.1	64.6	19.1	0.7
Queue Length 50th (ft)	12	55	0	41	108	160	113	0	45	139	0
Queue Length 95th (ft)	34	93	56	81	173	233	187	0	67	219	2
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	184	612	618	203	593	305	3258	1059	194	2630	855
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.11	0.23	0.24	0.25	0.63	0.26	0.04	0.32	0.29	0.02

Intersection Summary

Queues

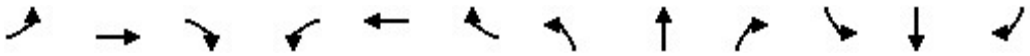
3: Willow Avenue & Shepherd Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	268	733	131	362	632	323	297	1470	502	351	1065	210
v/c Ratio	0.72	0.79	0.26	0.86	0.63	0.57	0.76	0.87	0.74	0.81	0.61	0.34
Control Delay	74.0	56.7	9.3	82.7	48.5	23.7	75.7	53.0	31.3	76.7	43.1	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.0	56.7	9.3	82.7	48.5	23.7	75.7	53.0	31.3	76.7	43.1	17.2
Queue Length 50th (ft)	128	342	9	174	273	119	142	489	239	167	311	55
Queue Length 95th (ft)	172	392	59	#248	331	216	191	#647	#446	#233	396	137
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	468	1090	570	439	1090	602	451	1690	677	461	1744	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.67	0.23	0.82	0.58	0.54	0.66	0.87	0.74	0.76	0.61	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



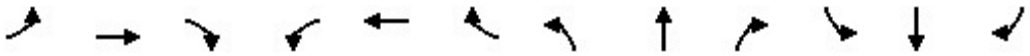
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	147	1055	165	113	933	216	210	526	161	162	372	111
v/c Ratio	0.70	0.92	0.29	0.61	1.61	0.39	0.83	0.93	0.28	0.74	0.70	0.22
Control Delay	71.7	56.4	16.8	69.8	315.3	23.2	80.6	69.8	11.6	73.9	50.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.7	56.4	16.8	69.8	315.3	23.2	80.6	69.8	11.6	73.9	50.9	11.4
Queue Length 50th (ft)	121	445	43	93	~1122	79	172	432	21	133	286	12
Queue Length 95th (ft)	186	#633	106	152	#1449	163	#276	#713	81	203	408	60
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1145	575	291	578	555	288	563	567	288	529	516
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.92	0.29	0.39	1.61	0.39	0.73	0.93	0.28	0.56	0.70	0.22

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
9: Clovis Avenue & Shepherd Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	196	908	163	173	920	149	214	413	184	138	279	164
v/c Ratio	0.63	0.76	0.27	0.59	0.78	0.25	0.83	0.47	0.38	0.23	0.28	0.31
Control Delay	70.6	47.1	13.9	70.1	48.4	12.4	82.9	47.1	20.2	50.8	41.7	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	47.1	13.9	70.1	48.4	12.4	82.9	47.1	20.2	50.8	41.7	15.9
Queue Length 50th (ft)	90	386	34	79	396	26	191	170	53	56	106	35
Queue Length 95th (ft)	129	485	94	117	499	82	276	223	124	88	152	100
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	604	1190	596	610	1181	601	314	884	479	611	995	528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.76	0.27	0.28	0.78	0.25	0.68	0.47	0.38	0.23	0.28	0.31

Intersection Summary

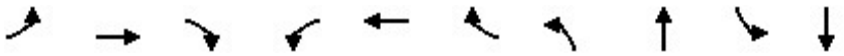
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	111	110	194	1000	673	91
v/c Ratio	0.52	0.38	0.53	0.37	0.37	0.11
Control Delay	43.4	11.0	36.0	4.1	13.9	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	11.0	36.0	4.1	13.9	5.9
Queue Length 50th (ft)	57	0	94	70	104	8
Queue Length 95th (ft)	91	33	139	103	145	29
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	549	368	2716	1828	847
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.20	0.53	0.37	0.37	0.11

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	502	418	46	478	79	332	938	49	46	588	51
v/c Ratio	0.48	0.75	0.55	0.40	0.73	0.12	0.90	0.61	0.07	0.40	0.61	0.10
Control Delay	79.7	51.0	13.4	77.4	50.5	0.6	84.7	37.1	0.2	77.3	52.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.7	51.0	13.4	77.4	50.5	0.6	84.7	37.1	0.2	77.3	52.4	0.4
Queue Length 50th (ft)	57	445	88	44	419	0	309	375	0	44	274	0
Queue Length 95th (ft)	105	570	192	88	545	2	#500	501	0	88	350	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	373	671	764	309	657	637	384	1529	723	312	969	517
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.75	0.55	0.15	0.73	0.12	0.86	0.61	0.07	0.15	0.61	0.10

Intersection Summary

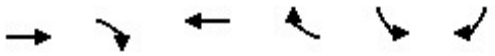
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	388	191	39	350	126	160	1338	116	958
v/c Ratio	0.17	0.84	0.39	0.27	0.75	0.26	0.70	0.82	0.60	0.61
Control Delay	56.7	60.1	14.9	59.4	53.5	6.5	68.0	37.2	66.1	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	60.1	14.9	59.4	53.5	6.5	68.0	37.2	66.1	32.8
Queue Length 50th (ft)	18	299	40	30	263	0	126	518	92	332
Queue Length 95th (ft)	47	381	97	68	339	43	192	#827	151	#542
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	157	592	584	157	592	591	304	1629	232	1566
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.66	0.33	0.25	0.59	0.21	0.53	0.82	0.50	0.61

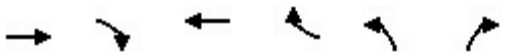
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1773	551	1959	426	74	345
v/c Ratio	0.38	0.42	0.46	0.33	0.12	0.67
Control Delay	7.8	1.6	8.3	0.7	44.6	52.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	1.6	8.3	0.7	44.6	52.3
Queue Length 50th (ft)	150	0	184	0	27	145
Queue Length 95th (ft)	210	37	258	0	47	190
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4651	1304	4279	1295	1310	1083
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.42	0.46	0.33	0.06	0.32

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1507	378	1878	205	536	1018
v/c Ratio	0.52	0.24	0.43	0.21	0.33	1.07
Control Delay	17.9	0.3	16.4	2.2	33.7	88.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	0.3	16.4	2.2	33.7	88.9
Queue Length 50th (ft)	271	0	214	0	120	~521
Queue Length 95th (ft)	312	0	237	34	153	#669
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2923	1599	4336	998	1643	953
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.24	0.43	0.21	0.33	1.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	705	1488	344	332	1184	211	405	875	329	376	504
v/c Ratio	1.26	1.00	0.56	0.78	0.92	0.44	0.81	0.53	0.77	0.24	0.42
Control Delay	182.1	77.8	21.2	78.3	68.0	26.9	76.9	40.6	78.2	41.8	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	182.1	77.8	21.2	78.3	68.0	26.9	76.9	40.6	78.2	41.8	4.4
Queue Length 50th (ft)	~459	~557	108	170	430	88	207	242	169	105	0
Queue Length 95th (ft)	#588	#732	225	218	#510	170	258	304	217	143	48
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	559	1486	615	559	1292	476	677	1639	671	1558	1193
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.00	0.56	0.59	0.92	0.44	0.60	0.53	0.49	0.24	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	616	169	55	694	135	297	128	80	116	174
v/c Ratio	0.42	0.45	0.26	0.48	0.95	0.20	0.90	0.20	0.13	0.69	0.38
Control Delay	79.2	36.6	18.8	80.8	67.9	15.0	88.1	37.2	7.8	85.3	48.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.2	36.6	18.8	80.8	67.9	15.0	88.1	37.2	7.8	85.3	48.1
Queue Length 50th (ft)	44	239	59	53	666	36	282	89	0	112	137
Queue Length 95th (ft)	86	311	124	100	#975	89	#421	151	40	176	215
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	369	1374	662	369	731	668	369	640	597	369	458
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.45	0.26	0.15	0.95	0.20	0.80	0.20	0.13	0.31	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

1: Willow Avenue & International Avenue

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	25	101	250	46	486	84	478	478	30	71	664	98
v/c Ratio	0.23	0.19	0.39	0.40	0.85	0.15	0.71	0.30	0.04	0.53	0.42	0.17
Control Delay	65.9	35.0	5.4	70.2	57.4	2.8	44.2	32.4	7.4	73.7	38.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	35.0	5.4	70.2	57.4	2.8	44.2	32.4	7.4	73.7	38.4	5.4
Queue Length 50th (ft)	21	64	0	40	398	0	220	201	2	61	174	0
Queue Length 95th (ft)	52	102	57	81	488	20	m#393	m263	m15	111	215	34
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	203	631	703	209	632	610	669	1620	785	192	1573	566
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.16	0.36	0.22	0.77	0.14	0.71	0.30	0.04	0.37	0.42	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queues

2: Willow Avenue & Behymer Avenue

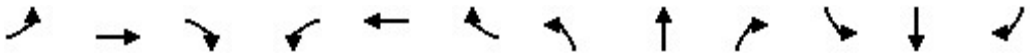
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	78	170	272	108	566	149	865	22	60	873	86
v/c Ratio	0.57	0.27	0.38	0.68	0.93	0.83	0.48	0.03	0.47	0.56	0.15
Control Delay	75.5	34.3	5.3	80.1	64.6	94.0	36.2	0.1	91.3	22.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	34.3	5.3	80.1	64.6	94.0	36.2	0.1	91.3	22.9	0.7
Queue Length 50th (ft)	67	108	0	93	460	129	222	0	55	103	0
Queue Length 95th (ft)	120	174	63	154	#723	#240	279	0	105	127	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	180	631	716	199	609	192	1803	639	194	1566	558
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.27	0.38	0.54	0.93	0.78	0.48	0.03	0.31	0.56	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

3: Willow Avenue & Shepherd Avenue

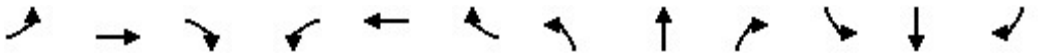


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	442	311	335	664	260	424	996	348	280	1450	229
v/c Ratio	0.53	0.66	0.63	0.84	0.77	0.54	0.76	0.48	0.45	0.73	0.79	0.36
Control Delay	73.4	58.9	19.1	81.2	56.6	25.9	66.9	34.0	12.7	73.8	46.7	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.4	58.9	19.1	81.2	56.6	25.9	66.9	34.0	12.7	73.8	46.7	19.1
Queue Length 50th (ft)	58	207	61	160	307	102	198	251	64	134	452	70
Queue Length 95th (ft)	92	246	154	#225	357	183	255	347	180	178	#638	163
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	459	1069	643	426	1058	560	560	2067	776	455	1828	639
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.41	0.48	0.79	0.63	0.46	0.76	0.48	0.45	0.62	0.79	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
6: Minnewawa Avenue & Shepherd Avenue

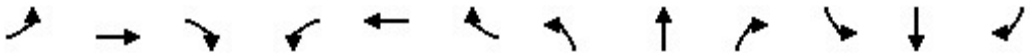


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	96	739	396	138	760	152	237	337	91	360	970	134
v/c Ratio	0.56	0.67	0.69	0.68	1.26	0.26	0.89	0.69	0.19	1.26	1.91	0.27
Control Delay	68.4	43.6	35.7	72.0	168.2	15.1	86.8	51.9	8.0	187.4	446.8	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	43.6	35.7	72.0	168.2	15.1	86.8	51.9	8.0	187.4	446.8	15.2
Queue Length 50th (ft)	80	284	211	114	~788	35	196	257	0	~380	~1272	27
Queue Length 95th (ft)	134	379	354	178	#1091	94	#333	367	42	#576	#1527	81
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1099	571	283	602	574	285	487	481	285	507	497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.67	0.69	0.49	1.26	0.26	0.83	0.69	0.19	1.26	1.91	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



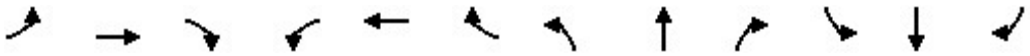
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	89	778	228	345	734	165	127	154	188	129	475	224
v/c Ratio	0.36	0.85	0.47	0.77	0.65	0.28	0.70	0.19	0.37	0.20	0.41	0.38
Control Delay	66.3	58.6	25.7	70.1	43.3	12.2	79.6	42.6	7.7	49.2	39.0	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.3	58.6	25.7	70.1	43.3	12.2	79.6	42.6	7.7	49.2	39.0	21.3
Queue Length 50th (ft)	40	343	87	158	289	30	114	58	0	52	181	77
Queue Length 95th (ft)	69	#466	177	205	360	86	177	91	62	84	251	165
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	592	924	487	598	1137	587	294	826	511	660	1151	588
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.84	0.47	0.58	0.65	0.28	0.43	0.19	0.37	0.20	0.41	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

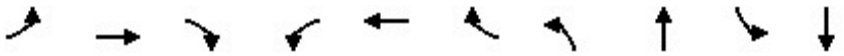
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	88	254	308	440	905	314
v/c Ratio	0.44	0.63	0.61	0.16	0.59	0.41
Control Delay	41.9	12.3	32.5	2.9	20.4	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	12.3	32.5	2.9	20.4	11.2
Queue Length 50th (ft)	45	0	145	23	177	55
Queue Length 95th (ft)	86	65	223	44	271	136
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	651	504	2718	1543	767
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.39	0.61	0.16	0.59	0.41

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	66	435	389	75	512	253	175	463	23	125	796	117
v/c Ratio	0.52	0.64	0.50	0.56	0.71	0.37	0.77	0.39	0.04	0.71	0.73	0.21
Control Delay	81.1	45.6	9.6	82.4	47.1	17.9	84.9	39.8	0.1	86.0	51.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.1	45.6	9.6	82.4	47.1	17.9	84.9	39.8	0.1	86.0	51.6	5.4
Queue Length 50th (ft)	64	351	44	73	431	81	168	182	0	121	366	0
Queue Length 95th (ft)	114	498	143	126	602	166	243	247	0	187	476	38
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	365	676	778	309	720	686	362	1185	583	306	1092	566
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.64	0.50	0.24	0.71	0.37	0.48	0.39	0.04	0.41	0.73	0.21

Intersection Summary

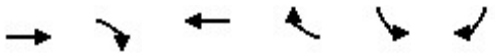


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	317	210	50	455	118	303	625	176	1203
v/c Ratio	0.11	0.70	0.43	0.35	0.82	0.21	0.84	0.44	0.81	1.03
Control Delay	55.4	50.6	14.6	61.3	53.8	5.2	68.8	29.1	81.0	76.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	50.6	14.6	61.3	53.8	5.2	68.8	29.1	81.0	76.4
Queue Length 50th (ft)	11	246	44	39	327	0	227	183	138	~575
Queue Length 95th (ft)	34	309	103	80	459	37	#444	278	#252	#774
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	151	572	578	155	596	594	361	1421	231	1166
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.55	0.36	0.32	0.76	0.20	0.84	0.44	0.76	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

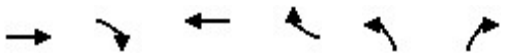


Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1313	956	2226	494	83	837
v/c Ratio	0.33	0.71	0.61	0.39	0.09	1.04
Control Delay	12.4	4.1	12.4	1.4	35.3	87.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	4.1	12.4	1.4	35.3	87.4
Queue Length 50th (ft)	146	0	383	11	26	~421
Queue Length 95th (ft)	168	49	425	43	47	#563
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	3943	1341	3642	1283	957	802
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.71	0.61	0.39	0.09	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1172	254	2251	101	528	657
v/c Ratio	0.39	0.16	0.51	0.10	0.35	0.70
Control Delay	13.8	0.2	16.4	2.4	35.4	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	0.2	16.4	2.4	35.4	35.6
Queue Length 50th (ft)	161	0	262	0	121	223
Queue Length 95th (ft)	181	0	287	24	155	301
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2972	1583	4454	976	1520	941
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.16	0.51	0.10	0.35	0.70

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	411	1006	391	211	1196	197	409	650	212	488	723
v/c Ratio	0.84	0.63	0.52	0.65	0.87	0.40	0.81	0.37	0.63	0.32	0.59
Control Delay	80.8	47.4	8.1	77.3	62.3	26.0	76.9	35.2	75.9	43.3	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.8	47.4	8.1	77.3	62.3	26.0	76.9	35.2	75.9	43.3	13.0
Queue Length 50th (ft)	210	316	20	108	429	80	209	162	109	140	78
Queue Length 95th (ft)	269	382	114	150	#525	161	260	209	151	185	161
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	548	1602	746	553	1370	492	664	1736	671	1541	1216
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.63	0.52	0.38	0.87	0.40	0.62	0.37	0.32	0.32	0.59

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	55	714	281	78	482	402	222	104	42	356	589
v/c Ratio	0.48	0.57	0.46	0.58	0.68	0.62	0.81	0.24	0.10	0.97	1.13
Control Delay	81.0	42.0	29.8	83.8	46.1	35.2	83.3	49.1	1.1	98.2	127.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	42.0	29.8	83.8	46.1	35.2	83.3	49.1	1.1	98.2	127.6
Queue Length 50th (ft)	53	294	150	75	398	257	213	84	0	351	~679
Queue Length 95th (ft)	100	378	251	129	556	395	293	140	4	#563	#1018
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	365	1243	606	365	704	650	365	428	425	367	521
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.57	0.46	0.21	0.68	0.62	0.61	0.24	0.10	0.97	1.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

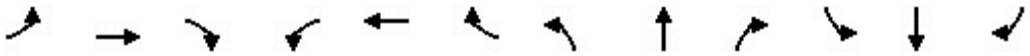
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Cumulative Year (2046) NP - PM Pk Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	136	195	18	112	61	180	672	79	73	517	13
v/c Ratio	0.10	0.57	0.52	0.17	0.42	0.19	0.61	0.28	0.07	0.53	0.16	0.01
Control Delay	62.3	64.3	11.9	64.5	56.0	1.8	50.5	25.3	14.1	73.7	12.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	64.3	11.9	64.5	56.0	1.8	50.5	25.3	14.1	73.7	12.5	0.0
Queue Length 50th (ft)	9	114	0	15	92	0	80	248	19	63	58	0
Queue Length 95th (ft)	28	177	69	42	150	3	119	366	75	113	113	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	201	609	649	209	609	592	360	2364	1096	194	3188	1034
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.22	0.30	0.09	0.18	0.10	0.50	0.28	0.07	0.38	0.16	0.01

Intersection Summary

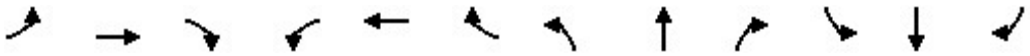
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	128	146	139	200	195	842	196	113	743	14
v/c Ratio	0.13	0.58	0.46	0.78	0.52	0.67	0.31	0.22	0.66	0.32	0.02
Control Delay	63.2	66.1	12.5	86.3	49.7	64.6	20.2	8.7	68.7	22.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	66.1	12.5	86.3	49.7	64.6	20.2	8.7	68.7	22.0	0.7
Queue Length 50th (ft)	12	109	0	119	138	163	151	31	97	157	0
Queue Length 95th (ft)	35	167	61	#206	229	242	221	91	104	230	2
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	184	612	619	203	592	292	2716	904	204	2347	777
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.21	0.24	0.68	0.34	0.67	0.31	0.22	0.55	0.32	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

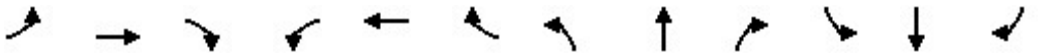
3: Willow Avenue & Shepherd Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	282	724	412	378	636	328	312	1544	523	348	1118	220
v/c Ratio	0.74	0.77	0.74	0.89	0.63	0.57	0.78	0.92	0.78	0.81	0.66	0.36
Control Delay	74.4	55.6	33.4	85.2	48.4	24.1	76.2	57.5	34.2	76.9	44.9	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.4	55.6	33.4	85.2	48.4	24.1	76.2	57.5	34.2	76.9	44.9	18.5
Queue Length 50th (ft)	135	335	197	183	276	123	149	525	267	165	334	63
Queue Length 95th (ft)	181	387	308	#265	334	220	200	#700	#492	#225	420	149
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	468	1090	621	439	1090	602	453	1673	672	459	1706	608
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.66	0.66	0.86	0.58	0.54	0.69	0.92	0.78	0.76	0.66	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



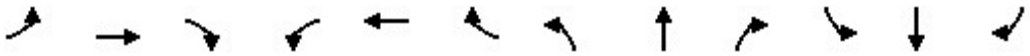
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	155	1031	234	98	935	227	337	732	135	171	542	116
v/c Ratio	0.72	0.88	0.40	0.56	1.63	0.41	1.17	1.31	0.25	0.76	1.10	0.24
Control Delay	72.8	52.0	22.8	68.4	323.6	24.5	154.4	191.1	14.6	75.2	116.5	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.8	52.0	22.8	68.4	323.6	24.5	154.4	191.1	14.6	75.2	116.5	12.4
Queue Length 50th (ft)	128	425	88	81	~1133	88	~337	~798	26	141	~518	15
Queue Length 95th (ft)	195	#594	172	137	#1456	174	#528	#1091	82	214	#742	64
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1165	583	291	573	551	288	557	538	288	491	486
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.88	0.40	0.34	1.63	0.41	1.17	1.31	0.25	0.59	1.10	0.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
9: Clovis Avenue & Shepherd Avenue



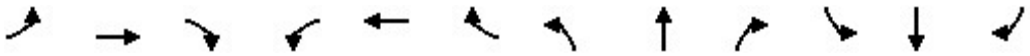
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	106	946	172	302	962	107	234	521	385	115	174	113
v/c Ratio	0.42	0.88	0.31	0.74	0.78	0.17	0.86	0.59	0.76	0.19	0.18	0.22
Control Delay	67.1	57.6	16.9	70.5	46.4	6.1	85.0	49.8	41.3	50.3	41.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	57.6	16.9	70.5	46.4	6.1	85.0	49.8	41.3	50.3	41.0	8.1
Queue Length 50th (ft)	48	432	43	139	410	0	208	222	211	46	65	0
Queue Length 95th (ft)	79	#601	111	184	502	42	#319	283	341	76	100	50
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	604	1072	548	610	1241	625	314	884	504	610	965	514
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.88	0.31	0.50	0.78	0.17	0.75	0.59	0.76	0.19	0.18	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	160	117	179	1114	577	75
v/c Ratio	0.62	0.35	0.55	0.42	0.32	0.09
Control Delay	44.4	9.3	38.5	5.3	13.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	9.3	38.5	5.3	13.6	5.7
Queue Length 50th (ft)	82	0	88	95	90	5
Queue Length 95th (ft)	134	42	152	163	143	29
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	554	327	2630	1826	844
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.21	0.55	0.42	0.32	0.09

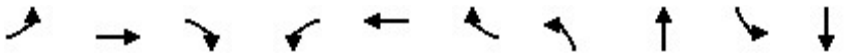
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	632	439	57	501	373	349	829	51	117	535	33
v/c Ratio	0.55	0.86	0.56	0.47	0.73	0.57	0.96	0.68	0.08	0.69	0.63	0.07
Control Delay	81.9	56.1	18.6	79.7	49.5	28.1	97.6	46.1	0.3	85.2	55.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.9	56.1	18.6	79.7	49.5	28.1	97.6	46.1	0.3	85.2	55.6	0.3
Queue Length 50th (ft)	71	576	145	55	422	187	340	364	0	113	251	0
Queue Length 95th (ft)	124	#850	271	102	589	310	#538	466	0	177	316	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	373	735	777	309	683	657	369	1227	601	312	849	470
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.86	0.56	0.18	0.73	0.57	0.95	0.68	0.08	0.38	0.63	0.07

Intersection Summary

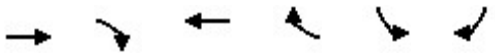
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	439	201	41	367	133	284	1275	136	926
v/c Ratio	0.12	0.87	0.39	0.29	0.62	0.23	0.86	0.88	0.68	0.77
Control Delay	55.6	61.4	15.1	59.7	41.4	6.6	74.1	44.1	70.2	44.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.6	61.4	15.1	59.7	41.4	6.6	74.1	44.1	70.2	44.4
Queue Length 50th (ft)	13	335	45	32	223	2	216	518	108	384
Queue Length 95th (ft)	37	440	105	70	354	49	#401	#771	175	#515
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	157	593	585	157	637	626	334	1453	231	1205
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.74	0.34	0.26	0.58	0.21	0.85	0.88	0.59	0.77

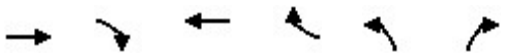
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1865	615	2546	551	78	410
v/c Ratio	0.42	0.47	0.61	0.43	0.11	0.70
Control Delay	9.5	2.0	11.9	1.0	41.8	51.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	2.0	11.9	1.0	41.8	51.6
Queue Length 50th (ft)	183	0	324	0	28	173
Queue Length 95th (ft)	246	41	429	0	47	221
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4492	1298	4179	1295	1310	1083
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.47	0.61	0.43	0.06	0.38

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1573	409	2348	221	812	964
v/c Ratio	0.54	0.26	0.54	0.22	0.49	1.02
Control Delay	18.2	0.4	18.0	2.1	36.4	74.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	0.4	18.0	2.1	36.4	74.8
Queue Length 50th (ft)	288	0	291	0	194	~472
Queue Length 95th (ft)	330	0	317	35	236	#619
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2923	1599	4336	1005	1643	948
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.26	0.54	0.22	0.49	1.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	639	1561	364	340	1482	210	634	943	339	376	479
v/c Ratio	1.14	1.06	0.59	0.78	1.15	0.45	0.95	0.58	0.78	0.29	0.45
Control Delay	140.1	92.5	23.4	78.2	126.3	31.1	86.6	41.8	78.0	47.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	140.1	92.5	23.4	78.2	126.3	31.1	86.6	41.8	78.0	47.0	5.0
Queue Length 50th (ft)	~388	~632	127	174	~642	102	329	267	174	113	0
Queue Length 95th (ft)	#513	#793	252	222	#739	187	#445	331	222	146	48
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	559	1474	613	559	1292	463	677	1624	671	1319	1069
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	1.06	0.59	0.61	1.15	0.45	0.94	0.58	0.51	0.29	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	633	169	76	704	297	336	389	114	163	294
v/c Ratio	0.49	0.49	0.27	0.58	0.98	0.45	0.94	0.66	0.20	0.76	0.67
Control Delay	81.3	39.5	19.8	83.4	73.7	28.4	94.0	51.8	10.4	85.1	60.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	39.5	19.8	83.4	73.7	28.4	94.0	51.8	10.4	85.1	60.3
Queue Length 50th (ft)	55	252	60	73	~696	161	325	330	10	157	262
Queue Length 95th (ft)	102	328	127	126	#1015	262	#510	480	60	229	371
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	369	1283	623	369	721	661	369	592	571	369	437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.49	0.27	0.21	0.98	0.45	0.91	0.66	0.20	0.44	0.67

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

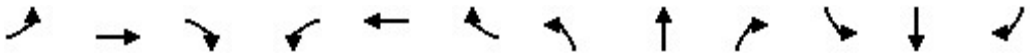
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Cumulative Year (2046) WP - AM Pk Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	25	101	255	46	486	84	495	491	30	71	668	98
v/c Ratio	0.23	0.19	0.40	0.40	0.85	0.15	0.71	0.30	0.04	0.53	0.43	0.18
Control Delay	65.9	35.0	5.4	70.2	57.4	2.8	42.8	32.1	7.1	73.7	39.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	35.0	5.4	70.2	57.4	2.8	42.8	32.1	7.1	73.7	39.1	5.5
Queue Length 50th (ft)	21	64	0	40	398	0	228	207	2	61	175	0
Queue Length 95th (ft)	52	102	57	81	488	20	m#407	m267	m13	111	216	34
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	203	631	706	209	632	610	694	1620	785	192	1536	555
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.16	0.36	0.22	0.77	0.14	0.71	0.30	0.04	0.37	0.43	0.18

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2: Willow Avenue & Behymer Avenue

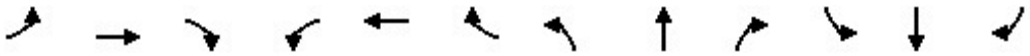
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	78	171	272	108	583	149	882	22	64	878	86
v/c Ratio	0.57	0.27	0.38	0.68	0.94	0.83	0.50	0.04	0.49	0.57	0.16
Control Delay	75.5	34.0	5.2	80.1	66.1	94.0	37.1	0.1	91.5	23.3	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	34.0	5.2	80.1	66.1	94.0	37.1	0.1	91.5	23.3	0.7
Queue Length 50th (ft)	67	108	0	93	480	129	228	0	59	104	0
Queue Length 95th (ft)	120	175	63	154	#757	#240	286	0	109	128	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	180	643	724	199	620	192	1762	627	194	1534	549
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.27	0.38	0.54	0.94	0.78	0.50	0.04	0.33	0.57	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

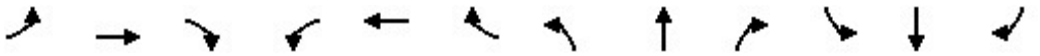
3: Willow Avenue & Shepherd Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	455	311	338	701	276	424	996	349	286	1450	229
v/c Ratio	0.53	0.65	0.63	0.84	0.78	0.56	0.77	0.49	0.46	0.74	0.81	0.36
Control Delay	73.4	57.7	19.3	81.4	56.6	27.2	67.8	35.2	13.1	73.6	47.8	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.4	57.7	19.3	81.4	56.6	27.2	67.8	35.2	13.1	73.6	47.8	19.4
Queue Length 50th (ft)	58	212	65	162	325	116	198	255	66	137	458	71
Queue Length 95th (ft)	92	251	158	#228	374	199	258	353	183	182	#638	163
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	459	1069	639	426	1060	561	553	2015	763	456	1795	630
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.43	0.49	0.79	0.66	0.49	0.77	0.49	0.46	0.63	0.81	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

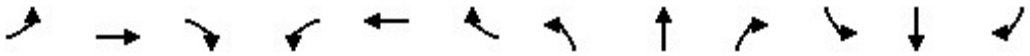


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	96	760	396	165	820	152	237	337	100	360	970	134
v/c Ratio	0.56	0.72	0.72	0.75	1.36	0.26	0.89	0.69	0.21	1.26	1.91	0.27
Control Delay	68.4	46.0	38.0	75.1	208.6	15.1	86.8	51.9	7.9	187.4	446.8	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	46.0	38.0	75.1	208.6	15.1	86.8	51.9	7.9	187.4	446.8	15.2
Queue Length 50th (ft)	80	302	219	136	~893	35	196	257	0	~380	~1272	27
Queue Length 95th (ft)	134	395	#383	207	#1199	94	#333	367	44	#576	#1527	81
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1062	553	283	602	574	285	487	487	285	507	497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.72	0.72	0.58	1.36	0.26	0.83	0.69	0.21	1.26	1.91	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	120	778	228	345	734	180	127	214	188	173	649	311
v/c Ratio	0.47	0.84	0.47	0.76	0.65	0.30	0.70	0.26	0.38	0.26	0.57	0.53
Control Delay	68.2	58.0	25.6	70.0	43.6	12.4	79.6	43.6	10.3	50.2	42.3	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	58.0	25.6	70.0	43.6	12.4	79.6	43.6	10.3	50.2	42.3	29.2
Queue Length 50th (ft)	55	343	87	158	289	33	114	83	13	71	263	151
Queue Length 95th (ft)	87	#467	177	205	366	93	177	121	78	108	352	268
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	592	925	487	622	1132	593	294	826	498	653	1144	586
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.84	0.47	0.55	0.65	0.30	0.43	0.26	0.38	0.26	0.57	0.53

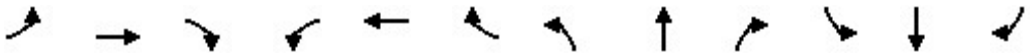
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	92	254	308	496	1065	327
v/c Ratio	0.46	0.63	0.59	0.18	0.71	0.44
Control Delay	42.3	12.2	31.7	3.0	23.3	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	12.2	31.7	3.0	23.3	12.6
Queue Length 50th (ft)	47	0	144	27	226	66
Queue Length 95th (ft)	90	65	227	50	329	148
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	651	521	2715	1506	744
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.39	0.59	0.18	0.71	0.44

Intersection Summary

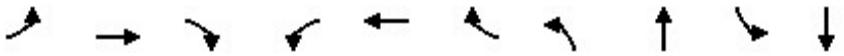
Queues
11: Clovis Avenue & Nees Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	77	435	389	75	512	253	175	508	23	125	926	148
v/c Ratio	0.57	0.64	0.50	0.56	0.75	0.40	0.77	0.43	0.04	0.71	0.85	0.27
Control Delay	82.7	45.6	9.8	82.4	50.8	23.0	84.9	40.6	0.1	86.0	57.3	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	45.6	9.8	82.4	50.8	23.0	84.9	40.6	0.1	86.0	57.3	15.3
Queue Length 50th (ft)	74	351	46	73	436	105	168	202	0	121	447	31
Queue Length 95th (ft)	128	498	146	126	610	194	243	273	0	187	#630	94
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	365	676	776	321	680	636	362	1185	564	306	1092	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.64	0.50	0.23	0.75	0.40	0.48	0.43	0.04	0.41	0.85	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



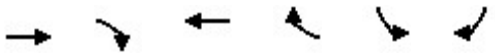
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	317	210	50	455	118	303	667	176	1333
v/c Ratio	0.12	0.70	0.43	0.35	0.82	0.21	0.84	0.47	0.81	1.14
Control Delay	55.8	50.6	14.6	61.3	53.8	5.2	68.8	29.7	81.0	113.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	50.6	14.6	61.3	53.8	5.2	68.8	29.7	81.0	113.7
Queue Length 50th (ft)	13	246	44	39	327	0	227	198	138	~692
Queue Length 95th (ft)	37	309	103	80	459	37	#444	300	#252	#893
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	151	572	578	155	596	594	361	1423	231	1166
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.55	0.36	0.32	0.76	0.20	0.84	0.47	0.76	1.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

AGENDA ITEM NO. 3.

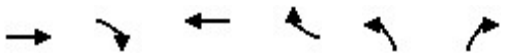


Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1315	956	2300	506	83	837
v/c Ratio	0.33	0.71	0.62	0.39	0.09	1.08
Control Delay	11.8	4.0	12.3	1.5	36.2	97.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	4.0	12.3	1.5	36.2	97.7
Queue Length 50th (ft)	143	0	402	9	27	~432
Queue Length 95th (ft)	164	48	441	44	48	#575
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4002	1347	3686	1283	925	778
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.71	0.62	0.39	0.09	1.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1174	254	2338	101	528	684
v/c Ratio	0.40	0.16	0.52	0.10	0.35	0.73
Control Delay	13.8	0.2	16.7	2.4	35.4	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	0.2	16.7	2.4	35.4	37.1
Queue Length 50th (ft)	164	0	278	0	121	238
Queue Length 95th (ft)	185	0	302	24	155	318
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2972	1583	4454	976	1520	940
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.16	0.52	0.10	0.35	0.73

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	441	1006	391	211	1196	200	409	658	222	515	809
v/c Ratio	0.87	0.63	0.52	0.65	0.89	0.41	0.81	0.38	0.65	0.33	0.67
Control Delay	82.4	47.4	8.1	77.3	64.4	26.5	76.9	35.5	76.3	43.6	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.4	47.4	8.1	77.3	64.4	26.5	76.9	35.5	76.3	43.6	17.7
Queue Length 50th (ft)	225	316	20	108	436	83	209	165	114	149	130
Queue Length 95th (ft)	288	382	114	150	#525	165	260	212	156	195	226
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	548	1602	746	553	1341	484	664	1728	671	1541	1216
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.63	0.52	0.38	0.89	0.41	0.62	0.38	0.33	0.33	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	55	732	294	78	489	402	226	104	42	356	589
v/c Ratio	0.48	0.58	0.48	0.58	0.68	0.61	0.82	0.24	0.10	0.99	1.16
Control Delay	81.0	41.8	30.4	83.8	45.8	34.9	83.5	49.1	1.1	104.2	139.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	41.8	30.4	83.8	45.8	34.9	83.5	49.1	1.1	104.2	139.4
Queue Length 50th (ft)	53	303	162	75	406	258	217	84	0	351	~683
Queue Length 95th (ft)	100	390	267	129	566	396	297	140	4	#563	#1019
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	365	1264	615	365	715	658	365	426	423	359	507
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.58	0.48	0.21	0.68	0.61	0.62	0.24	0.10	0.99	1.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

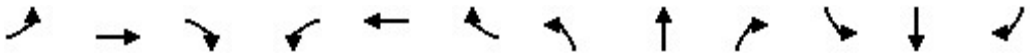
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Tract Map 6

1: Willow Avenue & International Avenue

Cumulative Year (2046) WP - PM Pk Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	136	213	18	112	61	191	680	79	73	533	13
v/c Ratio	0.10	0.57	0.55	0.17	0.42	0.19	0.63	0.29	0.07	0.53	0.17	0.01
Control Delay	62.3	64.3	12.0	64.5	56.0	1.8	49.7	24.3	13.2	73.7	12.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	64.3	12.0	64.5	56.0	1.8	49.7	24.3	13.2	73.7	12.8	0.0
Queue Length 50th (ft)	9	114	0	15	92	0	85	250	20	63	61	0
Queue Length 95th (ft)	28	177	71	42	150	3	124	367	76	113	117	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	50		20	240		155	250		205
Base Capacity (vph)	201	609	661	209	609	592	363	2364	1096	194	3173	1030
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.22	0.32	0.09	0.18	0.10	0.53	0.29	0.07	0.38	0.17	0.01

Intersection Summary

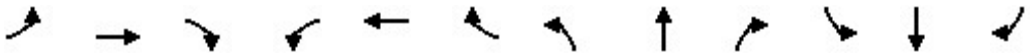
Queues

2: Willow Avenue & Behymer Avenue

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	132	146	139	211	195	853	196	128	762	14
v/c Ratio	0.13	0.58	0.45	0.78	0.54	0.67	0.32	0.22	0.69	0.33	0.02
Control Delay	63.2	65.6	12.2	86.3	49.3	64.6	21.3	9.3	68.0	22.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	65.6	12.2	86.3	49.3	64.6	21.3	9.3	68.0	22.5	0.6
Queue Length 50th (ft)	12	112	0	119	144	163	157	32	111	163	0
Queue Length 95th (ft)	35	170	60	#206	237	242	232	95	113	239	2
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	90		250		105	250		200
Base Capacity (vph)	184	612	619	203	591	292	2652	886	211	2330	772
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.22	0.24	0.68	0.36	0.67	0.32	0.22	0.61	0.33	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

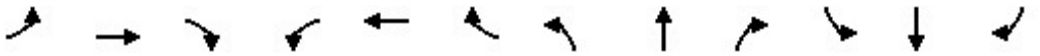


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	282	765	412	380	661	338	312	1544	527	366	1118	220
v/c Ratio	0.74	0.79	0.73	0.89	0.63	0.58	0.78	0.96	0.80	0.84	0.67	0.37
Control Delay	74.4	55.5	33.8	85.6	47.6	24.6	76.2	63.3	36.2	78.7	46.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.4	55.5	33.8	85.6	47.6	24.6	76.2	63.3	36.2	78.7	46.2	18.9
Queue Length 50th (ft)	135	351	202	184	282	130	149	~571	280	174	343	64
Queue Length 95th (ft)	181	412	319	#269	348	234	200	#700	#499	#250	420	149
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		100	250		100	250		160	250		150
Base Capacity (vph)	468	1090	614	439	1091	603	453	1612	657	459	1658	595
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.70	0.67	0.87	0.61	0.56	0.69	0.96	0.80	0.80	0.67	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

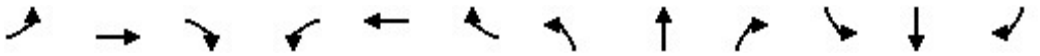


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	155	1099	234	116	975	227	337	732	166	171	542	116
v/c Ratio	0.72	0.96	0.41	0.62	1.70	0.41	1.17	1.31	0.31	0.76	1.10	0.24
Control Delay	72.8	63.0	23.6	70.0	353.6	24.5	154.4	191.1	18.2	75.2	116.5	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.8	63.0	23.6	70.0	353.6	24.5	154.4	191.1	18.2	75.2	116.5	12.4
Queue Length 50th (ft)	128	474	90	96	~1203	88	~337	~798	45	141	~518	15
Queue Length 95th (ft)	195	#678	175	155	#1528	174	#528	#1091	111	214	#742	64
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1140	573	291	573	551	288	557	540	288	491	486
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.96	0.41	0.40	1.70	0.41	1.17	1.31	0.31	0.59	1.10	0.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



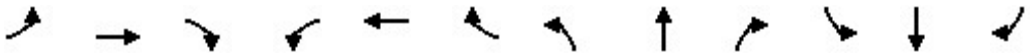
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	201	946	172	302	962	155	234	712	385	143	287	169
v/c Ratio	0.64	0.88	0.31	0.74	0.82	0.26	0.86	0.81	0.80	0.23	0.30	0.33
Control Delay	70.6	57.7	16.9	70.5	50.3	13.3	85.0	57.8	48.8	50.9	42.6	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	57.7	16.9	70.5	50.3	13.3	85.0	57.8	48.8	50.9	42.6	17.0
Queue Length 50th (ft)	92	432	43	139	422	30	208	323	243	58	111	39
Queue Length 95th (ft)	131	#601	111	184	#537	88	#319	400	#399	91	157	105
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		50
Base Capacity (vph)	604	1071	548	635	1177	599	314	884	479	610	965	515
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.88	0.31	0.48	0.82	0.26	0.75	0.81	0.80	0.23	0.30	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	175	117	179	1296	685	84
v/c Ratio	0.65	0.34	0.52	0.50	0.39	0.10
Control Delay	44.8	8.9	37.5	6.2	14.9	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	8.9	37.5	6.2	14.9	6.3
Queue Length 50th (ft)	89	0	87	125	114	8
Queue Length 95th (ft)	144	42	156	213	168	33
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		200			50
Base Capacity (vph)	527	554	345	2605	1762	816
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.21	0.52	0.50	0.39	0.10

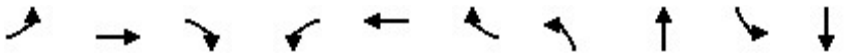
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	107	632	439	57	501	373	349	973	51	117	621	53
v/c Ratio	0.66	0.86	0.56	0.47	0.77	0.59	0.96	0.79	0.08	0.69	0.73	0.11
Control Delay	84.4	56.1	18.6	79.7	53.1	30.0	97.6	50.6	0.3	85.2	59.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.4	56.1	18.6	79.7	53.1	30.0	97.6	50.6	0.3	85.2	59.1	0.5
Queue Length 50th (ft)	103	576	145	55	434	193	340	452	0	113	299	0
Queue Length 95th (ft)	164	#850	271	102	#646	323	#538	#575	0	177	372	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			55		60	300		95	260		105
Base Capacity (vph)	373	735	777	309	654	635	369	1227	601	312	849	470
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.86	0.56	0.18	0.77	0.59	0.95	0.79	0.08	0.38	0.73	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

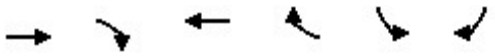


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	439	201	41	367	133	284	1415	136	1014
v/c Ratio	0.18	0.87	0.39	0.29	0.67	0.24	0.86	0.97	0.68	0.84
Control Delay	56.9	61.4	15.1	59.7	45.3	6.8	74.1	55.5	70.2	47.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	61.4	15.1	59.7	45.3	6.8	74.1	55.5	70.2	47.9
Queue Length 50th (ft)	19	335	45	32	267	3	216	~653	108	~458
Queue Length 95th (ft)	49	440	105	70	354	49	#401	#897	175	#596
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	230		235	
Base Capacity (vph)	157	593	585	157	609	604	334	1455	231	1205
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.74	0.34	0.26	0.60	0.22	0.85	0.97	0.59	0.84

Intersection Summary

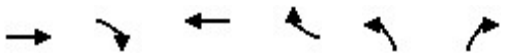
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1872	615	2590	561	78	410
v/c Ratio	0.42	0.47	0.62	0.43	0.11	0.70
Control Delay	9.5	2.0	12.1	1.1	41.8	51.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	2.0	12.1	1.1	41.8	51.6
Queue Length 50th (ft)	184	0	333	0	28	173
Queue Length 95th (ft)	247	41	441	0	47	221
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	280
Base Capacity (vph)	4492	1298	4173	1295	1310	1083
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.47	0.62	0.43	0.06	0.38

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1580	409	2404	221	812	1051
v/c Ratio	0.54	0.26	0.55	0.22	0.49	1.11
Control Delay	18.3	0.4	18.2	2.1	36.4	103.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	0.4	18.2	2.1	36.4	103.4
Queue Length 50th (ft)	290	0	301	0	194	~560
Queue Length 95th (ft)	332	0	327	35	236	#710
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2923	1599	4336	1005	1643	947
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.26	0.55	0.22	0.49	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	732	1561	364	340	1482	221	634	973	345	394	535
v/c Ratio	1.31	1.06	0.59	0.78	1.15	0.48	0.95	0.60	0.78	0.30	0.49
Control Delay	200.5	92.5	23.4	78.2	126.3	32.6	86.6	42.8	78.0	47.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	200.5	92.5	23.4	78.2	126.3	32.6	86.6	42.8	78.0	47.3	5.9
Queue Length 50th (ft)	~489	~632	127	174	~642	113	329	280	177	119	7
Queue Length 95th (ft)	#618	#793	252	222	#739	200	#445	347	225	153	57
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	240		240	245		150	200		230		185
Base Capacity (vph)	559	1474	613	559	1292	463	677	1617	671	1319	1098
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	1.06	0.59	0.61	1.15	0.48	0.94	0.60	0.51	0.30	0.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	645	178	76	726	297	351	389	114	163	294
v/c Ratio	0.49	0.50	0.29	0.58	1.01	0.45	0.97	0.66	0.20	0.76	0.68
Control Delay	81.3	39.7	20.8	83.4	80.8	28.4	98.1	51.8	10.4	85.1	61.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	39.7	20.8	83.4	80.8	28.4	98.1	51.8	10.4	85.1	61.1
Queue Length 50th (ft)	55	258	67	73	~763	161	343	330	10	157	262
Queue Length 95th (ft)	102	335	136	126	#1062	262	#542	480	60	229	371
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		50	260		55	150			200	
Base Capacity (vph)	369	1283	623	369	721	661	369	592	571	369	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.50	0.29	0.21	1.01	0.45	0.95	0.66	0.20	0.44	0.68

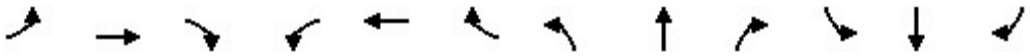
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Willow Avenue & International Avenue

Tract Map
Existing (2022) WP MIT - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	92	261	18	351	70	479	401	18	82	571	113
v/c Ratio	0.28	0.19	0.43	0.17	0.80	0.14	0.83	0.22	0.02	0.60	0.27	0.15
Control Delay	67.8	38.4	6.4	64.4	62.0	0.6	58.3	31.0	4.3	77.7	29.9	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	38.4	6.4	64.4	62.0	0.6	58.3	31.0	4.3	77.7	29.9	2.6
Queue Length 50th (ft)	25	57	0	15	291	0	214	155	0	71	129	0
Queue Length 95th (ft)	49	86	26	35	302	0	229	177	m7	105	154	3
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	100		20	300		155	250		205
Base Capacity (vph)	105	579	673	104	554	575	685	1807	856	167	2079	735
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.16	0.39	0.17	0.63	0.12	0.70	0.22	0.02	0.49	0.27	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Willow Avenue & Behymer Avenue

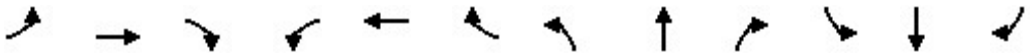
Tract Map
Existing (2022) WP MIT - AM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	159	257	20	236	106	718	20	61	735	94
v/c Ratio	0.66	0.35	0.44	0.19	0.71	0.65	0.27	0.02	0.48	0.30	0.12
Control Delay	84.3	44.6	7.1	64.9	59.7	76.4	20.5	0.1	82.5	13.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.3	44.6	7.1	64.9	59.7	76.4	20.5	0.1	82.5	13.9	0.5
Queue Length 50th (ft)	73	121	0	17	183	91	131	0	56	67	1
Queue Length 95th (ft)	114	153	35	40	218	129	164	0	90	87	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	210		250		105	250		200
Base Capacity (vph)	141	600	684	199	618	199	2638	879	194	2455	806
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.27	0.38	0.10	0.38	0.53	0.27	0.02	0.31	0.30	0.12

Intersection Summary

Queues
3: Willow Avenue & Shepherd Avenue

Tract Map
Existing (2022) WP MIT - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	290	165	53	377	128	182	667	57	189	841	57
v/c Ratio	0.17	0.57	0.45	0.28	0.63	0.35	0.64	0.24	0.06	0.65	0.29	0.06
Control Delay	67.7	61.9	11.2	69.5	60.9	12.9	74.7	17.7	0.1	74.3	18.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	61.9	11.2	69.5	60.9	12.9	74.7	17.7	0.1	74.3	18.2	0.1
Queue Length 50th (ft)	15	136	0	25	181	7	87	117	0	90	152	0
Queue Length 95th (ft)	33	174	60	47	221	61	123	161	0	126	205	0
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		175	280		100	260		225	280		165
Base Capacity (vph)	459	1069	593	426	1058	550	438	2835	924	447	2898	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.27	0.28	0.12	0.36	0.23	0.42	0.24	0.06	0.42	0.29	0.06

Intersection Summary

Queues
6: Minnewawa Avenue & Shepherd Avenue

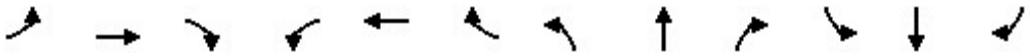
Tract Map
Existing (2022) WP MIT - AM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	426	181	82	412	108	151	179	58	123	189	35
v/c Ratio	0.26	0.48	0.39	0.51	0.79	0.21	0.71	0.24	0.09	0.65	0.27	0.05
Control Delay	60.4	42.1	20.0	67.1	54.6	9.5	72.6	31.1	2.2	71.1	32.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	42.1	20.0	67.1	54.6	9.5	72.6	31.1	2.2	71.1	32.8	0.1
Queue Length 50th (ft)	31	154	57	68	322	10	125	103	0	102	113	0
Queue Length 95th (ft)	64	181	104	110	375	43	176	175	7	150	188	0
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1008	517	283	535	520	285	735	680	285	712	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.42	0.35	0.29	0.77	0.21	0.53	0.24	0.09	0.43	0.27	0.05

Intersection Summary

Queues
9: Clovis Avenue & Shepherd Avenue

Tract Map
Existing (2022) WP MIT - AM Pk Hr

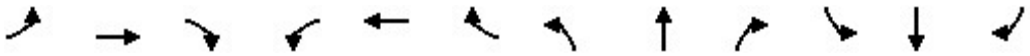


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	406	142	131	354	75	96	137	104	71	278	177
v/c Ratio	0.30	0.69	0.41	0.50	0.51	0.19	0.62	0.17	0.23	0.06	0.16	0.21
Control Delay	65.1	61.0	18.0	68.6	53.4	3.7	77.8	42.3	7.5	32.6	20.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	61.0	18.0	68.6	53.4	3.7	77.8	42.3	7.5	32.6	20.8	3.8
Queue Length 50th (ft)	32	184	27	60	157	0	86	52	0	22	70	0
Queue Length 95th (ft)	54	211	72	86	180	10	131	75	33	40	107	34
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		270
Base Capacity (vph)	592	851	456	598	859	466	294	826	453	1158	1718	857
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.48	0.31	0.22	0.41	0.16	0.33	0.17	0.23	0.06	0.16	0.21

Intersection Summary

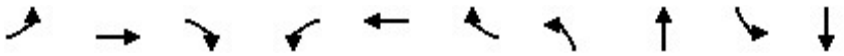
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	101	292	346	342	553	257
v/c Ratio	0.48	0.66	0.71	0.13	0.35	0.32
Control Delay	42.5	12.0	36.3	3.0	17.6	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	12.0	36.3	3.0	17.6	7.8
Queue Length 50th (ft)	52	0	166	18	97	27
Queue Length 95th (ft)	79	33	195	30	133	59
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		225			50
Base Capacity (vph)	527	677	486	2700	1560	792
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.43	0.71	0.13	0.35	0.32

Intersection Summary



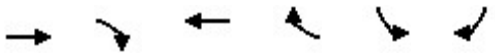
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	352	223	40	417	207	80	385	23	80	616	80
v/c Ratio	0.40	0.63	0.35	0.36	0.75	0.37	0.58	0.24	0.03	0.58	0.38	0.10
Control Delay	77.6	50.7	5.8	76.3	56.5	16.3	83.3	27.6	0.1	83.1	29.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	50.7	5.8	76.3	56.5	16.3	83.3	27.6	0.1	83.1	29.9	0.5
Queue Length 50th (ft)	44	302	0	38	373	54	77	121	0	77	209	0
Queue Length 95th (ft)	85	373	51	76	455	112	127	179	0	127	292	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			60		60	475		95	260		105
Base Capacity (vph)	389	557	630	309	559	562	362	1588	746	306	1602	768
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.63	0.35	0.13	0.75	0.37	0.22	0.24	0.03	0.26	0.38	0.10

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	302	172	49	457	100	143	430	142	820
v/c Ratio	0.12	0.67	0.36	0.34	0.84	0.19	0.72	0.29	0.71	0.54
Control Delay	55.7	49.7	12.3	61.0	55.1	7.8	74.1	25.8	72.7	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	49.7	12.3	61.0	55.1	7.8	74.1	25.8	72.7	31.0
Queue Length 50th (ft)	13	234	29	38	333	4	113	108	112	247
Queue Length 95th (ft)	37	289	78	79	455	42	182	182	180	378
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		110	165		105	420		215	
Base Capacity (vph)	151	572	567	155	593	567	224	1461	228	1508
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.53	0.30	0.32	0.77	0.18	0.64	0.29	0.62	0.54

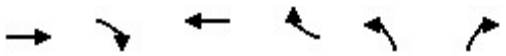
Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1020	522	1843	401	70	776
v/c Ratio	0.25	0.44	0.50	0.31	0.08	0.97
Control Delay	11.1	2.1	10.8	0.9	36.0	68.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	2.1	10.8	0.9	36.0	68.4
Queue Length 50th (ft)	104	0	285	2	22	342
Queue Length 95th (ft)	123	41	318	25	42	#488
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	565
Base Capacity (vph)	4002	1184	3704	1283	925	800
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.44	0.50	0.31	0.08	0.97

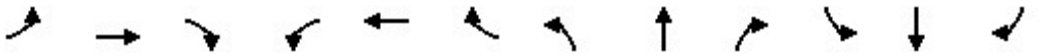
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	902	237	1840	88	504	560
v/c Ratio	0.30	0.15	0.41	0.09	0.33	0.55
Control Delay	12.8	0.2	15.1	2.5	35.2	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	0.2	15.1	2.5	35.2	21.9
Queue Length 50th (ft)	124	0	199	0	115	120
Queue Length 95th (ft)	146	0	221	22	148	184
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2972	1583	4454	971	1520	1023
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.15	0.41	0.09	0.33	0.55

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	291	895	230	159	1098	172	249	283	129	183	331	518
v/c Ratio	0.75	0.54	0.35	0.54	0.72	0.32	0.70	0.23	0.20	0.57	0.19	0.40
Control Delay	78.9	44.4	5.8	74.8	52.3	21.5	77.4	35.9	6.0	74.4	36.6	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.9	44.4	5.8	74.8	52.3	21.5	77.4	35.9	6.0	74.4	36.6	3.8
Queue Length 50th (ft)	149	271	0	80	365	59	128	105	0	93	85	0
Queue Length 95th (ft)	195	325	63	119	440	133	172	146	48	134	118	44
Internal Link Dist (ft)		551			830			361			659	
Turn Bay Length (ft)	350		240	245		150	200			230		185
Base Capacity (vph)	548	1643	666	553	1521	532	664	1252	632	671	1759	1291
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.54	0.35	0.29	0.72	0.32	0.38	0.23	0.20	0.27	0.19	0.40

Intersection Summary

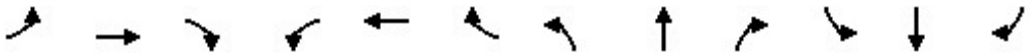
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	311	66	38	297	385	151	96	35	193	149
v/c Ratio	0.13	0.36	0.13	0.24	0.59	0.55	0.71	0.15	0.05	0.69	0.22
Control Delay	40.0	28.6	0.5	42.3	32.9	5.7	58.1	28.3	0.1	48.3	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	28.6	0.5	42.3	32.9	5.7	58.1	28.3	0.1	48.3	22.6
Queue Length 50th (ft)	11	85	0	21	138	0	81	36	0	105	54
Queue Length 95th (ft)	34	100	0	51	208	60	#194	98	0	164	117
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		160	260		205	285			200	
Base Capacity (vph)	157	1179	635	157	621	784	213	639	662	443	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.26	0.10	0.24	0.48	0.49	0.71	0.15	0.05	0.44	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Willow Avenue & International Avenue

Tract Map
Existing (2022) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	41	122	6	69	32	134	416	13	21	296	12
v/c Ratio	0.10	0.25	0.49	0.06	0.42	0.13	0.53	0.15	0.01	0.20	0.08	0.01
Control Delay	62.3	59.7	15.9	61.4	65.4	1.2	56.8	13.9	2.8	65.0	8.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	59.7	15.9	61.4	65.4	1.2	56.8	13.9	2.8	65.0	8.1	0.0
Queue Length 50th (ft)	9	34	0	5	58	0	60	65	0	18	26	0
Queue Length 95th (ft)	28	71	59	20	106	0	93	210	5	47	57	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	100		20	300		155	250		205
Base Capacity (vph)	201	609	600	209	609	592	355	2702	1237	194	3538	1136
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.20	0.03	0.11	0.05	0.38	0.15	0.01	0.11	0.08	0.01

Intersection Summary

Queues
2: Willow Avenue & Behymer Avenue

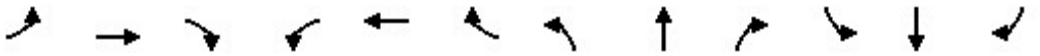
Tract Map
Existing (2022) WP MIT - PM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	13	55	92	35	133	136	524	27	58	422	11
v/c Ratio	0.12	0.26	0.32	0.32	0.54	0.69	0.16	0.02	0.46	0.14	0.01
Control Delay	63.0	55.9	7.5	68.0	57.6	75.7	11.8	0.0	66.4	13.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	55.9	7.5	68.0	57.6	75.7	11.8	0.0	66.4	13.3	0.6
Queue Length 50th (ft)	11	47	0	30	97	117	63	0	46	61	0
Queue Length 95th (ft)	34	82	28	65	160	177	110	0	68	115	0
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	210		250		105	250		200
Base Capacity (vph)	184	612	598	203	592	217	3353	1087	194	3022	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.09	0.15	0.17	0.22	0.63	0.16	0.02	0.30	0.14	0.01

Intersection Summary

Queues
3: Willow Avenue & Shepherd Avenue

Tract Map
Existing (2022) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	384	120	38	360	165	259	699	98	153	494	33
v/c Ratio	0.20	0.67	0.34	0.20	0.61	0.42	0.71	0.24	0.10	0.59	0.18	0.04
Control Delay	68.0	63.2	10.7	68.0	60.1	12.0	73.9	17.9	1.8	74.0	19.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	63.2	10.7	68.0	60.1	12.0	73.9	17.9	1.8	74.0	19.6	0.1
Queue Length 50th (ft)	18	182	0	18	167	8	124	124	0	73	90	0
Queue Length 95th (ft)	38	229	55	38	212	71	167	173	19	109	131	0
Internal Link Dist (ft)		615			5383			562			5238	
Turn Bay Length (ft)	230		175	280		100	260		225	280		165
Base Capacity (vph)	468	1090	571	439	1090	589	453	2901	945	447	2725	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.35	0.21	0.09	0.33	0.28	0.57	0.24	0.10	0.34	0.18	0.04

Intersection Summary

Queues
6: Minnewawa Avenue & Shepherd Avenue

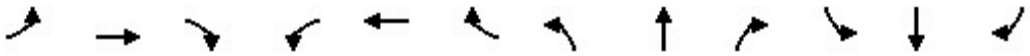
Tract Map
Existing (2022) WP MIT - PM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	22	487	87	39	408	91	112	163	58	82	153	14
v/c Ratio	0.15	0.54	0.19	0.26	0.79	0.18	0.61	0.20	0.08	0.50	0.19	0.02
Control Delay	57.7	43.8	6.5	60.3	54.6	6.8	69.9	26.7	2.0	66.7	27.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	43.8	6.5	60.3	54.6	6.8	69.9	26.7	2.0	66.7	27.9	0.1
Queue Length 50th (ft)	17	185	0	31	325	0	93	87	0	67	83	0
Queue Length 95th (ft)	46	216	34	69	406	38	152	164	12	119	160	0
Internal Link Dist (ft)		5383			1263			627			5240	
Turn Bay Length (ft)	230		50	215		60	230		104	255		25
Base Capacity (vph)	288	1007	517	291	542	527	288	831	758	288	811	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.48	0.17	0.13	0.75	0.17	0.39	0.20	0.08	0.28	0.19	0.02

Intersection Summary

Queues
9: Clovis Avenue & Shepherd Avenue

Tract Map
Existing (2022) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	128	361	108	81	320	55	147	237	74	39	139	84
v/c Ratio	0.49	0.67	0.30	0.32	0.61	0.15	0.60	0.27	0.14	0.03	0.08	0.10
Control Delay	68.4	62.3	4.1	65.6	60.9	0.9	67.9	43.7	0.6	30.0	21.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	62.3	4.1	65.6	60.9	0.9	67.9	43.7	0.6	30.0	21.1	2.1
Queue Length 50th (ft)	58	165	0	36	144	0	128	92	0	11	35	0
Queue Length 95th (ft)	92	211	18	64	192	0	199	132	0	26	62	18
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		270
Base Capacity (vph)	604	867	497	610	876	507	243	884	511	1294	1732	832
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.42	0.22	0.13	0.37	0.11	0.60	0.27	0.14	0.03	0.08	0.10

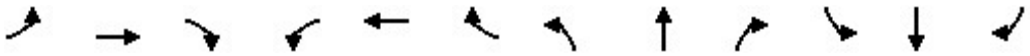
Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	100	107	193	564	398	84
v/c Ratio	0.49	0.38	0.61	0.21	0.20	0.09
Control Delay	42.9	11.3	40.6	3.2	11.3	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	11.3	40.6	3.2	11.3	3.3
Queue Length 50th (ft)	51	0	96	33	53	0
Queue Length 95th (ft)	85	34	138	51	83	18
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		225			50
Base Capacity (vph)	527	547	315	2732	1952	912
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.20	0.61	0.21	0.20	0.09

Intersection Summary

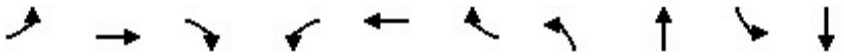
Queues
11: Clovis Avenue & Nees Avenue

Tract Map
Existing (2022) WP MIT - PM Pk Hr



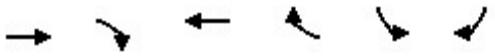
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	56	441	265	23	410	79	132	570	49	46	355	49
v/c Ratio	0.46	0.78	0.42	0.21	0.79	0.16	0.72	0.32	0.06	0.40	0.22	0.06
Control Delay	79.3	57.7	10.7	72.3	62.0	3.5	85.7	25.3	2.2	77.3	28.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.3	57.7	10.7	72.3	62.0	3.5	85.7	25.3	2.2	77.3	28.7	0.2
Queue Length 50th (ft)	54	403	37	22	367	0	127	182	0	44	115	0
Queue Length 95th (ft)	100	499	106	54	479	22	195	261	12	88	179	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			60		60	475		95	260		105
Base Capacity (vph)	373	584	644	321	521	512	369	1800	819	312	1617	759
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.76	0.41	0.07	0.79	0.15	0.36	0.32	0.06	0.15	0.22	0.06

Intersection Summary



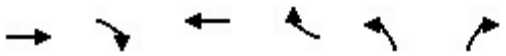
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	372	190	39	328	84	159	820	84	595
v/c Ratio	0.17	0.83	0.41	0.27	0.73	0.19	0.72	0.46	0.47	0.37
Control Delay	56.7	60.5	17.4	59.4	53.0	6.2	71.0	25.3	61.8	26.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	60.5	17.4	59.4	53.0	6.2	71.0	25.3	61.8	26.8
Queue Length 50th (ft)	18	287	48	30	247	0	125	250	66	177
Queue Length 95th (ft)	47	368	106	68	319	32	196	367	118	268
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		110	165		105	420		215	
Base Capacity (vph)	157	591	575	157	591	566	252	1769	231	1610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.63	0.33	0.25	0.55	0.15	0.63	0.46	0.36	0.37

Intersection Summary



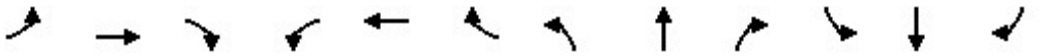
Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1677	534	1696	370	67	345
v/c Ratio	0.36	0.41	0.39	0.29	0.11	0.67
Control Delay	7.5	1.6	7.6	0.6	44.7	51.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	1.6	7.6	0.6	44.7	51.2
Queue Length 50th (ft)	138	0	148	0	25	141
Queue Length 95th (ft)	194	36	210	0	43	186
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	565
Base Capacity (vph)	4670	1302	4323	1295	1310	1088
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.41	0.39	0.29	0.05	0.32

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1408	371	1596	190	512	785
v/c Ratio	0.49	0.23	0.38	0.20	0.30	0.78
Control Delay	18.2	0.3	16.4	2.2	32.6	42.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	0.3	16.4	2.2	32.6	42.1
Queue Length 50th (ft)	246	0	173	0	114	317
Queue Length 95th (ft)	284	0	194	32	146	407
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2923	1599	4336	992	1714	1002
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.23	0.37	0.19	0.30	0.78

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	475	1425	315	329	1106	148	365	448	288	289	291	333
v/c Ratio	0.89	0.96	0.52	0.77	0.83	0.31	0.79	0.37	0.40	0.74	0.18	0.30
Control Delay	84.4	68.5	19.1	78.4	60.7	21.2	77.6	40.9	5.7	77.8	39.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.4	68.5	19.1	78.4	60.7	21.2	77.6	40.9	5.7	77.8	39.7	4.6
Queue Length 50th (ft)	244	521	88	169	394	47	187	181	0	148	78	0
Queue Length 95th (ft)	#328	#682	196	217	453	112	236	243	71	195	110	42
Internal Link Dist (ft)		551			830			361			659	
Turn Bay Length (ft)	350		240	245		150	200			230		185
Base Capacity (vph)	559	1490	610	559	1334	475	677	1204	720	671	1617	1102
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.96	0.52	0.59	0.83	0.31	0.54	0.37	0.40	0.43	0.18	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
19: Fowler Avenue & Shepherd Avenue

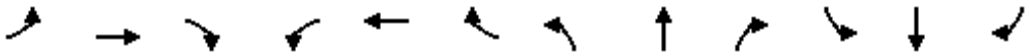
Tract Map
Existing (2022) WP MIT - PM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	303	87	49	275	135	129	125	77	116	133
v/c Ratio	0.17	0.44	0.20	0.33	0.60	0.26	0.60	0.15	0.10	0.57	0.17
Control Delay	46.0	36.6	1.0	49.7	38.7	4.3	53.0	21.8	1.9	52.3	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	36.6	1.0	49.7	38.7	4.3	53.0	21.8	1.9	52.3	21.7
Queue Length 50th (ft)	15	94	0	30	147	0	80	46	0	71	47
Queue Length 95th (ft)	40	117	0	67	226	31	133	110	13	123	115
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		160	260		205	285			200	
Base Capacity (vph)	142	1286	678	160	695	692	339	820	765	212	797
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.24	0.13	0.31	0.40	0.20	0.38	0.15	0.10	0.55	0.17

Intersection Summary

Queues
1: Willow Avenue & International Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	93	295	25	355	70	572	568	22	82	771	113
v/c Ratio	0.28	0.21	0.49	0.24	0.80	0.14	0.87	0.32	0.03	0.60	0.39	0.16
Control Delay	67.8	40.3	6.7	66.6	62.2	0.6	54.2	31.5	5.6	77.7	33.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	40.3	6.7	66.6	62.2	0.6	54.2	31.5	5.6	77.7	33.7	2.7
Queue Length 50th (ft)	25	65	0	21	295	0	255	239	0	71	192	0
Queue Length 95th (ft)	49	88	25	44	306	0	271	260	m10	105	213	3
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	100		20	300		155	250		205
Base Capacity (vph)	105	565	687	104	552	573	738	1802	855	167	1954	700
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.16	0.43	0.24	0.64	0.12	0.78	0.32	0.03	0.49	0.39	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Willow Avenue & Behymer Avenue

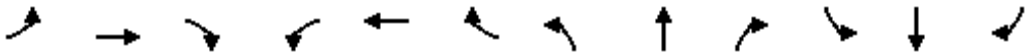
Tract Map
Near Term (2026) WP MIT - AM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	168	301	27	248	165	981	24	62	975	95
v/c Ratio	0.61	0.35	0.48	0.25	0.73	0.70	0.38	0.03	0.48	0.45	0.13
Control Delay	77.3	43.0	6.6	66.5	60.0	71.4	23.4	0.1	84.1	15.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	43.0	6.6	66.5	60.0	71.4	23.4	0.1	84.1	15.4	0.5
Queue Length 50th (ft)	75	127	0	23	194	140	195	0	56	87	1
Queue Length 95th (ft)	113	155	34	48	229	181	241	0	94	107	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	210		250		105	250		200
Base Capacity (vph)	180	600	714	199	578	242	2563	857	194	2173	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.28	0.42	0.14	0.43	0.68	0.38	0.03	0.32	0.45	0.13

Intersection Summary

Queues
3: Willow Avenue & Shepherd Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	461	170	338	702	277	210	991	242	285	1443	228
v/c Ratio	0.53	0.66	0.38	0.84	0.78	0.48	0.68	0.49	0.32	0.74	0.67	0.31
Control Delay	73.4	57.8	8.3	81.4	56.4	10.3	74.5	35.2	6.6	73.8	37.4	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.4	57.8	8.3	81.4	56.4	10.3	74.5	35.2	6.6	73.8	37.4	15.7
Queue Length 50th (ft)	58	215	0	162	325	27	100	254	9	136	398	61
Queue Length 95th (ft)	89	245	54	#214	361	92	138	342	72	176	519	143
Internal Link Dist (ft)		615			4134			562			5238	
Turn Bay Length (ft)	230		175	280		200	260		225	280		165
Base Capacity (vph)	459	1069	596	426	1064	636	438	2015	755	456	2158	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.43	0.29	0.79	0.66	0.44	0.48	0.49	0.32	0.63	0.67	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	211	590	54	321	152	305
v/c Ratio	0.33	0.87	0.11	0.35	0.31	0.33
Control Delay	12.6	27.6	5.3	7.0	12.3	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	27.6	5.3	7.0	12.3	11.1
Queue Length 50th (ft)	42	130	9	50	33	66
Queue Length 95th (ft)	74	211	m14	m61	64	106
Internal Link Dist (ft)	5395	1252		4546		2558
Turn Bay Length (ft)			150		250	
Base Capacity (vph)	717	752	500	915	495	936
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.78	0.11	0.35	0.31	0.33

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
6: Minnewawa Avenue & Shepherd Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	100	795	287	176	1020	227	306	106	244	546	139
v/c Ratio	0.75	0.82	0.55	0.85	0.93	0.87	0.30	0.19	0.88	0.52	0.25
Control Delay	86.7	49.1	23.6	85.2	55.0	80.6	34.9	3.4	85.4	37.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.7	49.1	23.6	85.2	55.0	80.6	34.9	3.4	85.4	37.2	7.2
Queue Length 50th (ft)	77	306	98	135	395	172	98	0	191	195	1
Queue Length 95th (ft)	#150	350	167	#225	#443	#266	130	18	m#287	235	m33
Internal Link Dist (ft)		1169			1263		627			614	
Turn Bay Length (ft)	250		50	215		230		104	255		25
Base Capacity (vph)	136	971	526	219	1098	280	1018	546	295	1047	563
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.82	0.55	0.80	0.93	0.81	0.30	0.19	0.83	0.52	0.25

Intersection Summary

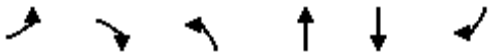
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queues
9: Clovis Avenue & Shepherd Avenue

Tract Map
Near Term (2026) WP MIT - AM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	824	161	258	782	136	134	233	159	183	458	242
v/c Ratio	0.50	0.82	0.31	0.71	0.70	0.24	0.72	0.28	0.34	0.28	0.40	0.36
Control Delay	68.7	53.8	15.3	71.1	45.3	10.2	80.0	44.0	12.5	50.3	39.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	53.8	15.3	71.1	45.3	10.2	80.0	44.0	12.5	50.3	39.2	6.2
Queue Length 50th (ft)	59	356	34	119	314	17	120	91	19	76	175	0
Queue Length 95th (ft)	86	407	82	147	356	55	169	119	64	104	221	47
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		270
Base Capacity (vph)	592	1011	522	598	1125	576	294	826	469	655	1135	669
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.82	0.31	0.43	0.70	0.24	0.46	0.28	0.34	0.28	0.40	0.36

Intersection Summary

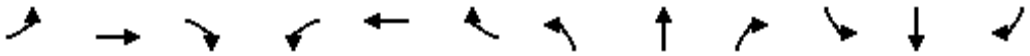


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	107	293	349	514	942	266
v/c Ratio	0.50	0.66	0.67	0.19	0.63	0.37
Control Delay	43.1	11.9	33.6	3.2	22.5	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	11.9	33.6	3.2	22.5	12.4
Queue Length 50th (ft)	55	0	165	30	197	52
Queue Length 95th (ft)	83	33	196	44	239	94
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		225			50
Base Capacity (vph)	527	678	518	2694	1490	727
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.43	0.67	0.19	0.63	0.37

Intersection Summary

Queues
11: Clovis Avenue & Nees Avenue

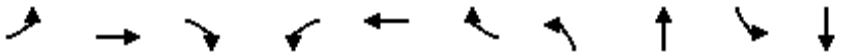
Tract Map
Near Term (2026) WP MIT - AM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	47	405	392	40	459	207	176	531	23	80	946	83
v/c Ratio	0.30	0.76	0.56	0.25	0.86	0.39	0.85	0.36	0.03	0.48	0.72	0.13
Control Delay	47.9	42.7	8.4	46.7	50.1	15.0	79.1	23.7	0.1	53.1	32.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	42.7	8.4	46.7	50.1	15.0	79.1	23.7	0.1	53.1	32.7	2.8
Queue Length 50th (ft)	29	228	23	24	267	45	113	140	0	49	298	0
Queue Length 95th (ft)	63	321	89	55	#377	99	#228	184	0	93	#364	18
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			60		60	475		95	260		105
Base Capacity (vph)	159	571	722	160	577	562	206	1482	710	177	1319	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.71	0.54	0.25	0.80	0.37	0.85	0.36	0.03	0.45	0.72	0.13

Intersection Summary

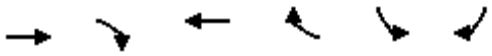
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	320	173	49	470	117	143	632	173	1266
v/c Ratio	0.12	0.70	0.36	0.34	0.84	0.21	0.67	0.44	0.80	0.86
Control Delay	55.7	50.4	12.5	61.0	55.4	5.0	68.0	29.6	80.1	42.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	50.4	12.5	61.0	55.4	5.0	68.0	29.6	80.1	42.6
Queue Length 50th (ft)	13	248	30	38	340	0	113	187	136	466
Queue Length 95th (ft)	37	307	80	79	470	35	174	280	#240	#807
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	450		255	
Base Capacity (vph)	151	572	567	155	596	594	294	1424	231	1464
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.56	0.31	0.32	0.79	0.20	0.49	0.44	0.75	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1116	544	2090	455	78	776
v/c Ratio	0.32	0.49	0.64	0.35	0.07	0.79
Control Delay	16.9	3.0	11.0	1.5	27.2	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	3.0	11.0	1.5	27.2	42.9
Queue Length 50th (ft)	145	0	155	4	22	318
Queue Length 95th (ft)	190	57	183	41	37	372
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	565
Base Capacity (vph)	3524	1115	3244	1283	1378	1138
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.49	0.64	0.35	0.06	0.68

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	999	248	2138	92	514	664
v/c Ratio	0.41	0.16	0.59	0.11	0.25	0.55
Control Delay	10.3	0.2	18.1	2.0	25.1	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	0.2	18.1	2.0	25.1	25.1
Queue Length 50th (ft)	51	0	194	2	98	194
Queue Length 95th (ft)	58	0	245	m5	126	260
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2432	1583	3645	813	2040	1208
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.16	0.59	0.11	0.25	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	383	954	268	163	1143	190	269	461	212	441	745
v/c Ratio	0.76	0.51	0.33	0.61	0.74	0.31	0.73	0.31	0.72	0.31	0.60
Control Delay	55.7	23.4	7.1	67.8	44.4	4.8	68.2	29.8	72.7	38.7	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	23.4	7.1	67.8	44.4	4.8	68.2	29.8	72.7	38.7	17.3
Queue Length 50th (ft)	167	161	41	69	317	0	114	91	91	109	159
Queue Length 95th (ft)	222	190	77	107	373	45	160	123	#141	145	205
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	350		240	245		150	200		230		185
Base Capacity (vph)	523	1871	843	290	1537	615	422	1500	293	1417	1262
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.51	0.32	0.56	0.74	0.31	0.64	0.31	0.72	0.31	0.59

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	64	756	199	68	736	11	112	65	24	28	101
v/c Ratio	0.42	0.95	0.26	0.62	0.51	0.02	0.81	0.12	0.23	0.07	0.23
Control Delay	47.1	48.3	3.3	56.9	29.4	0.0	81.1	11.7	45.6	28.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	48.3	3.3	56.9	29.4	0.0	81.1	11.7	45.6	28.8	4.7
Queue Length 50th (ft)	35	396	0	41	228	0	64	6	13	13	0
Queue Length 95th (ft)	74	#637	37	m55	288	m0	#157	39	39	35	27
Internal Link Dist (ft)		426			2153			1247		580	
Turn Bay Length (ft)	250			250		250	250		250		300
Base Capacity (vph)	173	809	784	109	1448	707	139	544	105	416	445
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.93	0.25	0.62	0.51	0.02	0.81	0.12	0.23	0.07	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	598	195	39	466	385	217	101	40	193	159
v/c Ratio	0.21	0.54	0.32	0.25	0.80	0.51	0.78	0.20	0.07	0.69	0.32
Control Delay	41.3	13.3	5.1	42.5	40.1	5.0	62.3	32.0	0.2	48.3	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	13.3	5.1	42.5	40.1	5.0	62.3	32.0	0.2	48.3	26.5
Queue Length 50th (ft)	14	144	35	21	233	0	~154	49	0	105	68
Queue Length 95th (ft)	m17	m154	m37	52	#351	60	#292	102	0	164	123
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		160	260		205	285			330	
Base Capacity (vph)	157	1179	646	157	621	784	277	510	566	443	503
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.51	0.30	0.25	0.75	0.49	0.78	0.20	0.07	0.44	0.32

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

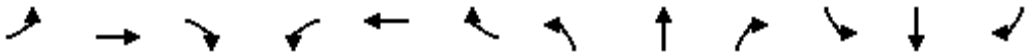
m Volume for 95th percentile queue is metered by upstream signal.

Queues

1: Willow Avenue & International Avenue

Tract Map

Near Term (2026) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	44	209	18	71	32	188	663	27	21	520	12
v/c Ratio	0.10	0.27	0.63	0.17	0.36	0.12	0.63	0.25	0.02	0.20	0.15	0.01
Control Delay	62.3	60.0	16.0	64.4	59.7	1.0	55.5	18.9	6.3	65.0	10.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	60.0	16.0	64.4	59.7	1.0	55.5	18.9	6.3	65.0	10.3	0.0
Queue Length 50th (ft)	9	37	0	15	60	0	84	191	1	18	52	0
Queue Length 95th (ft)	28	73	75	42	108	0	121	351	18	47	105	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	100		20	300		155	250		205
Base Capacity (vph)	201	609	658	209	609	586	383	2637	1207	194	3378	1087
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.32	0.09	0.12	0.05	0.49	0.25	0.02	0.11	0.15	0.01

Intersection Summary

Queues
2: Willow Avenue & Behymer Avenue

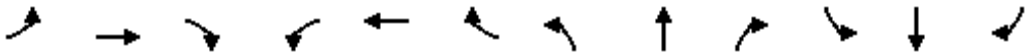
Tract Map
Near Term (2026) WP MIT - PM Pk Hr

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	65	145	48	146	193	851	41	63	761	14
v/c Ratio	0.13	0.32	0.48	0.41	0.53	0.63	0.26	0.04	0.49	0.29	0.02
Control Delay	63.2	58.2	13.2	70.4	55.6	62.2	13.6	0.1	64.6	19.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	58.2	13.2	70.4	55.6	62.2	13.6	0.1	64.6	19.1	0.7
Queue Length 50th (ft)	12	55	0	41	108	160	113	0	45	139	0
Queue Length 95th (ft)	34	93	56	81	173	233	187	0	67	219	2
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	210		250		105	250		200
Base Capacity (vph)	184	612	618	203	593	305	3258	1059	194	2630	855
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.11	0.23	0.24	0.25	0.63	0.26	0.04	0.32	0.29	0.02

Intersection Summary

Queues
3: Willow Avenue & Shepherd Avenue

Tract Map
Near Term (2026) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	268	733	131	362	632	323	297	1470	502	351	1065	210
v/c Ratio	0.72	0.79	0.26	0.86	0.63	0.50	0.76	0.87	0.71	0.81	0.61	0.34
Control Delay	74.0	56.7	9.3	82.7	48.5	9.3	75.7	53.0	26.4	76.7	43.1	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.0	56.7	9.3	82.7	48.5	9.3	75.7	53.0	26.4	76.7	43.1	15.5
Queue Length 50th (ft)	128	342	9	174	273	26	142	489	199	167	311	47
Queue Length 95th (ft)	172	392	59	#248	331	107	191	#647	368	#233	396	127
Internal Link Dist (ft)		615			4134			562			5238	
Turn Bay Length (ft)	230		175	280		200	260		225	280		165
Base Capacity (vph)	468	1090	570	439	1090	681	451	1690	704	461	1744	626
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.67	0.23	0.82	0.58	0.47	0.66	0.87	0.71	0.76	0.61	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	257	56	296	119	274
v/c Ratio	0.40	0.64	0.08	0.24	0.17	0.22
Control Delay	18.4	22.0	3.2	2.9	5.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	22.0	3.2	2.9	5.9	5.6
Queue Length 50th (ft)	37	58	4	10	14	33
Queue Length 95th (ft)	70	105	m8	m26	40	78
Internal Link Dist (ft)	5395	1252		4546		2558
Turn Bay Length (ft)			150		250	
Base Capacity (vph)	638	642	728	1222	713	1231
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.40	0.08	0.24	0.17	0.22

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

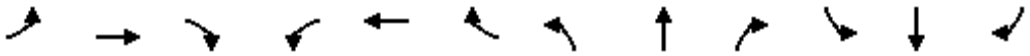
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	147	1055	165	113	1149	210	526	161	162	372	111
v/c Ratio	0.86	0.88	0.26	0.73	0.99	0.94	0.49	0.27	0.83	0.36	0.19
Control Delay	93.0	47.3	6.3	80.5	64.6	99.4	36.4	6.8	87.0	34.0	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.0	47.3	6.3	80.5	64.6	99.4	36.4	6.8	87.0	34.0	2.3
Queue Length 50th (ft)	114	405	5	86	457	164	177	3	119	116	0
Queue Length 95th (ft)	#227	#523	54	#170	#614	#315	233	54	#238	156	4
Internal Link Dist (ft)		1169			1263		627			614	
Turn Bay Length (ft)	250		50	215		230		104	255		25
Base Capacity (vph)	178	1201	640	165	1157	223	1082	592	208	1025	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.88	0.26	0.68	0.99	0.94	0.49	0.27	0.78	0.36	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
9: Clovis Avenue & Shepherd Avenue

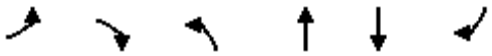
Tract Map
Near Term (2026) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	196	908	163	173	920	149	214	413	184	138	279	164
v/c Ratio	0.65	0.90	0.30	0.56	0.90	0.27	0.91	0.34	0.29	0.42	0.26	0.27
Control Delay	61.7	52.3	10.0	57.7	51.9	8.4	89.5	29.6	9.9	54.0	31.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	52.3	10.0	57.7	51.9	8.4	89.5	29.6	9.9	54.0	31.8	6.0
Queue Length 50th (ft)	73	336	17	64	341	9	158	120	25	51	83	0
Queue Length 95th (ft)	113	#450	70	101	#450	58	#298	163	78	83	121	50
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		270
Base Capacity (vph)	301	1030	548	316	1048	562	241	1214	633	325	1079	598
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.88	0.30	0.55	0.88	0.27	0.89	0.34	0.29	0.42	0.26	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

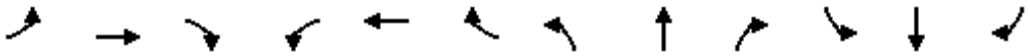


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	111	110	194	1000	673	91
v/c Ratio	0.52	0.38	0.53	0.37	0.37	0.11
Control Delay	43.4	11.0	36.0	4.1	13.9	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	11.0	36.0	4.1	13.9	5.9
Queue Length 50th (ft)	57	0	94	70	104	8
Queue Length 95th (ft)	91	33	139	103	145	29
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		225			50
Base Capacity (vph)	527	549	368	2716	1828	847
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.20	0.53	0.37	0.37	0.11

Intersection Summary

Queues
11: Clovis Avenue & Nees Avenue

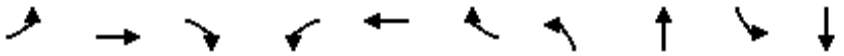
Tract Map
Near Term (2026) WP MIT - PM Pk Hr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	502	418	23	478	79	332	938	49	46	588	51
v/c Ratio	0.42	0.82	0.52	0.17	0.85	0.14	0.92	0.61	0.07	0.33	0.57	0.09
Control Delay	62.3	49.1	5.6	55.3	54.4	1.3	79.1	31.0	0.6	58.9	40.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	49.1	5.6	55.3	54.4	1.3	79.1	31.0	0.6	58.9	40.5	0.3
Queue Length 50th (ft)	44	354	4	17	332	0	257	325	0	34	216	0
Queue Length 95th (ft)	89	#498	76	44	#472	7	#443	414	4	73	279	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			60		60	475		95	260		105
Base Capacity (vph)	150	648	822	134	609	598	360	1549	727	165	1039	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.77	0.51	0.17	0.78	0.13	0.92	0.61	0.07	0.28	0.57	0.09

Intersection Summary

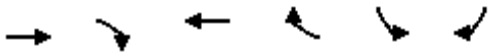
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	388	191	39	350	126	160	1338	116	935
v/c Ratio	0.17	0.84	0.39	0.27	0.75	0.26	0.70	0.82	0.60	0.60
Control Delay	56.7	60.1	14.9	59.4	53.5	6.5	68.0	37.2	66.1	32.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	60.1	14.9	59.4	53.5	6.5	68.0	37.2	66.1	32.4
Queue Length 50th (ft)	18	299	40	30	263	0	126	518	92	320
Queue Length 95th (ft)	47	381	97	68	339	43	192	#827	151	#520
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	450		255	
Base Capacity (vph)	157	592	584	157	592	591	304	1629	232	1567
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.66	0.33	0.25	0.59	0.21	0.53	0.82	0.50	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1773	551	1942	422	74	345
v/c Ratio	0.37	0.42	0.44	0.33	0.13	0.69
Control Delay	7.1	1.5	1.8	1.6	49.2	52.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	1.5	1.8	1.6	49.2	52.3
Queue Length 50th (ft)	147	0	25	9	30	141
Queue Length 95th (ft)	205	34	30	51	51	189
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	565
Base Capacity (vph)	4785	1326	4409	1295	933	802
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.42	0.44	0.33	0.08	0.43

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1507	378	1857	205	536	1018
v/c Ratio	0.84	0.24	0.69	0.30	0.19	0.65
Control Delay	39.7	0.3	23.1	2.4	16.0	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.7	0.3	23.1	2.4	16.0	23.7
Queue Length 50th (ft)	464	0	264	12	84	346
Queue Length 95th (ft)	305	0	282	m18	105	427
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	1804	1599	2677	688	2779	1565
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.24	0.69	0.30	0.19	0.65

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	705	1488	344	332	1184	211	405	875	329	376	482
v/c Ratio	1.02	0.81	0.37	0.84	0.84	0.37	0.70	0.63	0.95	0.35	0.40
Control Delay	81.7	33.0	11.5	79.5	54.6	9.2	62.8	42.3	99.5	48.6	20.6
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.7	33.3	11.5	79.5	54.6	9.2	62.8	42.3	99.5	48.6	20.6
Queue Length 50th (ft)	~356	261	97	155	374	14	181	232	156	108	124
Queue Length 95th (ft)	#486	388	m166	#231	434	80	240	281	#252	142	172
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	350		240	245		150	200		230		185
Base Capacity (vph)	693	1845	936	396	1405	569	575	1393	346	1063	1214
Starvation Cap Reductn	0	60	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.83	0.37	0.84	0.84	0.37	0.70	0.63	0.95	0.35	0.40

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	141	943	170	66	973	33	195	106	20	22	115
v/c Ratio	0.67	0.99	0.20	0.61	0.62	0.04	0.79	0.19	0.19	0.07	0.31
Control Delay	65.9	57.1	6.7	78.5	29.2	0.1	72.7	13.2	57.6	44.6	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	57.1	6.7	78.5	29.2	0.1	72.7	13.2	57.6	44.6	7.1
Queue Length 50th (ft)	106	~781	22	51	305	0	146	14	15	15	0
Queue Length 95th (ft)	171	#1031	60	#111	393	0	#248	64	41	40	38
Internal Link Dist (ft)		426			2153			1247		580	
Turn Bay Length (ft)	250			250		250	250		250		300
Base Capacity (vph)	260	954	868	112	1559	774	270	553	270	310	377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.99	0.20	0.59	0.62	0.04	0.72	0.19	0.07	0.07	0.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

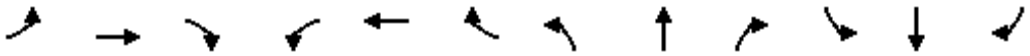
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	616	203	55	694	135	297	128	80	116	162
v/c Ratio	0.32	0.47	0.28	0.37	0.93	0.19	0.90	0.24	0.15	0.67	0.46
Control Delay	49.8	25.8	4.3	50.8	51.2	2.9	71.0	30.6	2.7	63.9	39.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	25.8	4.3	50.8	51.2	2.9	71.0	30.6	2.7	63.9	39.1
Queue Length 50th (ft)	28	155	0	34	435	0	186	66	0	72	88
Queue Length 95th (ft)	63	210	46	73	#682	27	#334	116	15	#148	154
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		160	260		205	285			330	
Base Capacity (vph)	142	1338	725	160	744	729	342	524	532	178	355
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.46	0.28	0.34	0.93	0.19	0.87	0.24	0.15	0.65	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Willow Avenue & International Avenue

Tract Map
Cumulative Year (2046) WP MIT - AM Pk Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	25	101	255	46	486	84	495	491	30	71	668	98
v/c Ratio	0.24	0.19	0.41	0.42	0.88	0.15	0.86	0.29	0.04	0.55	0.38	0.15
Control Delay	66.4	36.6	5.8	72.8	63.3	0.5	49.7	27.6	6.9	76.2	36.1	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	36.6	5.8	72.8	63.3	0.5	49.7	27.6	6.9	76.2	36.1	1.2
Queue Length 50th (ft)	21	64	0	40	398	0	229	201	3	61	175	0
Queue Length 95th (ft)	52	108	61	83	529	0	m287	m266	m15	113	225	7
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	100		20	300		155	250		205
Base Capacity (vph)	105	610	691	118	609	621	634	1680	806	157	1778	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.17	0.37	0.39	0.80	0.14	0.78	0.29	0.04	0.45	0.38	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

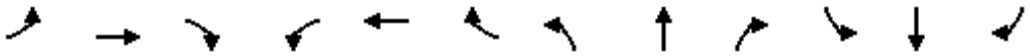
Queues
2: Willow Avenue & Behymer Avenue

Tract Map
Cumulative Year (2046) WP MIT - AM Pk Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	78	171	272	108	583	149	882	22	64	878	86
v/c Ratio	0.57	0.27	0.38	0.68	0.94	0.83	0.50	0.04	0.49	0.57	0.16
Control Delay	75.5	34.0	5.2	80.1	66.1	94.0	37.1	0.1	93.5	24.1	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	34.0	5.2	80.1	66.1	94.0	37.1	0.1	93.5	24.1	0.8
Queue Length 50th (ft)	67	108	0	93	480	129	228	0	59	98	0
Queue Length 95th (ft)	120	175	63	154	#757	#240	286	0	110	122	1
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	210		250		105	250		200
Base Capacity (vph)	180	643	724	199	620	192	1762	627	194	1534	549
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.27	0.38	0.54	0.94	0.78	0.50	0.04	0.33	0.57	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	122	455	311	338	701	276	424	996	349	286	1450	229
v/c Ratio	0.48	0.69	0.60	0.75	0.79	0.48	0.78	0.50	0.40	0.74	0.81	0.37
Control Delay	70.4	60.1	13.3	56.4	65.6	19.7	68.9	35.9	8.9	73.6	48.2	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.4	60.1	13.3	56.4	65.6	19.7	68.9	35.9	8.9	73.6	48.2	19.6
Queue Length 50th (ft)	58	214	29	136	304	85	198	256	63	137	458	71
Queue Length 95th (ft)	90	259	117	m153	m315	m90	262	360	125	182	#638	163
Internal Link Dist (ft)		615			4144			562			5238	
Turn Bay Length (ft)	230		175	280		200	260		225	280		165
Base Capacity (vph)	459	1069	670	467	1058	634	545	1993	874	456	1785	627
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.43	0.46	0.72	0.66	0.44	0.78	0.50	0.40	0.63	0.81	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	167	54	478	265	350
v/c Ratio	0.55	0.29	0.82	0.18	0.48
Control Delay	13.8	36.2	35.5	2.7	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	36.2	35.5	2.7	23.4
Queue Length 50th (ft)	3	26	213	23	126
Queue Length 95th (ft)	56	56	289	53	#269
Internal Link Dist (ft)	3722	1173		2558	543
Turn Bay Length (ft)			300		
Base Capacity (vph)	481	419	634	1436	724
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.35	0.13	0.75	0.18	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	3	249	47	572	413	125	305	180	649
v/c Ratio	0.02	0.35	0.13	0.79	0.49	0.58	0.48	0.74	0.96
Control Delay	18.0	20.5	20.6	39.2	4.5	62.5	36.1	68.4	63.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	20.5	20.6	39.2	4.5	62.5	36.1	68.4	63.8
Queue Length 50th (ft)	1	108	23	380	12	91	187	133	~535
Queue Length 95th (ft)	7	146	42	440	63	#236	308	#249	#786
Internal Link Dist (ft)		5395		1252			2573		2558
Turn Bay Length (ft)	200		200		200	150		250	
Base Capacity (vph)	160	878	466	905	965	215	640	252	679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.28	0.10	0.63	0.43	0.58	0.48	0.71	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

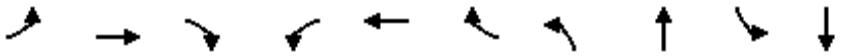
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	96	760	396	165	972	237	337	100	360	970	134
v/c Ratio	0.87	0.85	0.55	0.77	0.91	0.94	0.41	0.21	0.79	0.79	0.22
Control Delay	117.2	64.7	17.5	84.9	59.8	105.0	49.8	1.5	63.2	48.5	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.2	64.7	17.5	84.9	59.8	105.0	49.8	1.5	63.2	48.5	9.1
Queue Length 50th (ft)	84	387	150	153	454	224	145	0	317	439	13
Queue Length 95th (ft)	m#201	#517	209	227	#553	#390	195	5	#441	527	62
Internal Link Dist (ft)		1159			1263		627			2587	
Turn Bay Length (ft)	230		50	215		230		104	255		25
Base Capacity (vph)	110	895	729	277	1096	256	816	486	463	1230	623
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.85	0.54	0.60	0.89	0.93	0.41	0.21	0.78	0.79	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



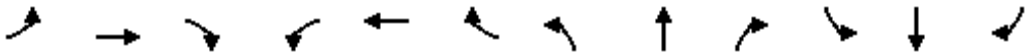
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	20	297	186	229	640	236	128	245	178	525
v/c Ratio	0.21	0.73	0.35	0.80	0.89	0.31	0.74	0.46	0.75	0.88
Control Delay	45.8	43.5	3.6	57.8	43.0	4.0	67.0	29.7	58.4	47.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	43.5	3.6	57.8	43.0	4.0	67.0	29.7	58.4	47.6
Queue Length 50th (ft)	11	154	0	125	290	0	73	113	98	287
Queue Length 95th (ft)	34	241	27	#232	#575	46	#174	188	#193	#486
Internal Link Dist (ft)		1252			1804			313		384
Turn Bay Length (ft)	100		200	235		250	225		255	
Base Capacity (vph)	97	446	558	306	720	755	173	529	248	600
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.67	0.33	0.75	0.89	0.31	0.74	0.46	0.72	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	359	39	95	495	196	33	898
v/c Ratio	0.77	0.08	0.48	0.49	0.21	0.23	0.51
Control Delay	38.8	1.3	41.3	15.0	2.9	38.6	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	1.3	41.3	15.0	2.9	38.6	17.3
Queue Length 50th (ft)	165	0	45	116	0	16	166
Queue Length 95th (ft)	238	5	91	293	35	43	251
Internal Link Dist (ft)				1292			133
Turn Bay Length (ft)	335	100	50			105	
Base Capacity (vph)	584	578	223	1000	934	144	1766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.07	0.43	0.49	0.21	0.23	0.51

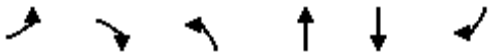
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	120	778	228	346	734	180	127	214	188	173	649	311
v/c Ratio	0.47	0.85	0.47	0.77	0.65	0.31	0.70	0.26	0.38	0.26	0.56	0.44
Control Delay	68.2	58.6	25.7	70.1	43.8	12.4	79.6	43.6	10.3	50.1	42.2	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	58.6	25.7	70.1	43.8	12.4	79.6	43.6	10.3	50.1	42.2	6.1
Queue Length 50th (ft)	55	343	87	159	289	33	114	83	13	71	263	0
Queue Length 95th (ft)	87	#467	177	205	366	93	177	121	78	108	352	75
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		270
Base Capacity (vph)	592	924	486	598	1126	590	294	826	498	659	1150	714
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.84	0.47	0.58	0.65	0.31	0.43	0.26	0.38	0.26	0.56	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

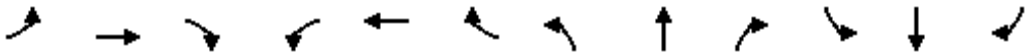


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	92	254	308	496	1065	327
v/c Ratio	0.46	0.63	0.76	0.18	0.61	0.39
Control Delay	42.3	12.2	42.3	3.0	19.1	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	12.2	42.3	3.0	19.1	11.8
Queue Length 50th (ft)	47	0	153	27	206	65
Queue Length 95th (ft)	90	65	224	50	333	156
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		225			50
Base Capacity (vph)	527	651	429	2715	1734	831
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.39	0.72	0.18	0.61	0.39

Intersection Summary

Queues
11: Clovis Avenue & Nees Avenue

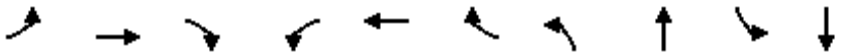
Tract Map
Cumulative Year (2046) WP MIT - AM Pk Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	77	435	389	40	512	253	175	508	23	125	926	148
v/c Ratio	0.48	0.72	0.52	0.25	0.91	0.46	0.91	0.41	0.04	0.72	0.77	0.25
Control Delay	54.2	38.3	7.6	46.6	56.7	18.2	90.2	26.9	0.1	67.8	35.8	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	38.3	7.6	46.6	56.7	18.2	90.2	26.9	0.1	67.8	35.8	9.3
Queue Length 50th (ft)	48	250	21	24	310	68	112	135	0	79	290	16
Queue Length 95th (ft)	95	#373	100	57	#498	142	#238	184	0	#165	#378	62
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			60		60	475		95	260		105
Base Capacity (vph)	159	620	754	160	577	562	193	1242	613	177	1209	600
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.70	0.52	0.25	0.89	0.45	0.91	0.41	0.04	0.71	0.77	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

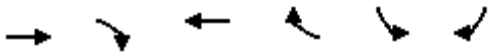


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	317	210	50	455	118	303	667	176	1298
v/c Ratio	0.12	0.70	0.43	0.35	0.82	0.22	0.81	0.47	0.81	1.14
Control Delay	55.8	50.6	14.6	61.3	53.8	10.2	65.5	29.7	81.0	111.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	50.6	14.6	61.3	53.8	10.2	65.5	29.7	81.0	111.5
Queue Length 50th (ft)	13	246	44	39	327	14	226	198	138	~668
Queue Length 95th (ft)	37	309	103	80	459	58	#455	300	#252	#847
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	450		255	
Base Capacity (vph)	151	572	578	155	596	570	373	1423	231	1142
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.55	0.36	0.32	0.76	0.21	0.81	0.47	0.76	1.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1315	956	2274	499	83	837
v/c Ratio	0.37	0.73	0.70	0.39	0.07	0.85
Control Delay	17.2	4.9	11.1	1.9	28.2	47.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	4.9	11.1	1.9	28.2	47.8
Queue Length 50th (ft)	183	0	161	12	23	348
Queue Length 95th (ft)	210	61	159	58	42	441
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	565
Base Capacity (vph)	3531	1301	3259	1283	1245	1031
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.73	0.70	0.39	0.07	0.81

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1174	254	2304	101	528	684
v/c Ratio	0.47	0.16	0.62	0.12	0.26	0.59
Control Delay	10.8	0.2	16.2	1.5	25.9	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	0.2	16.2	1.5	25.9	28.8
Queue Length 50th (ft)	71	0	237	3	103	224
Queue Length 95th (ft)	80	0	287	m6	131	294
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	2472	1583	3704	829	2002	1162
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.16	0.62	0.12	0.26	0.59

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	441	1006	391	211	1196	200	409	658	222	515	775
v/c Ratio	0.94	0.60	0.46	0.62	0.80	0.34	0.67	0.45	0.60	0.45	0.63
Control Delay	71.9	27.1	5.6	64.5	47.1	10.1	56.2	34.4	62.5	45.1	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.9	27.1	5.6	64.5	47.1	10.1	56.2	34.4	62.5	45.1	26.7
Queue Length 50th (ft)	197	186	57	89	341	23	168	147	93	138	234
Queue Length 95th (ft)	#298	224	80	131	399	84	224	187	137	176	310
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	350		240	245		150	200		230		185
Base Capacity (vph)	470	1677	843	343	1498	581	607	1472	373	1145	1234
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.60	0.46	0.62	0.80	0.34	0.67	0.45	0.60	0.45	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	227	790	208	70	765	101	117	140	339	450	489
v/c Ratio	0.90	0.65	0.30	0.44	0.80	0.11	0.73	0.37	0.94	0.76	0.58
Control Delay	75.3	28.5	4.7	57.6	31.0	0.4	67.1	27.4	71.7	37.9	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.3	28.5	4.7	57.6	31.0	0.4	67.1	27.4	71.7	37.9	16.5
Queue Length 50th (ft)	129	205	0	43	171	0	66	54	191	230	158
Queue Length 95th (ft)	#262	271	47	m60	m222	m0	#152	108	#356	#356	254
Internal Link Dist (ft)		426			710			1247		580	
Turn Bay Length (ft)	265		250	250		250	250		300		300
Base Capacity (vph)	253	1222	682	158	953	881	160	382	361	591	849
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.65	0.30	0.44	0.80	0.11	0.73	0.37	0.94	0.76	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	55	732	343	78	489	402	226	104	42	356	573
v/c Ratio	0.35	0.65	0.47	0.50	0.76	0.50	0.92	0.33	0.10	0.88	1.20
Control Delay	45.3	29.3	4.8	50.6	35.7	4.8	84.4	40.7	0.5	56.8	142.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	29.3	4.8	50.6	35.7	4.8	84.4	40.7	0.5	56.8	142.1
Queue Length 50th (ft)	30	182	0	43	249	0	~164	57	0	190	~405
Queue Length 95th (ft)	67	242	57	88	#402	61	#305	109	0	#329	#609
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		160	260		205	285			330	
Base Capacity (vph)	157	1179	756	157	667	824	246	312	416	443	476
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.62	0.45	0.50	0.73	0.49	0.92	0.33	0.10	0.80	1.20

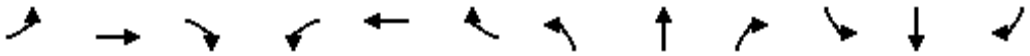
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Willow Avenue & International Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour



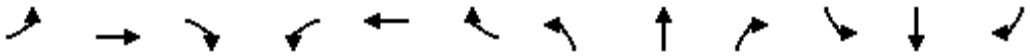
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	136	213	18	112	61	191	680	79	73	533	13
v/c Ratio	0.10	0.57	0.55	0.17	0.42	0.19	0.63	0.29	0.07	0.53	0.17	0.01
Control Delay	62.3	64.3	12.0	64.5	56.0	1.8	49.7	24.3	13.2	73.7	12.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	64.3	12.0	64.5	56.0	1.8	49.7	24.3	13.2	73.7	12.8	0.0
Queue Length 50th (ft)	9	114	0	15	92	0	85	250	20	63	61	0
Queue Length 95th (ft)	28	177	71	42	150	3	124	367	76	113	117	0
Internal Link Dist (ft)		1854			1594			2622			1049	
Turn Bay Length (ft)	245		235	100		20	300		155	250		205
Base Capacity (vph)	201	609	661	209	609	592	363	2364	1096	194	3173	1030
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.22	0.32	0.09	0.18	0.10	0.53	0.29	0.07	0.38	0.17	0.01

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	132	146	139	211	195	853	196	128	762	14
v/c Ratio	0.13	0.58	0.45	0.78	0.54	0.67	0.32	0.22	0.69	0.33	0.02
Control Delay	63.2	65.6	12.2	86.3	49.3	64.6	21.3	9.3	68.0	22.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	65.6	12.2	86.3	49.3	64.6	21.3	9.3	68.0	22.5	0.6
Queue Length 50th (ft)	12	112	0	119	144	163	157	32	111	163	0
Queue Length 95th (ft)	35	170	60	#206	237	242	232	95	113	239	2
Internal Link Dist (ft)		1692			5395		5238			2622	
Turn Bay Length (ft)	235		240	210		250		105	250		200
Base Capacity (vph)	184	612	619	203	591	292	2652	886	211	2330	772
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.22	0.24	0.68	0.36	0.67	0.32	0.22	0.61	0.33	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	282	765	412	380	661	338	312	1544	527	366	1118	220
v/c Ratio	0.75	0.82	0.58	0.92	0.66	0.55	0.77	0.90	0.71	0.87	0.65	0.35
Control Delay	75.7	58.7	30.1	66.3	71.7	38.4	75.2	54.5	30.7	83.4	43.9	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.7	58.7	30.1	66.3	71.7	38.4	75.2	54.5	30.7	83.4	43.9	15.7
Queue Length 50th (ft)	135	357	249	181	346	164	149	522	327	175	333	52
Queue Length 95th (ft)	183	425	335	m187	m353	m173	198	#619	462	#279	408	131
Internal Link Dist (ft)		615			4144			562			5238	
Turn Bay Length (ft)	230		175	280		200	260		225	280		165
Base Capacity (vph)	437	1020	739	415	1029	628	475	1720	747	420	1731	625
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.75	0.56	0.92	0.64	0.54	0.66	0.90	0.71	0.87	0.65	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	250	2	191	320	332
v/c Ratio	0.72	0.01	0.62	0.23	0.35
Control Delay	26.9	25.0	39.2	4.5	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	25.0	39.2	4.5	15.2
Queue Length 50th (ft)	55	1	89	38	90
Queue Length 95th (ft)	119	6	144	93	201
Internal Link Dist (ft)	3722	1173		2558	543
Turn Bay Length (ft)			300		
Base Capacity (vph)	495	477	414	1363	947
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.00	0.46	0.23	0.35

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	8	517	20	237	174	162	497	221	279
v/c Ratio	0.03	0.92	0.16	0.42	0.29	0.73	0.81	0.85	0.42
Control Delay	14.9	44.2	18.9	19.2	4.5	47.5	31.2	57.4	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	44.2	18.9	19.2	4.5	47.5	31.2	57.4	17.6
Queue Length 50th (ft)	2	169	5	67	0	58	160	80	76
Queue Length 95th (ft)	10	#338	20	121	36	#140	#311	#189	135
Internal Link Dist (ft)		5395		1252			2573		2558
Turn Bay Length (ft)	200		200		200	150		250	
Base Capacity (vph)	318	577	129	585	618	223	615	260	657
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.90	0.16	0.41	0.28	0.73	0.81	0.85	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

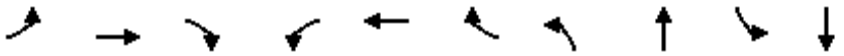
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	155	1099	234	116	1202	337	732	166	171	542	116
v/c Ratio	0.97	0.89	0.24	0.79	1.00	0.98	0.64	0.28	0.85	0.63	0.23
Control Delay	112.2	49.4	20.6	99.5	73.3	100.5	45.4	11.5	95.8	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.2	49.4	20.6	99.5	73.3	100.5	45.4	11.5	95.8	53.0	3.0
Queue Length 50th (ft)	153	533	137	109	~592	320	316	25	159	242	0
Queue Length 95th (ft)	m#246	#627	m187	#214	#754	#520	388	84	#273	307	19
Internal Link Dist (ft)		1159			1263		627			2587	
Turn Bay Length (ft)	230		50	215		230		104	255		25
Base Capacity (vph)	160	1237	958	149	1199	345	1147	600	221	862	505
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.89	0.24	0.78	1.00	0.98	0.64	0.28	0.77	0.63	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	12	391	87	50	264	122	193	718	191	428
v/c Ratio	0.13	0.88	0.19	0.54	0.47	0.22	0.78	0.90	0.86	0.55
Control Delay	49.0	58.0	3.8	68.6	31.8	6.2	63.4	44.0	78.8	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	58.0	3.8	68.6	31.8	6.2	63.4	44.0	78.8	27.2
Queue Length 50th (ft)	7	235	0	32	126	0	119	432	122	219
Queue Length 95th (ft)	26	#383	23	#83	227	43	#219	#682	#253	323
Internal Link Dist (ft)		1252			1804			313		384
Turn Bay Length (ft)	100		200	235		250	225		255	
Base Capacity (vph)	89	479	493	92	586	583	265	796	221	783
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.82	0.18	0.54	0.45	0.21	0.73	0.90	0.86	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	322	10	35	1029	452	66	572
v/c Ratio	0.91	0.03	0.30	0.89	0.39	0.63	0.25
Control Delay	66.8	0.1	47.2	27.7	1.9	70.0	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.8	0.1	47.2	27.7	1.9	70.0	8.2
Queue Length 50th (ft)	180	0	19	488	0	38	77
Queue Length 95th (ft)	#332	0	50	#805	36	#103	106
Internal Link Dist (ft)				1292			133
Turn Bay Length (ft)	335	100	50			105	
Base Capacity (vph)	361	381	118	1154	1152	104	2291
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.03	0.30	0.89	0.39	0.63	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

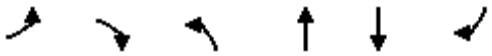
Queues
9: Clovis Avenue & Shepherd Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	201	946	172	302	962	155	234	712	385	143	287	169
v/c Ratio	0.67	0.93	0.32	0.96	0.93	0.28	0.96	0.59	0.60	0.46	0.27	0.29
Control Delay	62.5	56.2	10.8	93.1	55.0	9.0	96.8	33.9	23.7	55.0	32.4	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	56.2	10.8	93.1	55.0	9.0	96.8	33.9	23.7	55.0	32.4	6.0
Queue Length 50th (ft)	75	357	22	116	362	12	175	227	146	53	86	0
Queue Length 95th (ft)	115	#481	77	#204	#485	63	#335	291	251	86	124	51
Internal Link Dist (ft)		1209			1573			1877			1292	
Turn Bay Length (ft)	240		50	245		175	235		50	250		270
Base Capacity (vph)	301	1025	546	316	1048	562	245	1214	639	313	1045	587
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.92	0.32	0.96	0.92	0.28	0.96	0.59	0.60	0.46	0.27	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

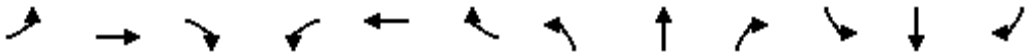


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	175	117	179	1296	685	84
v/c Ratio	0.65	0.34	0.67	0.50	0.36	0.10
Control Delay	44.8	8.9	45.6	6.2	13.7	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	8.9	45.6	6.2	13.7	7.7
Queue Length 50th (ft)	89	0	91	125	104	10
Queue Length 95th (ft)	144	42	147	213	185	40
Internal Link Dist (ft)	870			436	1877	
Turn Bay Length (ft)	250		225			50
Base Capacity (vph)	527	554	378	2605	1917	878
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.21	0.47	0.50	0.36	0.10

Intersection Summary

Queues
11: Clovis Avenue & Nees Avenue

Tract Map
Cumulative Year (2046) WP MIT - PM Pk Hour

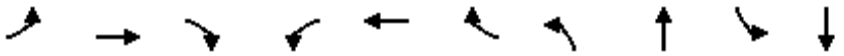


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	107	632	439	35	501	373	349	973	51	117	621	53
v/c Ratio	0.73	0.93	0.55	0.26	0.86	0.65	0.94	0.74	0.08	0.75	0.70	0.11
Control Delay	81.2	59.1	10.2	57.7	55.1	28.3	82.4	37.8	1.0	80.7	45.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.2	59.1	10.2	57.7	55.1	28.3	82.4	37.8	1.0	80.7	45.9	0.5
Queue Length 50th (ft)	82	~493	53	26	357	159	~281	353	0	90	231	0
Queue Length 95th (ft)	#169	#739	154	60	#531	267	#473	436	5	#178	297	0
Internal Link Dist (ft)		389			2634			2691			2832	
Turn Bay Length (ft)	230			60		60	475		95	260		105
Base Capacity (vph)	150	681	798	134	606	596	370	1312	630	165	893	486
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.93	0.55	0.26	0.83	0.63	0.94	0.74	0.08	0.71	0.70	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

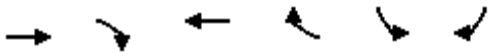


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	439	201	41	367	133	284	1415	136	992
v/c Ratio	0.18	0.87	0.39	0.29	0.67	0.24	0.85	0.98	0.68	0.83
Control Delay	56.9	60.6	15.0	59.7	44.9	6.7	72.8	56.4	70.2	47.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	60.6	15.0	59.7	44.9	6.7	72.8	56.4	70.2	47.6
Queue Length 50th (ft)	19	335	45	32	267	3	216	~653	108	~424
Queue Length 95th (ft)	49	434	103	70	350	48	#401	#910	175	#588
Internal Link Dist (ft)		611			755			2017		2691
Turn Bay Length (ft)	150		105	165		105	450		255	
Base Capacity (vph)	171	596	587	171	612	606	337	1450	231	1194
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.74	0.34	0.24	0.60	0.22	0.84	0.98	0.59	0.83

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1872	615	2575	555	78	410
v/c Ratio	0.41	0.47	0.61	0.43	0.12	0.72
Control Delay	9.2	1.9	2.7	2.1	45.3	56.3
Queue Delay	0.0	0.0	0.3	0.0	0.0	0.0
Total Delay	9.2	1.9	3.0	2.1	45.3	56.3
Queue Length 50th (ft)	188	0	52	9	30	186
Queue Length 95th (ft)	248	40	64	m30	51	236
Internal Link Dist (ft)	587		722			
Turn Bay Length (ft)		365			235	565
Base Capacity (vph)	4573	1310	4253	1295	884	739
Starvation Cap Reductn	0	0	785	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.47	0.74	0.43	0.09	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	1580	409	2382	221	812	1051
v/c Ratio	0.93	0.26	0.95	0.35	0.28	0.65
Control Delay	47.5	0.4	34.4	4.0	15.5	21.9
Queue Delay	1.9	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	0.4	34.4	4.0	15.5	21.9
Queue Length 50th (ft)	513	0	526	20	128	344
Queue Length 95th (ft)	#308	0	m541	m23	154	425
Internal Link Dist (ft)	722		551			
Turn Bay Length (ft)						
Base Capacity (vph)	1694	1599	2514	634	2887	1624
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	46	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.26	0.95	0.35	0.28	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	732	1561	364	340	1482	221	634	973	345	394	514
v/c Ratio	1.10	0.85	0.37	0.85	1.03	0.40	0.75	0.70	1.00	0.60	0.51
Control Delay	101.5	35.6	4.4	80.2	80.2	15.7	55.3	44.4	109.9	61.8	25.9
Queue Delay	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.5	36.7	4.4	80.2	80.2	15.7	55.3	44.4	109.9	61.8	25.9
Queue Length 50th (ft)	~398	476	65	157	~526	48	277	266	164	126	143
Queue Length 95th (ft)	m#482	m524	m62	#228	#624	123	347	319	#269	164	202
Internal Link Dist (ft)		551			830			361		659	
Turn Bay Length (ft)	350		240	245		150	200		230		185
Base Capacity (vph)	668	1837	995	420	1441	551	850	1394	346	660	1011
Starvation Cap Reductn	0	110	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.90	0.37	0.81	1.03	0.40	0.75	0.70	1.00	0.60	0.51

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	455	981	179	68	1016	355	204	400	179	199	411
v/c Ratio	1.04	0.57	0.21	0.48	0.96	0.46	0.86	1.02	0.99	0.60	0.53
Control Delay	94.7	22.8	3.2	60.5	59.4	16.7	78.1	94.2	116.3	50.2	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.7	22.8	3.2	60.5	59.4	16.7	78.1	94.2	116.3	50.2	21.1
Queue Length 50th (ft)	~347	266	0	47	372	114	142	~295	128	131	175
Queue Length 95th (ft)	#546	333	38	93	#509	195	#267	#489	#272	210	270
Internal Link Dist (ft)		426			710			1247		580	
Turn Bay Length (ft)	265		250	250		250	250		300		300
Base Capacity (vph)	438	1718	861	147	1053	764	246	391	180	334	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.57	0.21	0.46	0.96	0.46	0.83	1.02	0.99	0.60	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	645	212	76	726	297	351	389	114	163	282
v/c Ratio	0.40	0.46	0.28	0.50	0.98	0.39	1.04	0.82	0.23	0.92	0.92
Control Delay	52.6	25.0	4.2	55.6	61.0	8.5	99.4	50.8	6.4	94.7	77.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	25.0	4.2	55.6	61.0	8.5	99.4	50.8	6.4	94.7	77.1
Queue Length 50th (ft)	35	165	0	47	~504	34	~242	234	0	105	175
Queue Length 95th (ft)	76	221	47	94	#727	98	#417	#384	39	#228	#332
Internal Link Dist (ft)		329			709			846			2563
Turn Bay Length (ft)	115		160	260		205	285			330	
Base Capacity (vph)	142	1389	751	160	740	760	339	475	494	178	305
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.46	0.28	0.47	0.98	0.39	1.04	0.82	0.23	0.92	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX H

HCS WORKSHEETS

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) NP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1869	7098	0.26	66.6	9.4	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.962	1869	1032	7200	4000	0.26	0.26	62.6	58.0	10.0	13.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	811	4688	0.17	64.3	6.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.991	1040	229	4800	1900	0.22	0.12	65.5	65.5	7.9	8.9	A

2305

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	1.000	1136	84	4800	2000	0.24	0.04	66.1	66.1	8.6	9.4	A

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1142	4688	0.24	64.4	8.9	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.7	8.5	8.0	1.20	A

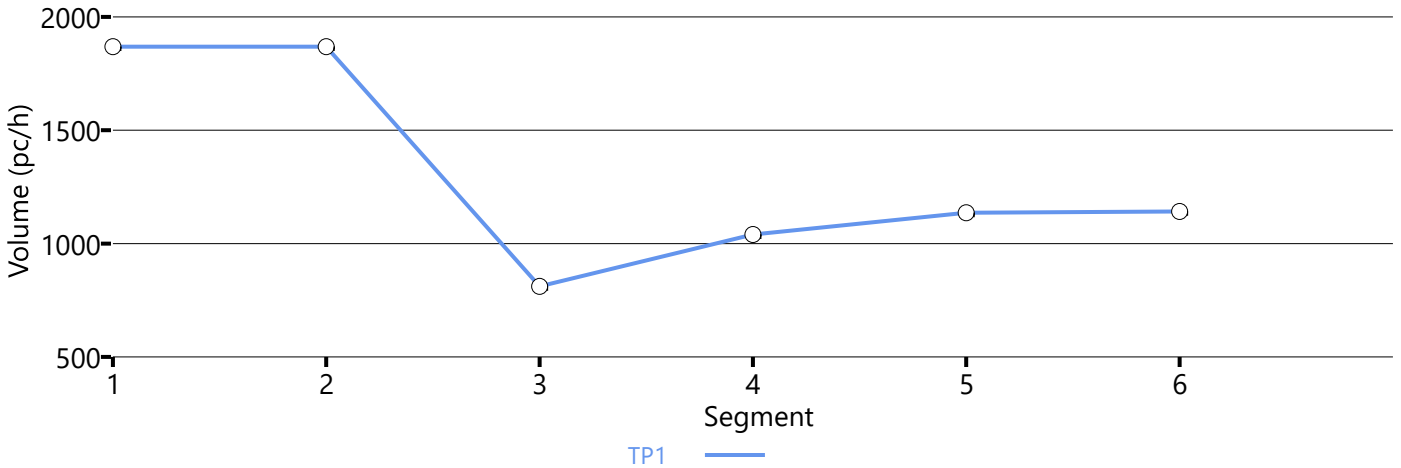
Facility Overall Results

Space Mean Speed, mi/h	64.7	Density, veh/mi/ln	8.0
Average Travel Time, min	1.20	Density, pc/mi/ln	8.5

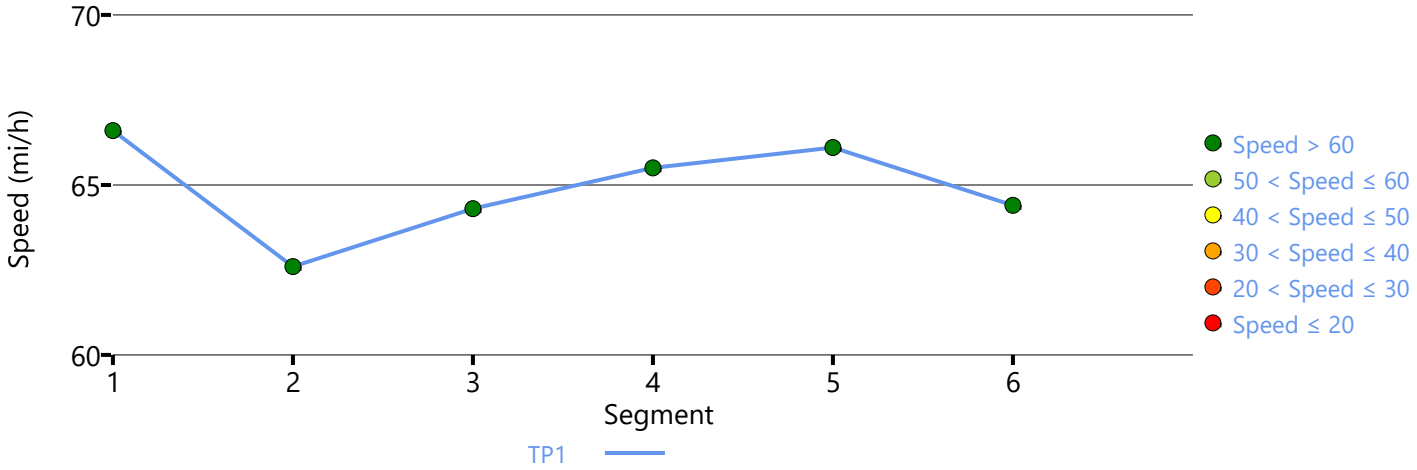
Messages

Comments

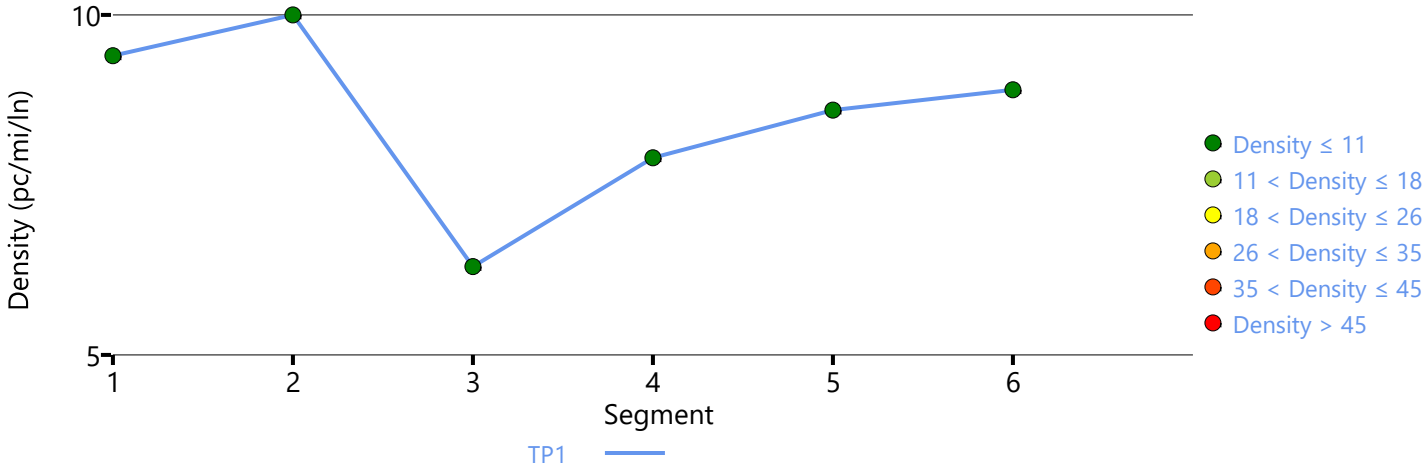
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) NP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4382	4716	0.93	56.5	38.8	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4382	850	4800	2000	0.91	0.43	58.5	58.5	37.5	38.2	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3481	4672	0.75	62.4	27.9	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.981	4106	625	4800	2000	0.86	0.31	58.0	58.0	35.4	33.9	D

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.982	4666	532	7200	2000	0.65	0.27	71.8	-	21.7	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4691	7008	0.67	63.4	24.7	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.2	29.3	27.5	1.30	D

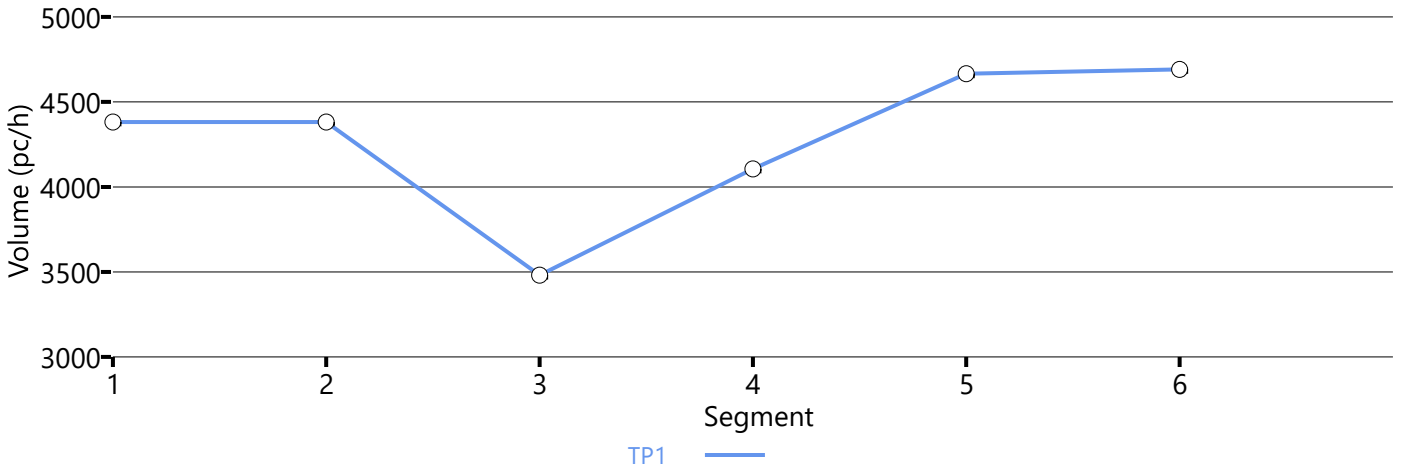
Facility Overall Results

Space Mean Speed, mi/h	62.2	Density, veh/mi/ln	27.5
Average Travel Time, min	1.30	Density, pc/mi/ln	29.3

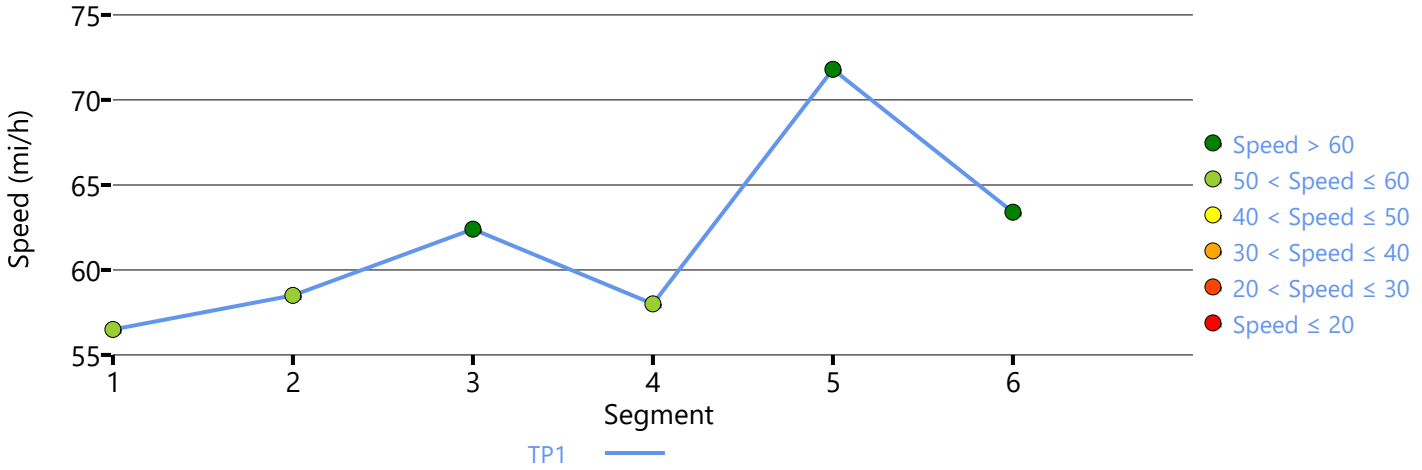
Messages

Comments

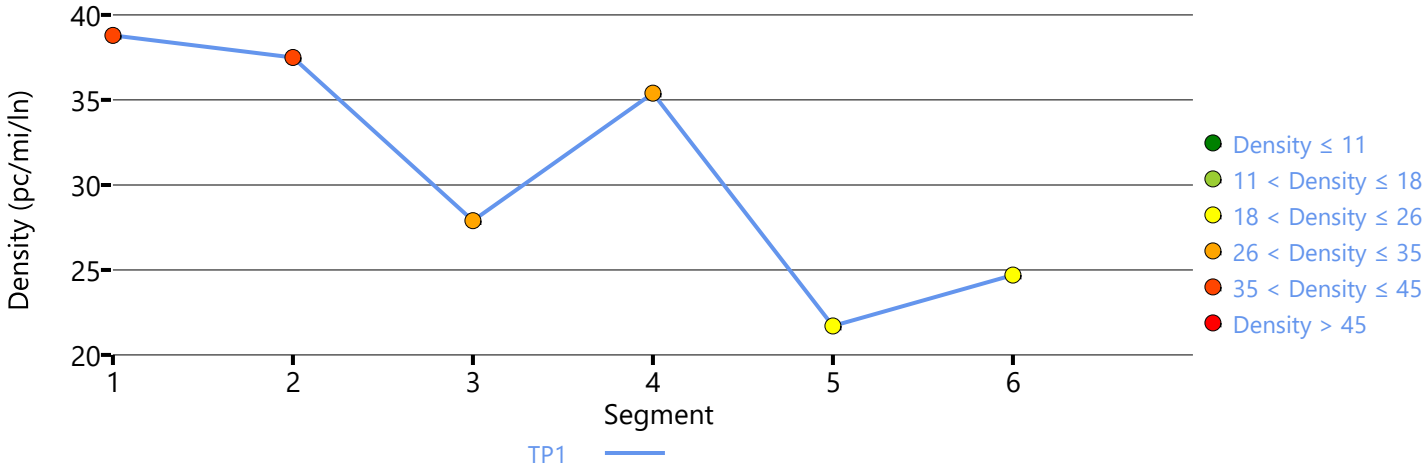
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) NP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5011	7098	0.71	65.1	25.7	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.990	5011	1262	7200	4000	0.70	0.32	64.5	57.3	25.9	26.6	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3679	4688	0.78	61.9	29.7	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	4066	387	4800	1900	0.85	0.20	58.3	58.3	34.9	32.4	D

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4284	197	4800	2000	0.89	0.10	57.1	57.1	37.5	33.9	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4296	4688	0.92	56.8	37.8	E

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.2	30.2	28.4	1.30	D

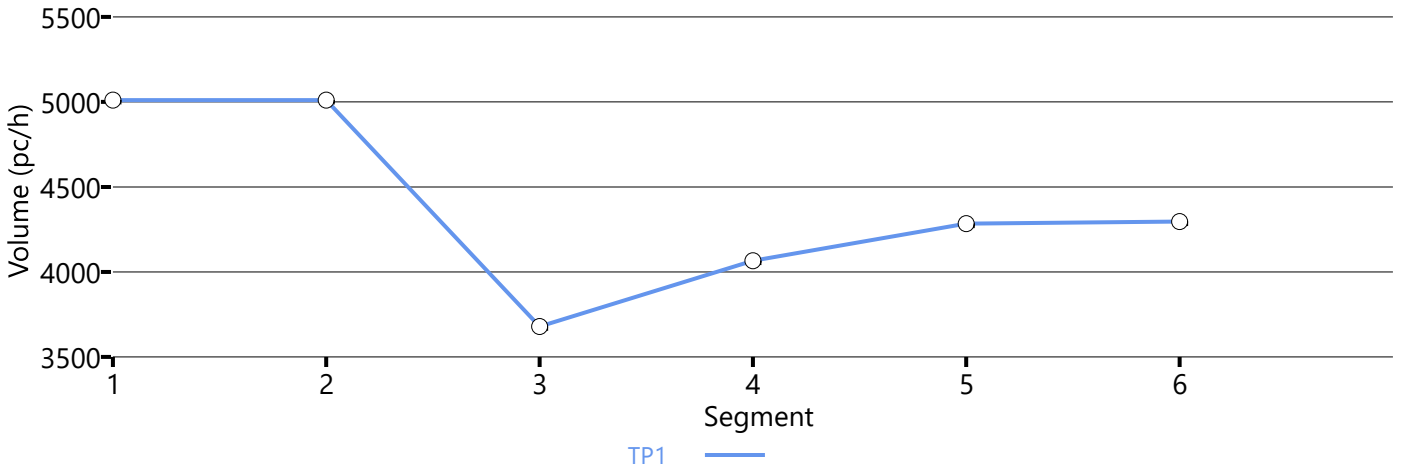
Facility Overall Results

Space Mean Speed, mi/h	61.2	Density, veh/mi/ln	28.4
Average Travel Time, min	1.30	Density, pc/mi/ln	30.2

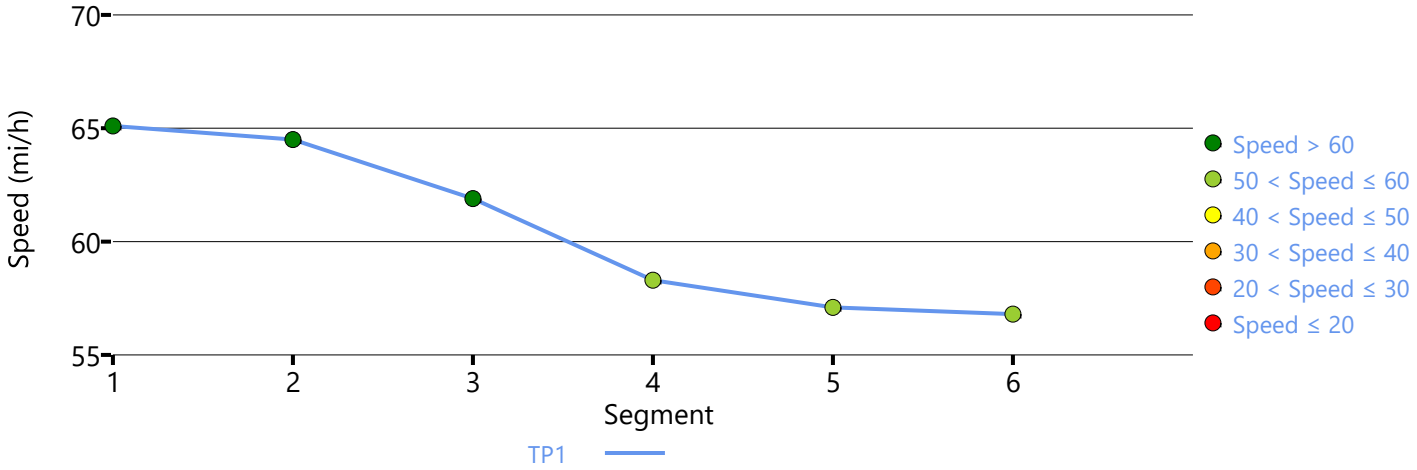
Messages

Comments

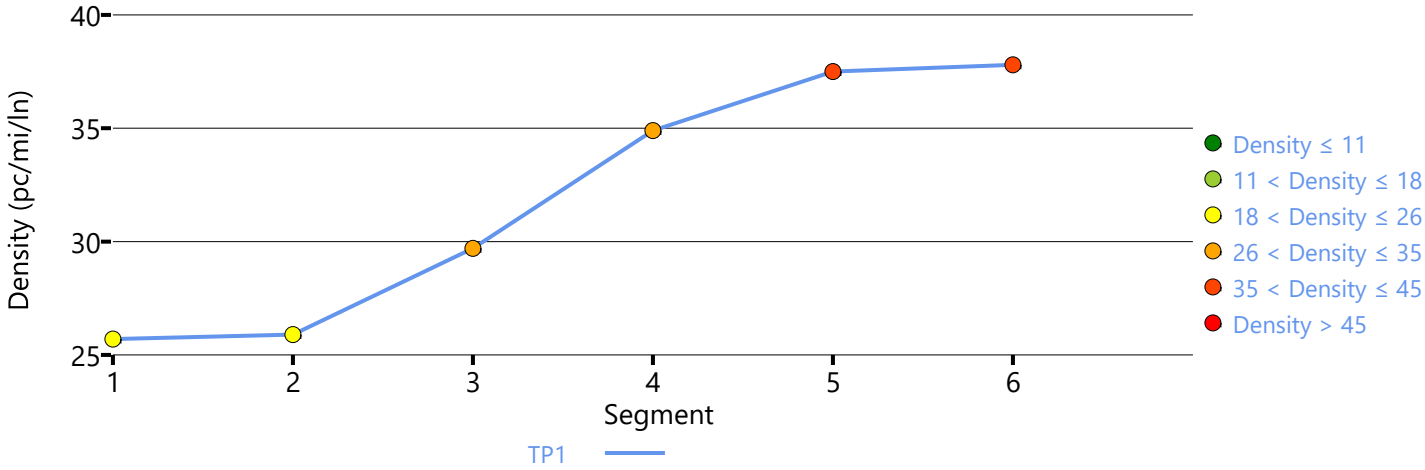
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) NP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4451	4716	1.01	41.9	53.1	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4406	436	4800	2000	0.99	0.22	40.6	59.8	54.2	41.5	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3887	4672	0.92	29.4	66.1	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.985	4470	583	4800	2000	1.02	0.29	54.6	54.6	40.9	36.8	F

2314

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	5039	569	7200	2000	0.76	0.28	65.3	-	25.7	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5039	7008	0.79	62.8	26.7	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	45.2	43.0	40.4	1.90	F

Facility Overall Results

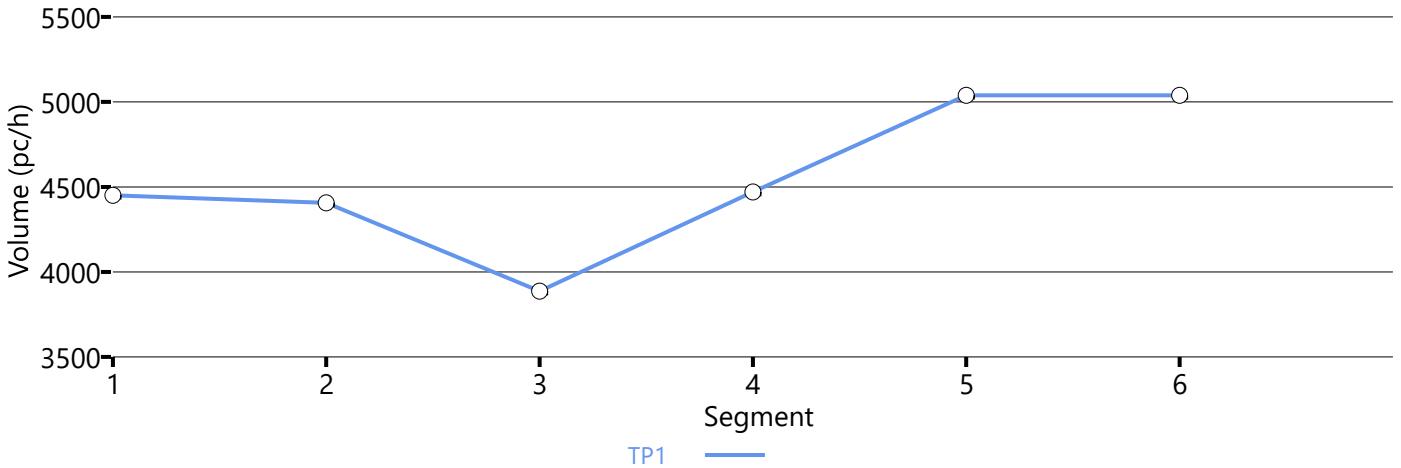
Space Mean Speed, mi/h	45.2	Density, veh/mi/ln	40.4
Average Travel Time, min	1.90	Density, pc/mi/ln	43.0

Messages

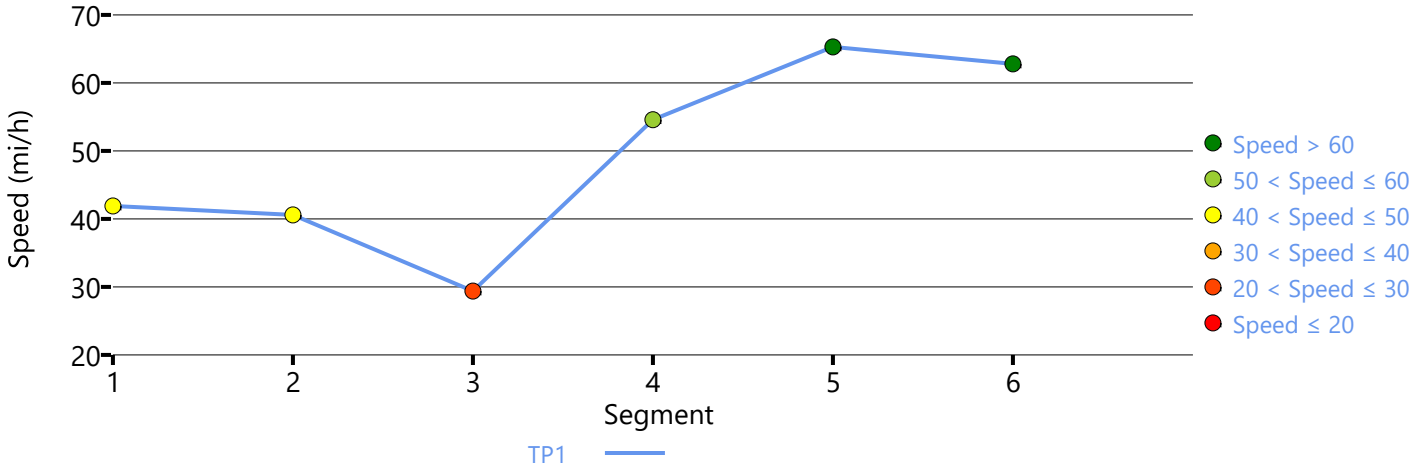
WARNING 1	Oversaturated conditions currently exist in boundary segment 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary time period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Queue extends past the beginning of the facility on time period 1. Consider expanding the length of the facility to account for these vehicles performance and affect on upstream segments.

Comments

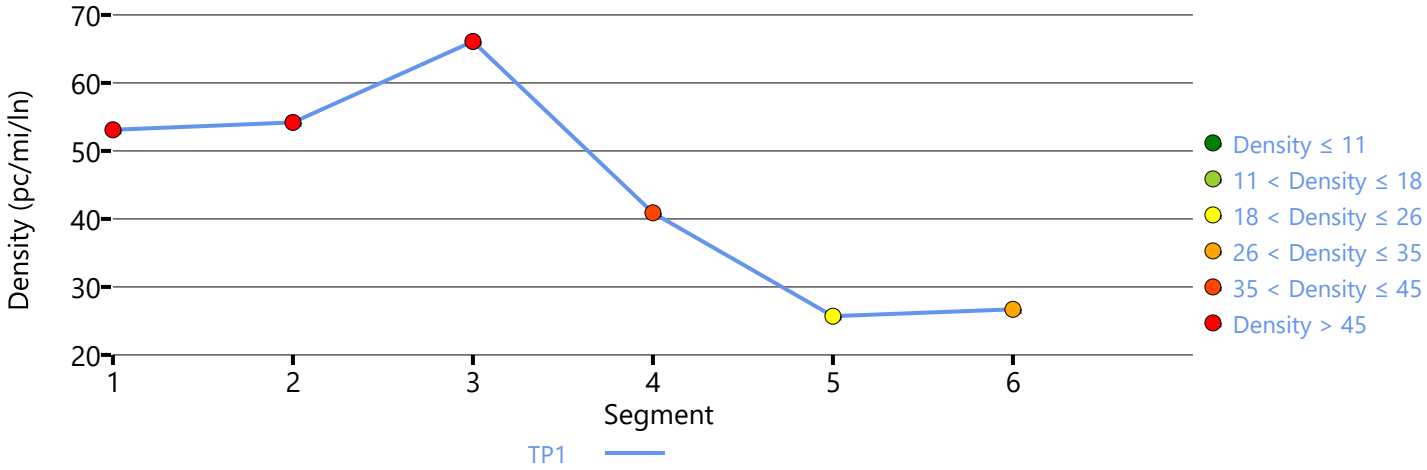
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) WP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1897	7098	0.27	66.6	9.5	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.962	1897	1059	7200	4000	0.26	0.26	62.5	57.9	10.1	13.6	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	811	4688	0.17	64.3	6.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.991	1040	229	4800	1900	0.22	0.12	65.5	65.5	7.9	8.9	A

2317

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	1.000	1136	84	4800	2000	0.24	0.04	66.1	66.1	8.6	9.4	A

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1142	4688	0.24	64.4	8.9	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.6	8.6	8.1	1.20	A

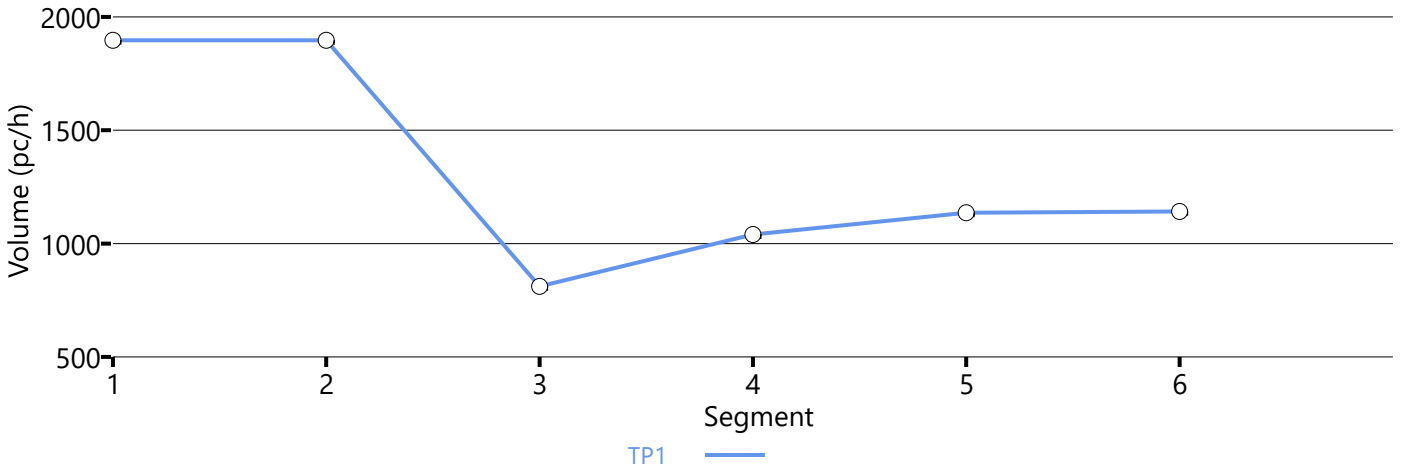
Facility Overall Results

Space Mean Speed, mi/h	64.6	Density, veh/mi/ln	8.1
Average Travel Time, min	1.20	Density, pc/mi/ln	8.6

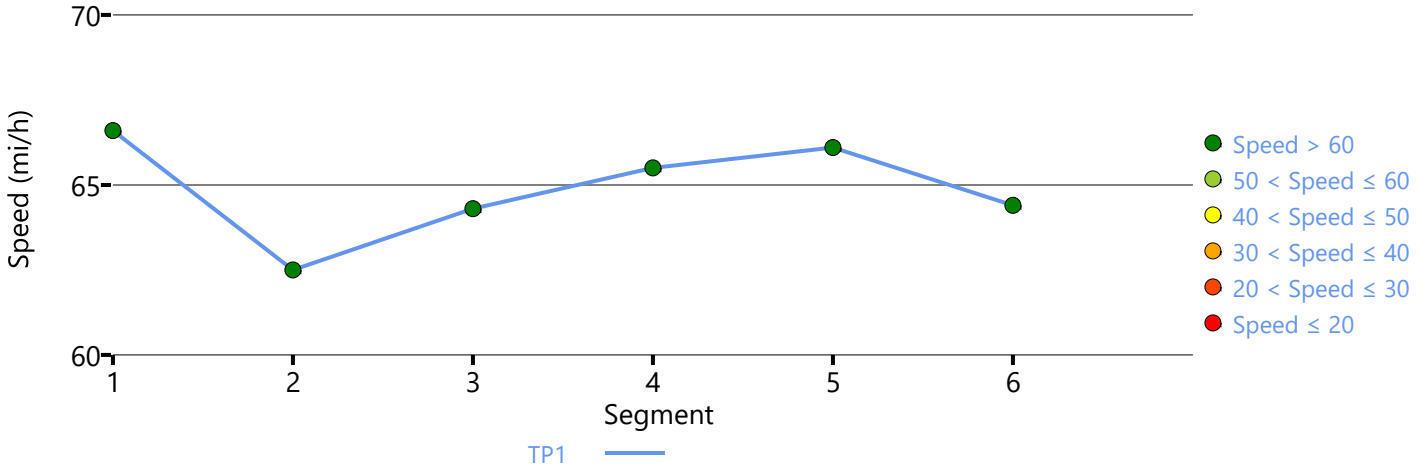
Messages

Comments

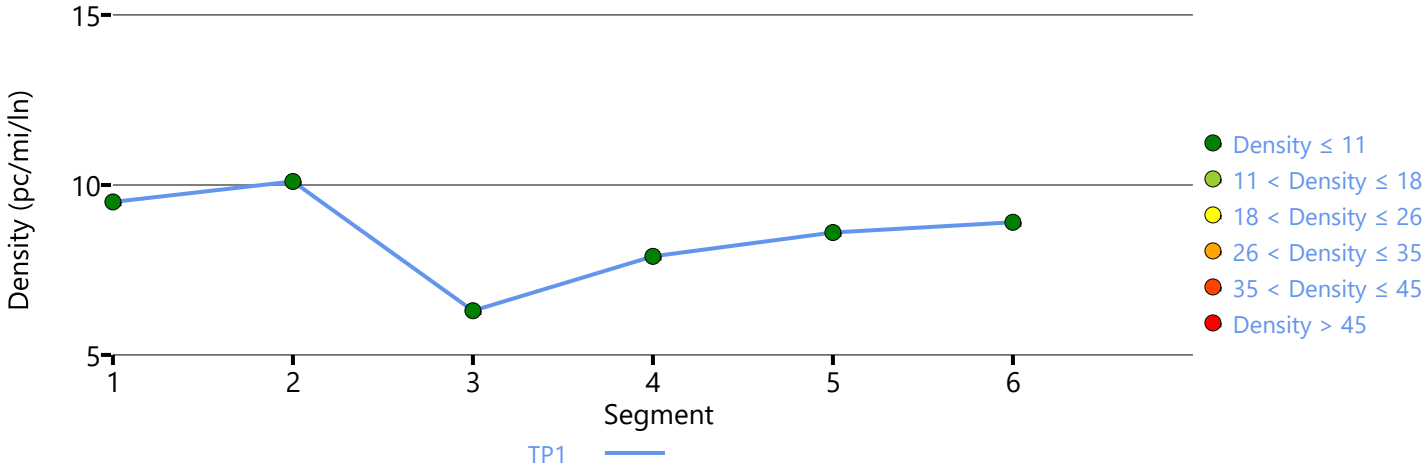
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) WP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4382	4716	0.93	56.5	38.8	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4382	850	4800	2000	0.91	0.43	58.5	58.5	37.5	38.2	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3481	4672	0.75	62.4	27.9	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.981	4186	705	4800	2000	0.87	0.35	57.4	57.4	36.5	34.5	D

2320

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.982	4750	532	7200	2000	0.66	0.27	71.4	-	22.2	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4775	7008	0.68	63.3	25.2	C

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.0	29.7	27.9	1.40	D

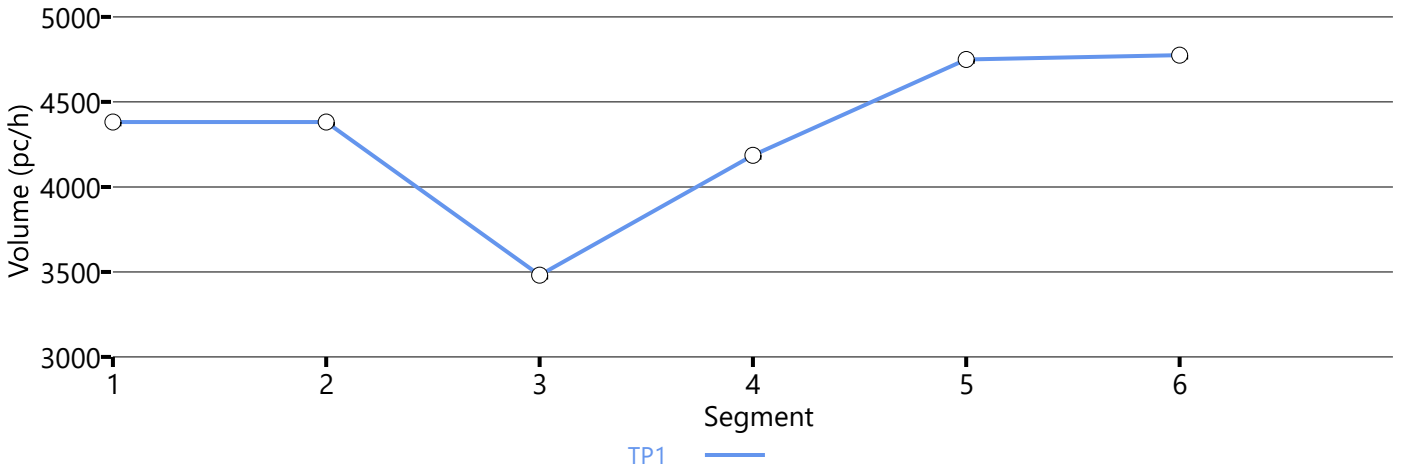
Facility Overall Results

Space Mean Speed, mi/h	62.0	Density, veh/mi/ln	27.9
Average Travel Time, min	1.40	Density, pc/mi/ln	29.7

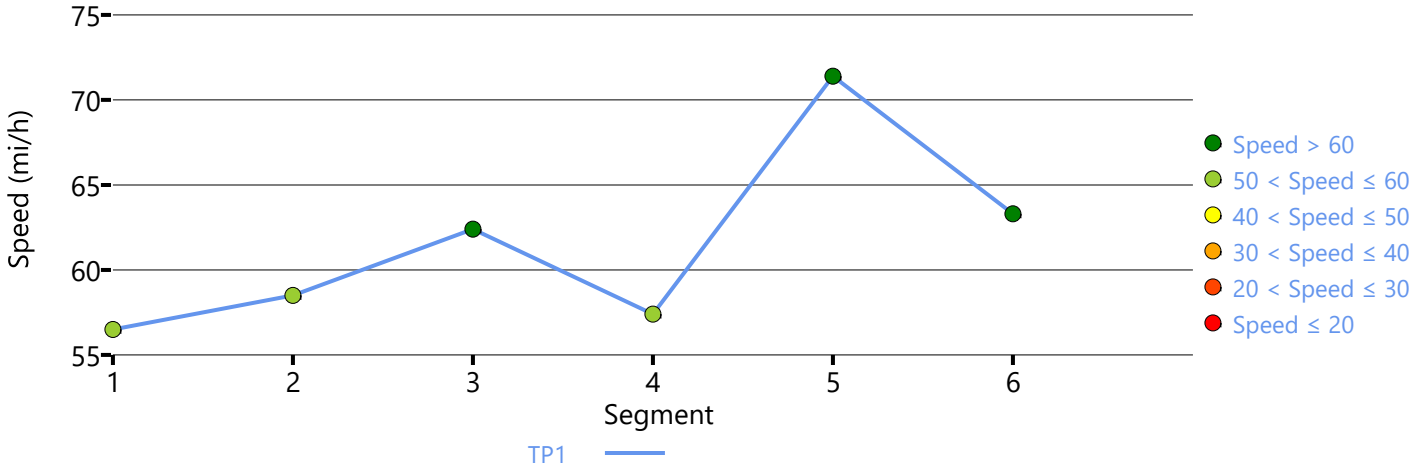
Messages

Comments

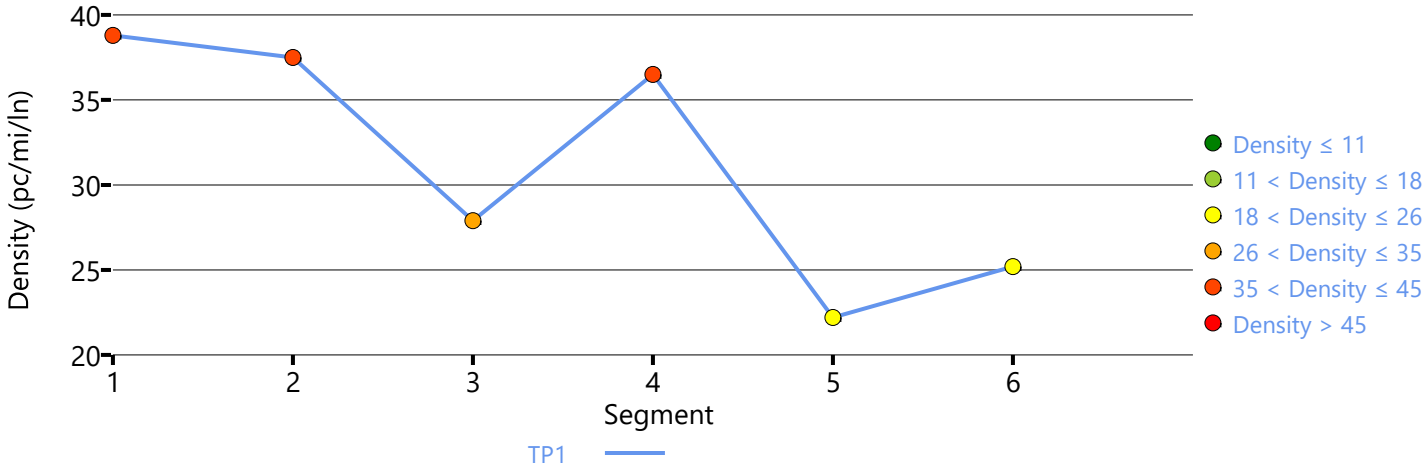
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) WP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5106	7098	0.72	64.8	26.3	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.990	5106	1352	7200	4000	0.71	0.34	64.1	57.0	26.6	27.4	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3679	4688	0.78	61.9	29.7	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	4066	387	4800	1900	0.85	0.20	58.3	58.3	34.9	32.4	D

2323

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4284	197	4800	2000	0.89	0.10	57.1	57.1	37.5	33.9	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4296	4688	0.92	56.8	37.8	E

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.1	30.5	28.7	1.30	D

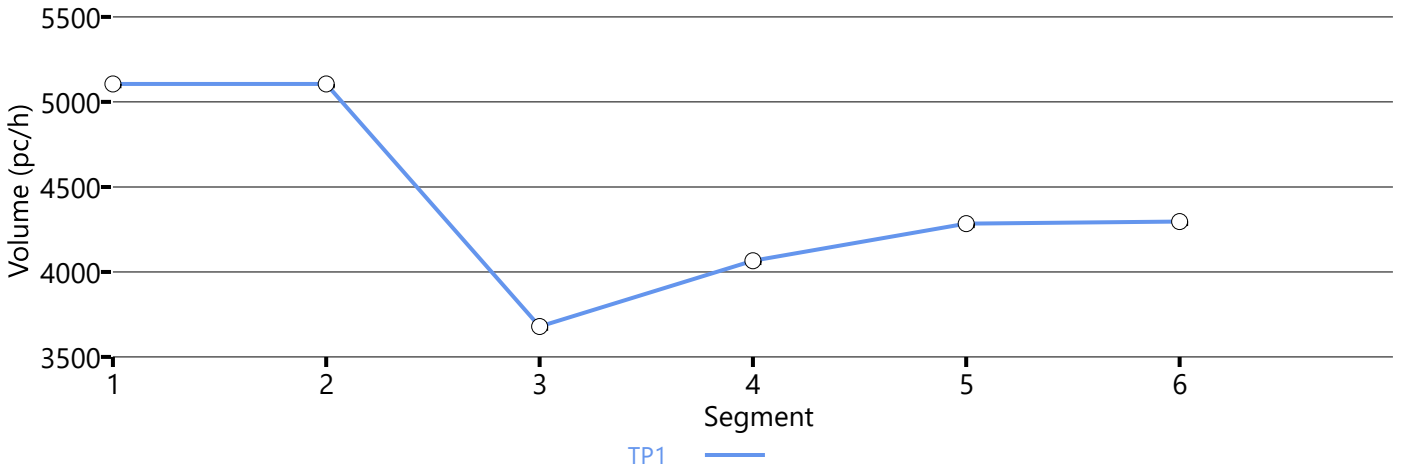
Facility Overall Results

Space Mean Speed, mi/h	61.1	Density, veh/mi/ln	28.7
Average Travel Time, min	1.30	Density, pc/mi/ln	30.5

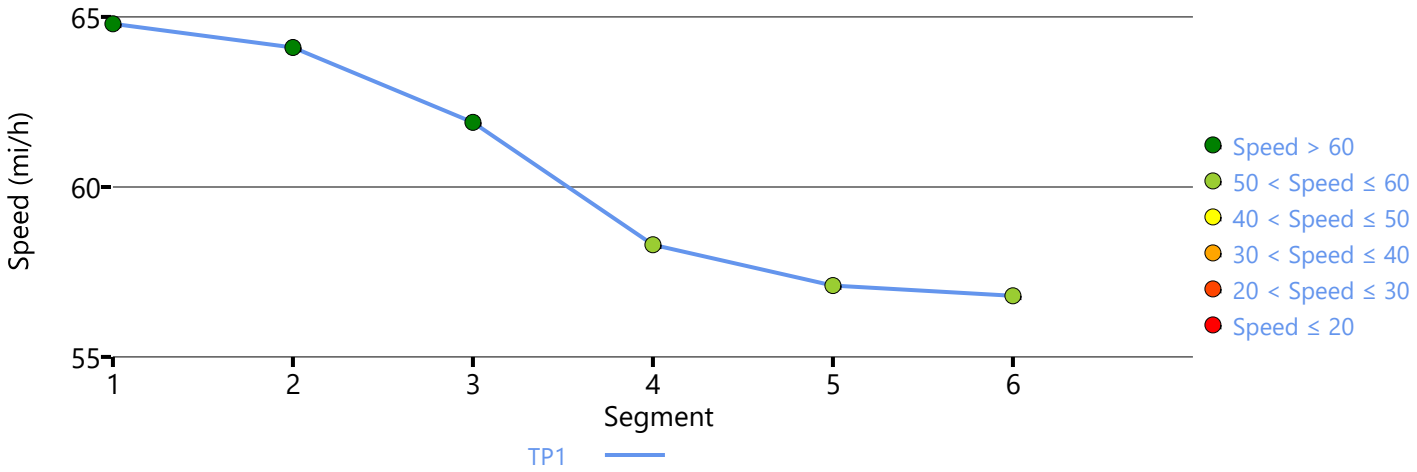
Messages

Comments

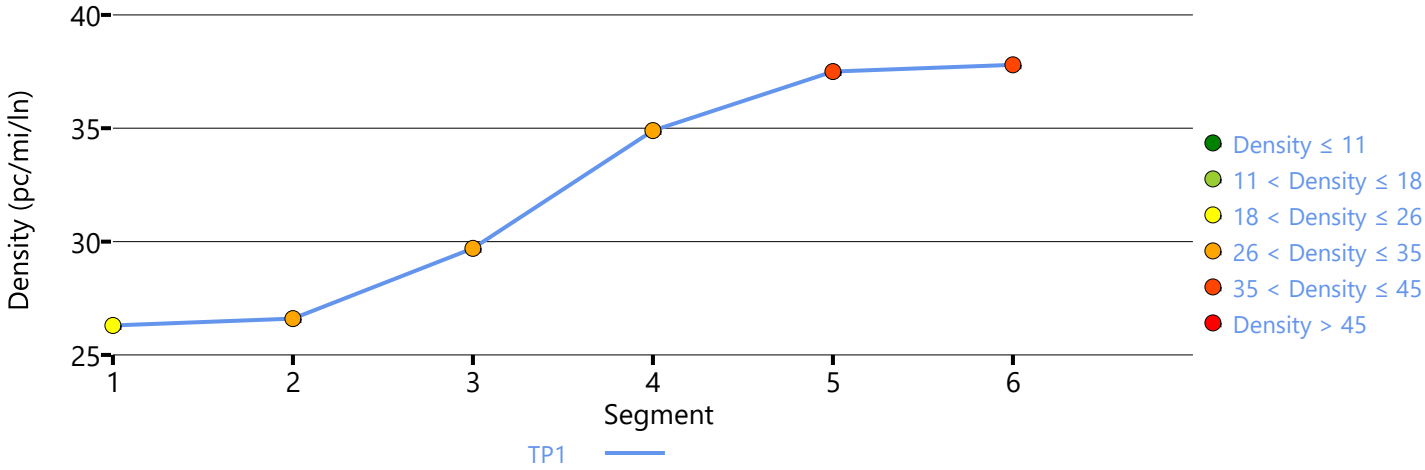
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Existing (2022) WP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4405	4716	1.01	40.4	54.6	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4356	436	4800	2000	0.99	0.22	39.0	59.8	55.8	41.5	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3833	4672	0.92	28.2	67.9	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.985	4470	637	4800	2000	1.03	0.32	54.6	54.6	40.9	36.8	F

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	5039	569	7200	2000	0.77	0.28	65.3	-	25.7	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5039	7008	0.80	62.8	26.7	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	44.2	43.8	41.0	1.90	F

Facility Overall Results

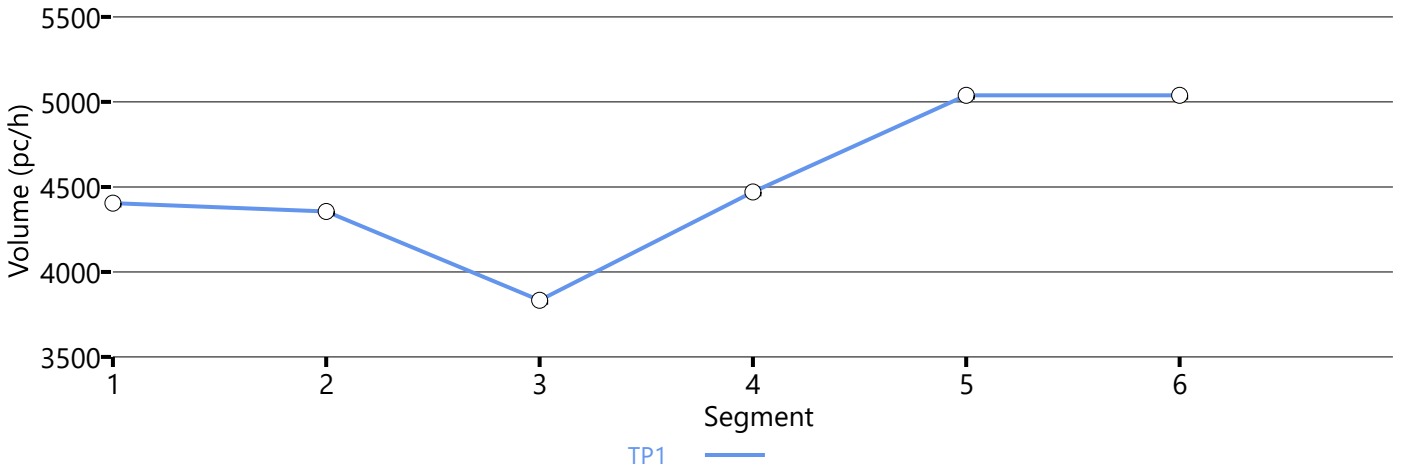
Space Mean Speed, mi/h	44.2	Density, veh/mi/ln	41.0
Average Travel Time, min	1.90	Density, pc/mi/ln	43.8

Messages

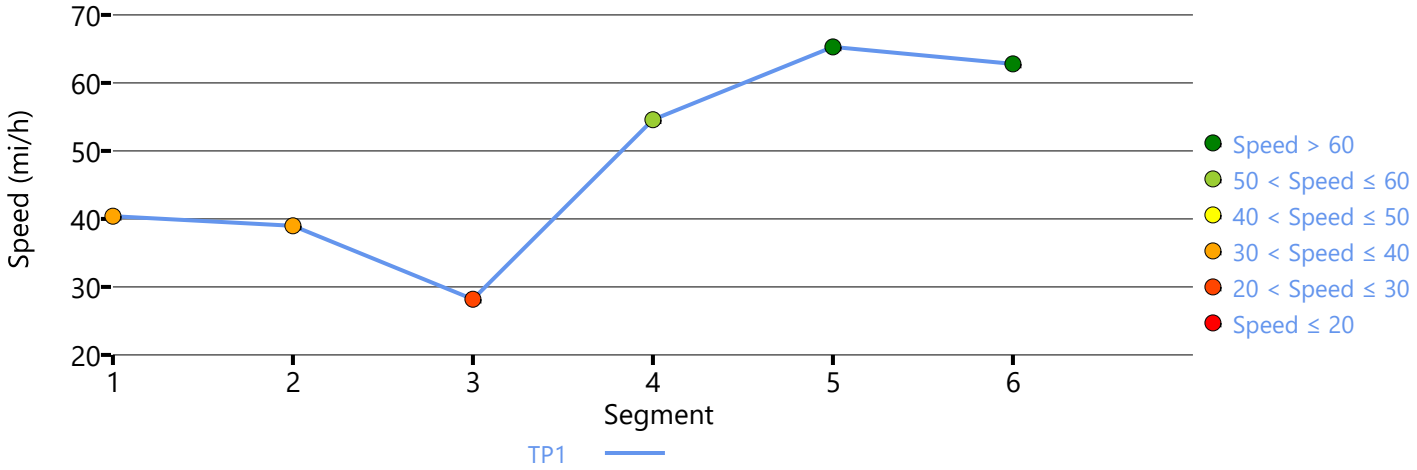
WARNING 1	Oversaturated conditions currently exist in boundary segment 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary time period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Queue extends past the beginning of the facility on time period 1. Consider expanding the length of the facility to account for these vehicles performance and affect on upstream segments.

Comments

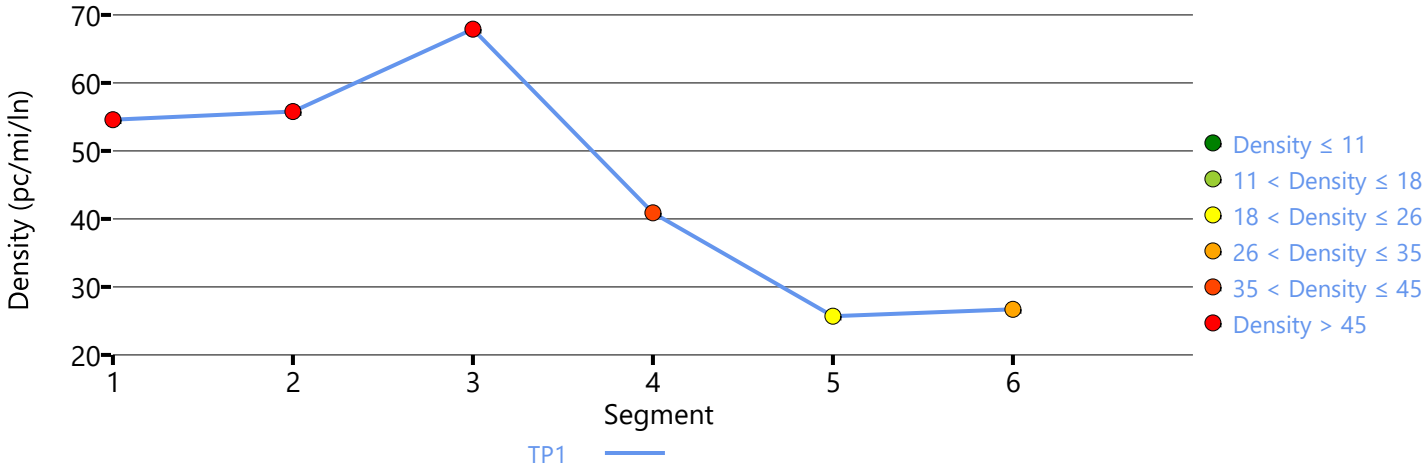
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Near Term Year (2026) NP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	2024	7098	0.29	66.6	10.1	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.962	2024	1146	7200	4000	0.28	0.29	62.2	57.7	10.8	14.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	849	4688	0.18	64.2	6.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.991	1088	239	4800	1900	0.23	0.13	65.5	65.5	8.3	9.3	A

2329

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	1.000	1190	88	4800	2000	0.25	0.04	66.1	66.1	9.0	9.8	A

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1197	4688	0.26	64.4	9.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.5	9.1	8.5	1.20	A

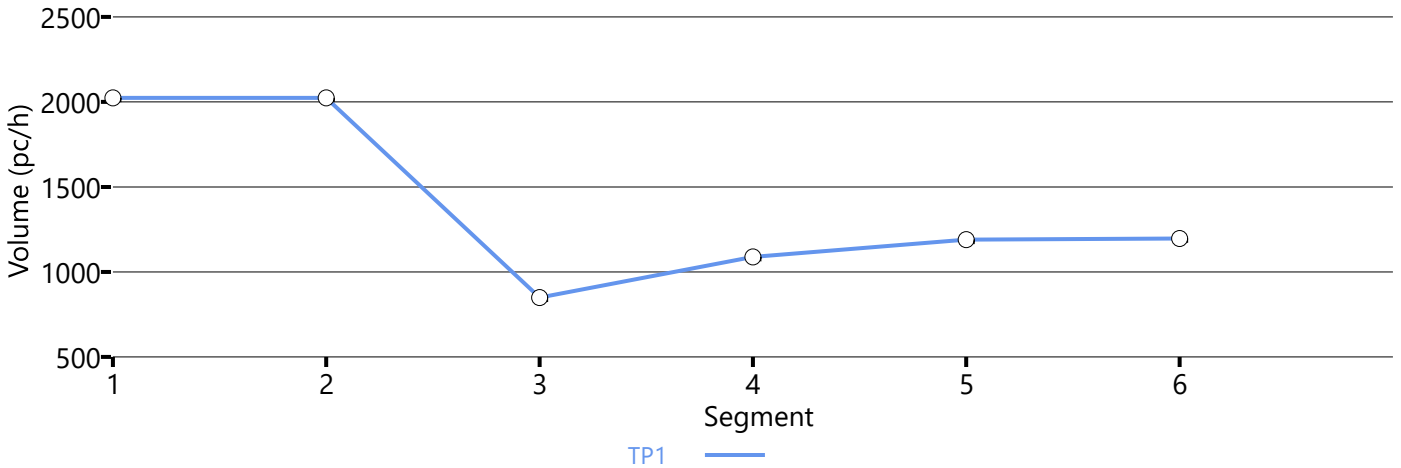
Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	8.5
Average Travel Time, min	1.20	Density, pc/mi/ln	9.1

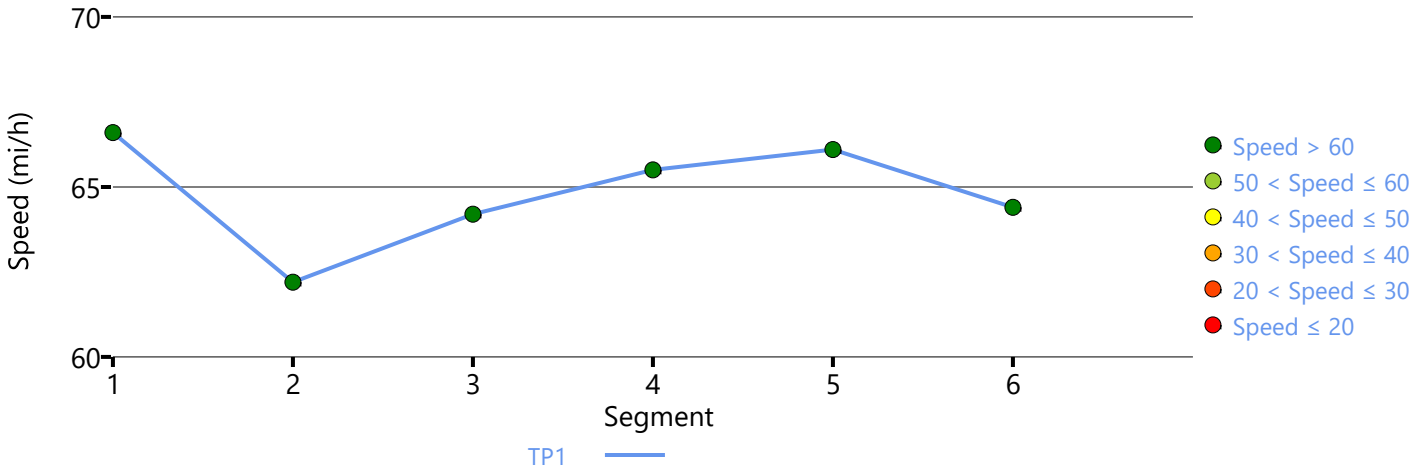
Messages

Comments

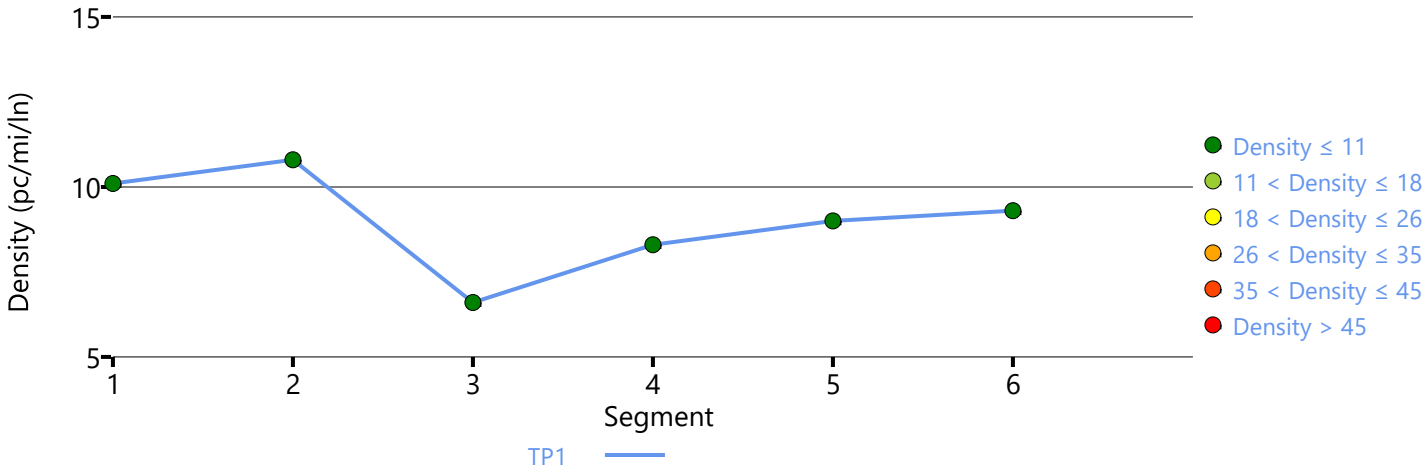
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Near Term (2026) NP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4463	4716	0.95	55.6	40.1	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4463	857	4800	2000	0.93	0.43	58.5	58.5	38.1	38.9	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3553	4672	0.76	62.1	28.6	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.981	4435	882	4800	2000	0.92	0.44	54.9	54.9	40.4	36.4	E

2332

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.982	5029	554	7200	2000	0.70	0.28	70.1	-	23.9	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5055	7008	0.72	62.8	26.8	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.0	31.4	29.4	1.40	D

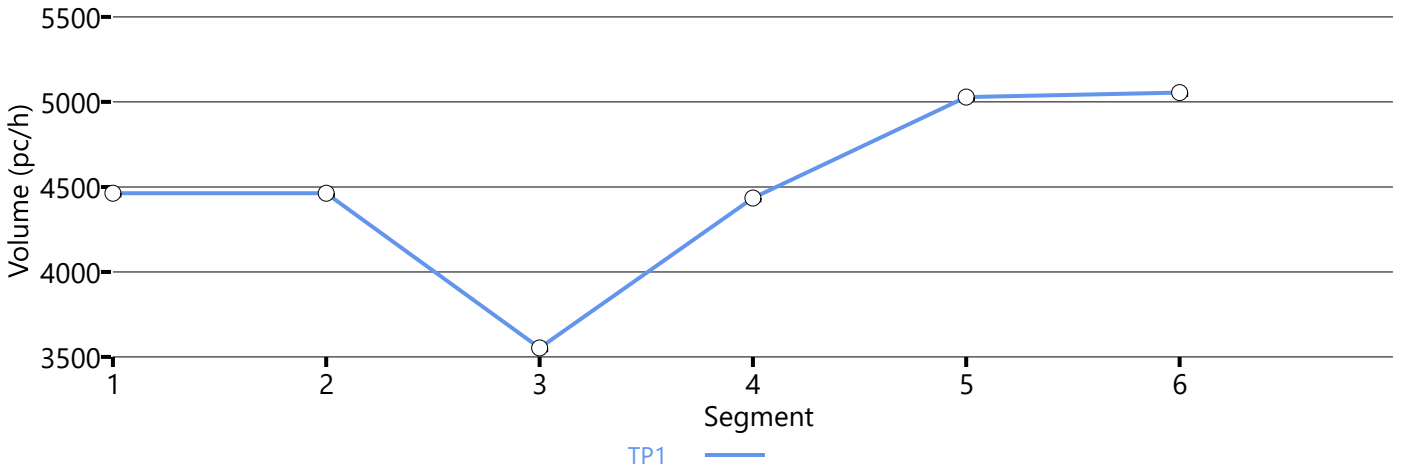
Facility Overall Results

Space Mean Speed, mi/h	61.0	Density, veh/mi/ln	29.4
Average Travel Time, min	1.40	Density, pc/mi/ln	31.4

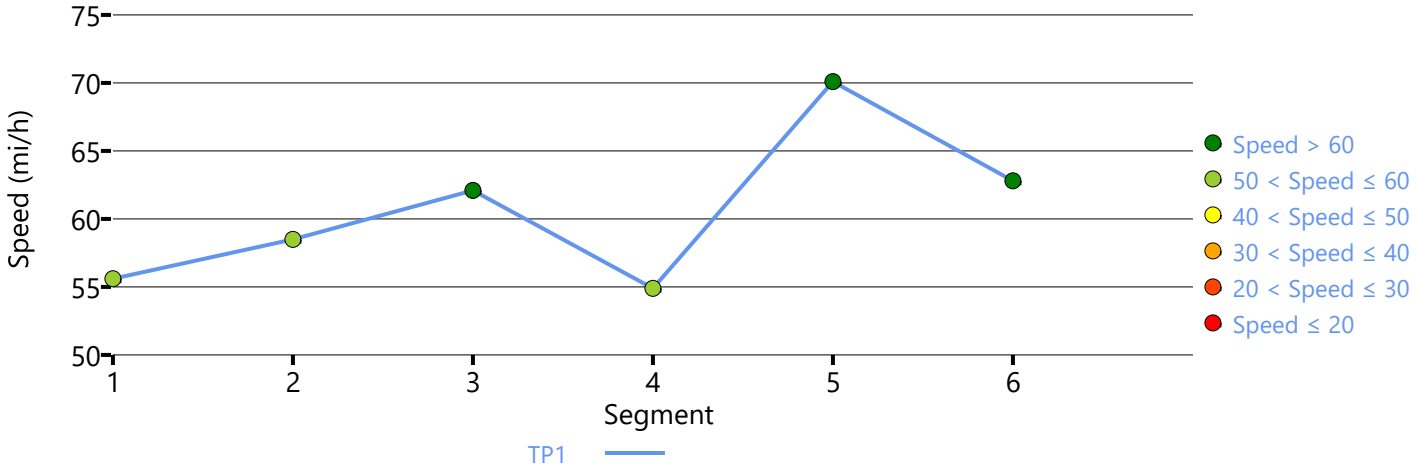
Messages

Comments

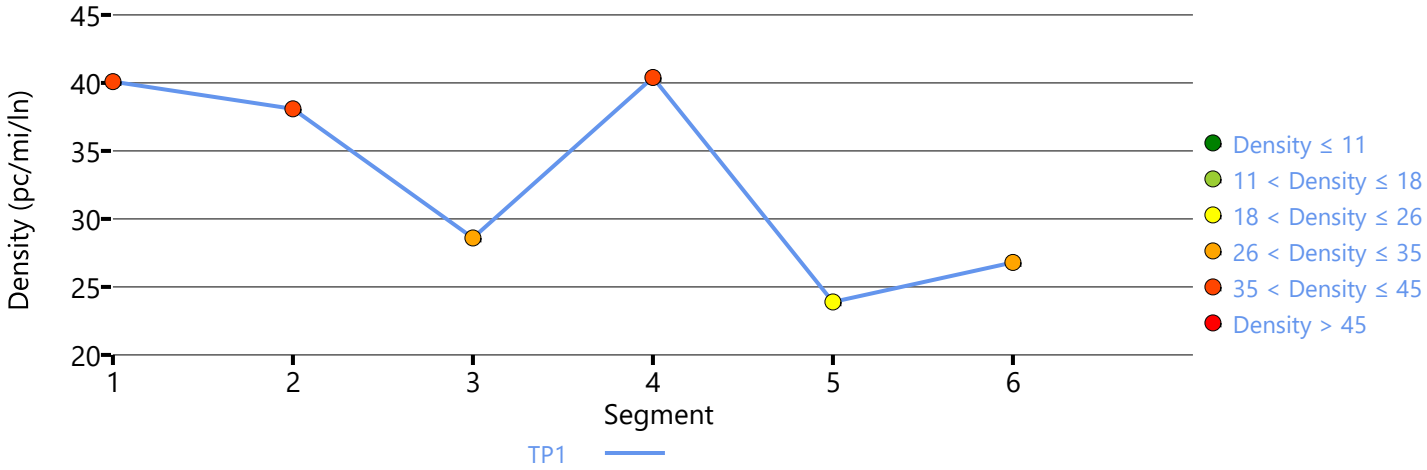
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Near Term (2026) NP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5376	7098	0.76	63.9	28.0	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.990	5376	1529	7200	4000	0.75	0.38	63.5	56.5	28.2	29.3	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3762	4688	0.80	61.4	30.6	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	4157	395	4800	1900	0.87	0.21	57.6	57.6	36.1	33.1	D

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4391	213	4800	2000	0.91	0.11	56.0	56.0	39.2	34.7	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4404	4688	0.94	55.6	39.6	E

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	60.4	32.0	30.0	1.30	D

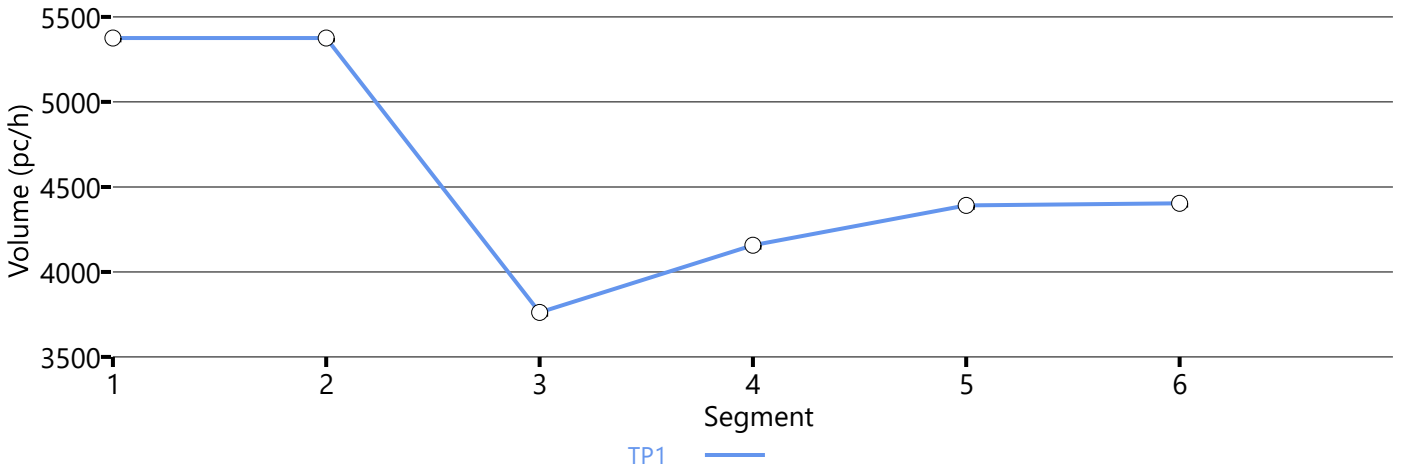
Facility Overall Results

Space Mean Speed, mi/h	60.4	Density, veh/mi/ln	30.0
Average Travel Time, min	1.30	Density, pc/mi/ln	32.0

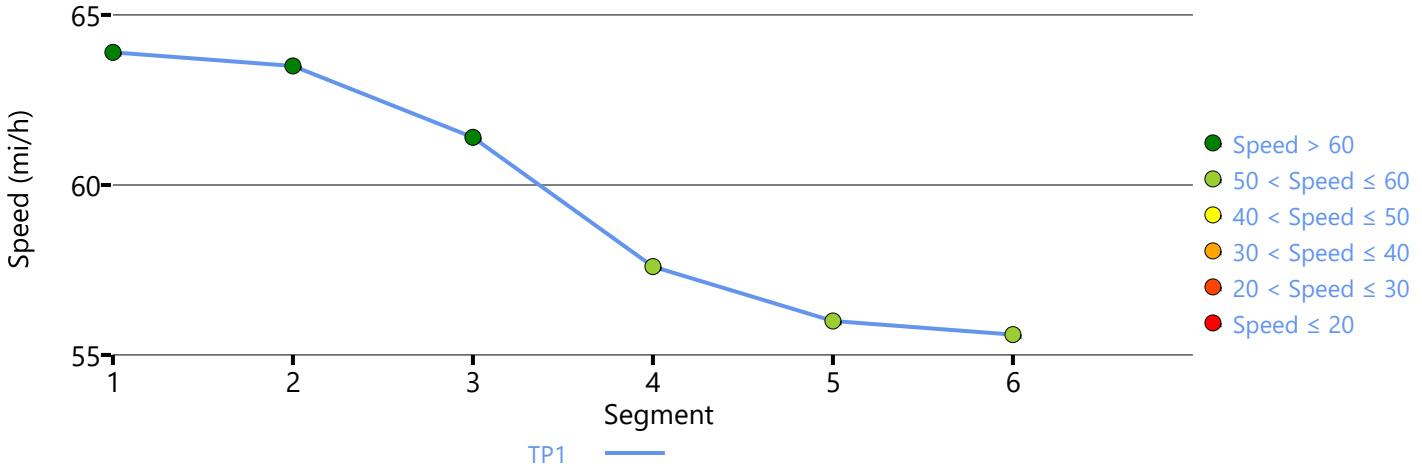
Messages

Comments

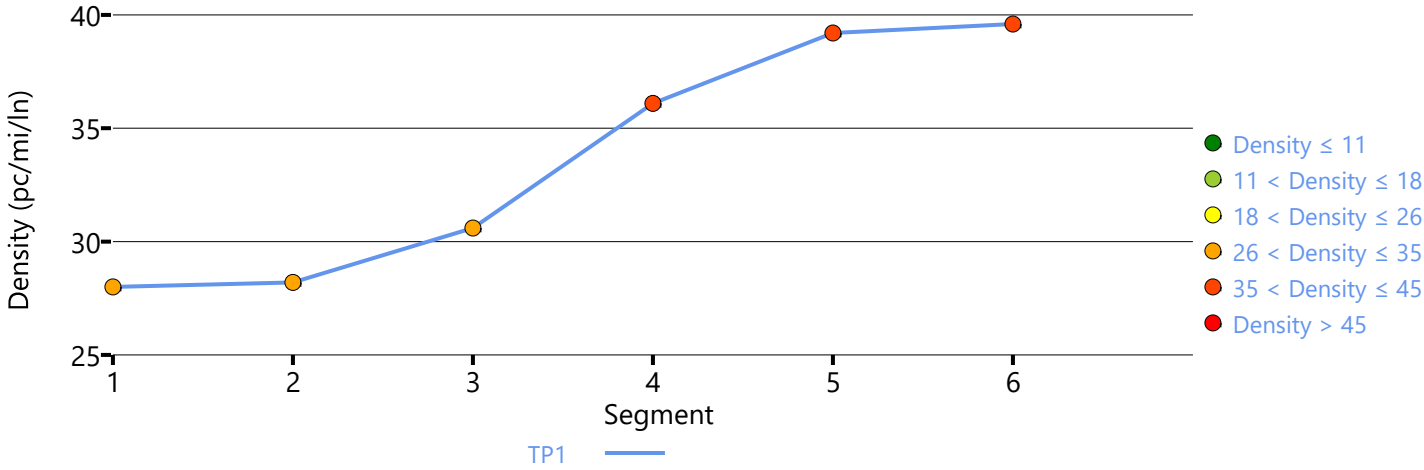
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Near Term (2026) NP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4284	4716	1.02	36.8	58.3	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4238	444	4800	2000	1.00	0.22	34.8	59.8	60.9	41.9	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3697	4672	0.93	25.6	72.3	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.985	4470	773	4800	2000	1.06	0.39	54.6	54.6	40.9	36.7	F

2338

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	5056	586	7200	2000	0.80	0.29	65.3	-	25.8	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5056	7008	0.82	62.8	26.8	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	45.8	42.9	2.00	F

Facility Overall Results

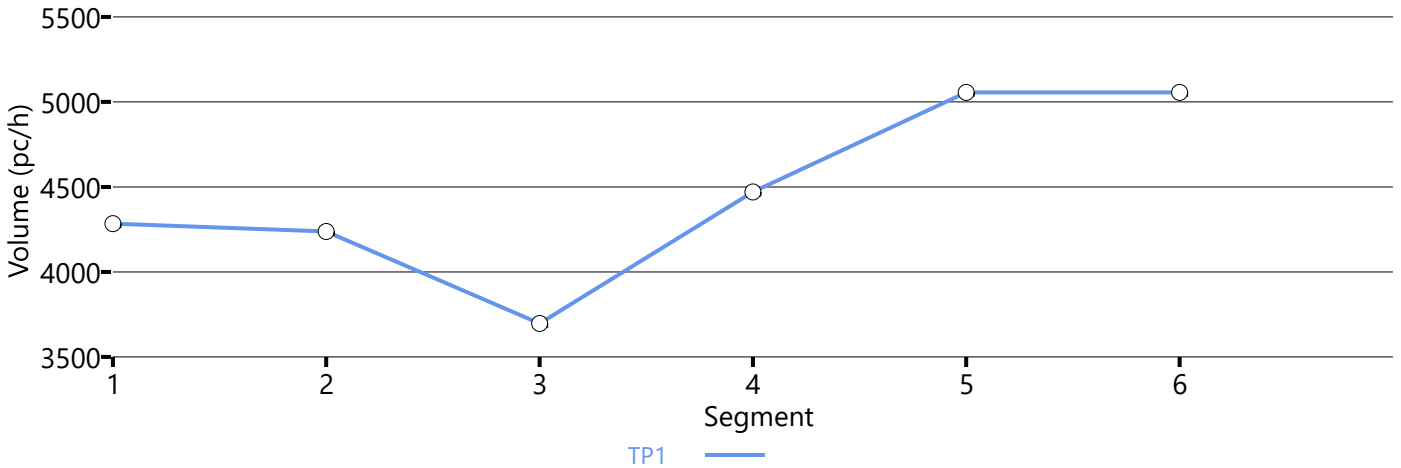
Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	42.9
Average Travel Time, min	2.00	Density, pc/mi/ln	45.8

Messages

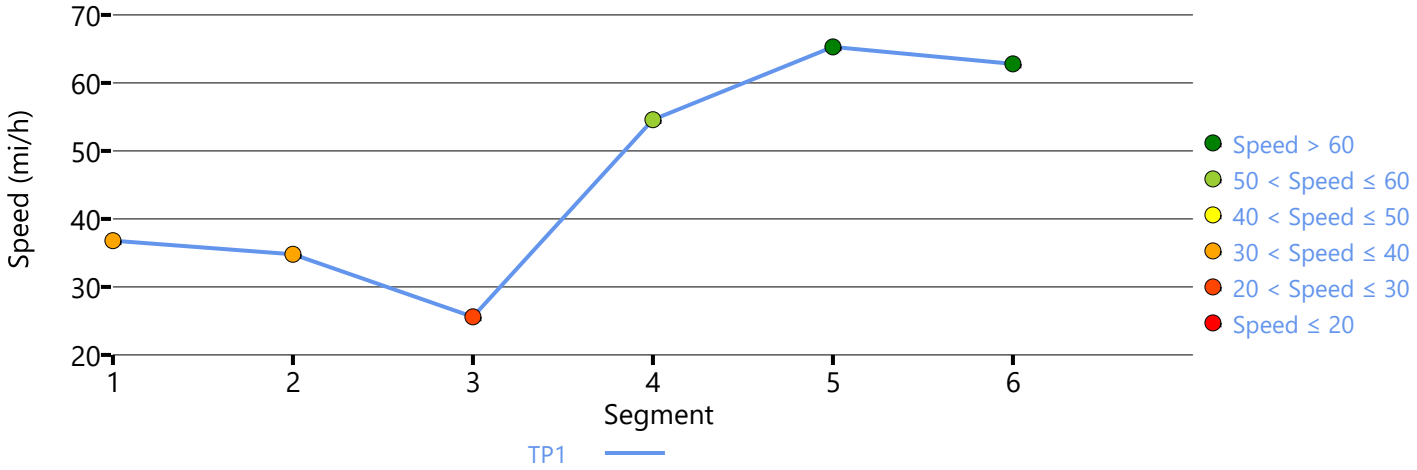
WARNING 1	Oversaturated conditions currently exist in boundary segment 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary time period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Queue extends past the beginning of the facility on time period 1. Consider expanding the length of the facility to account for these vehicles performance and affect on upstream segments.

Comments

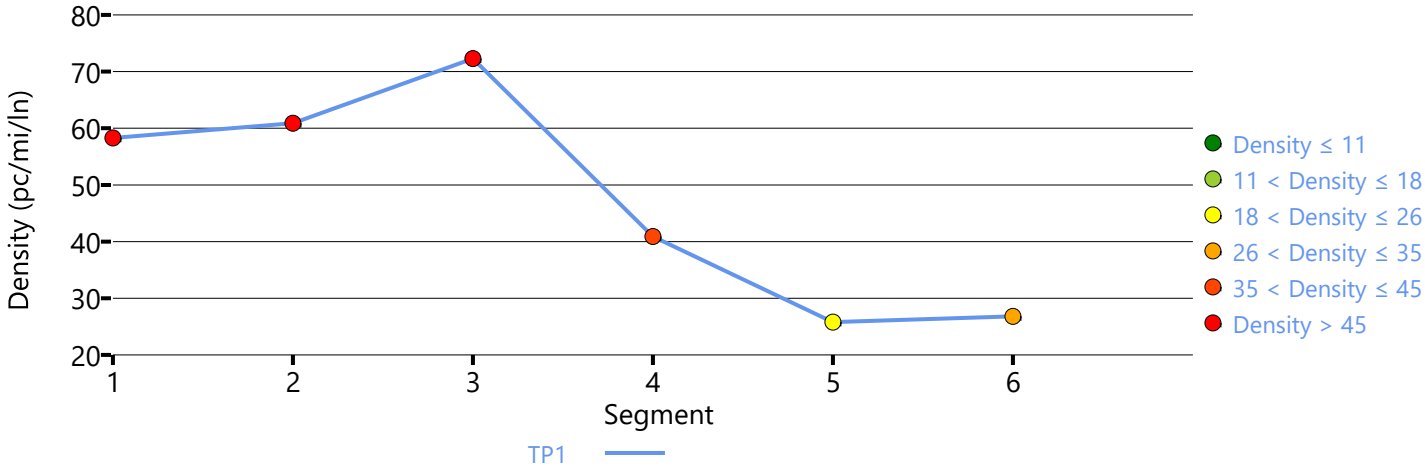
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Near Term (2026) WP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	2053	7098	0.29	66.6	10.3	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.962	2053	1173	7200	4000	0.29	0.29	62.0	57.6	11.0	14.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	849	4688	0.18	64.2	6.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.991	1088	239	4800	1900	0.23	0.13	65.5	65.5	8.3	9.3	A

2341

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	1.000	1190	88	4800	2000	0.25	0.04	66.1	66.1	9.0	9.8	A

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1197	4688	0.26	64.4	9.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.4	9.2	8.6	1.20	A

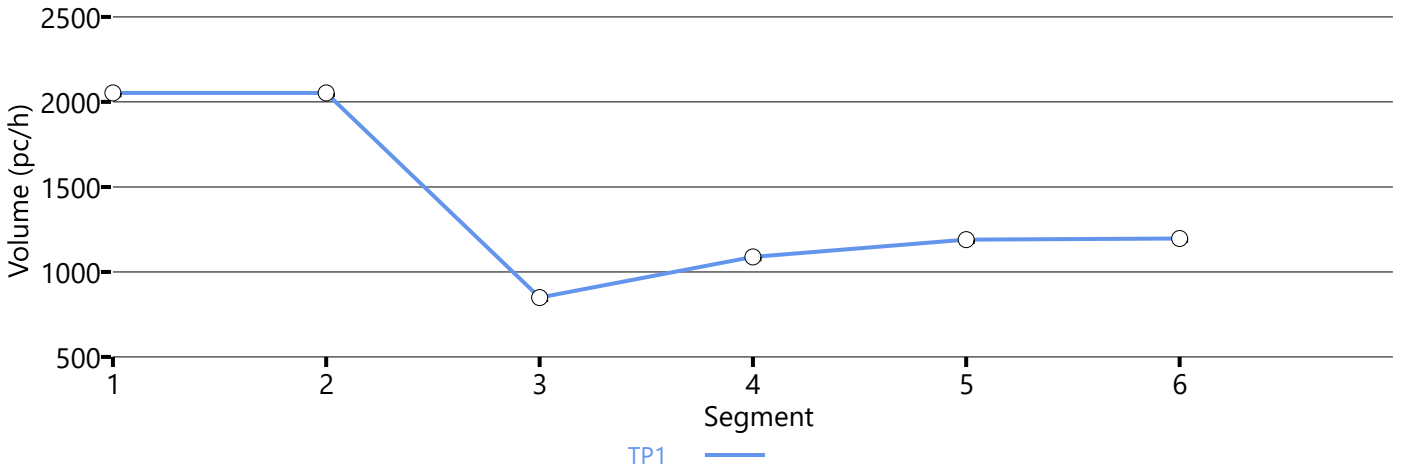
Facility Overall Results

Space Mean Speed, mi/h	64.4	Density, veh/mi/ln	8.6
Average Travel Time, min	1.20	Density, pc/mi/ln	9.2

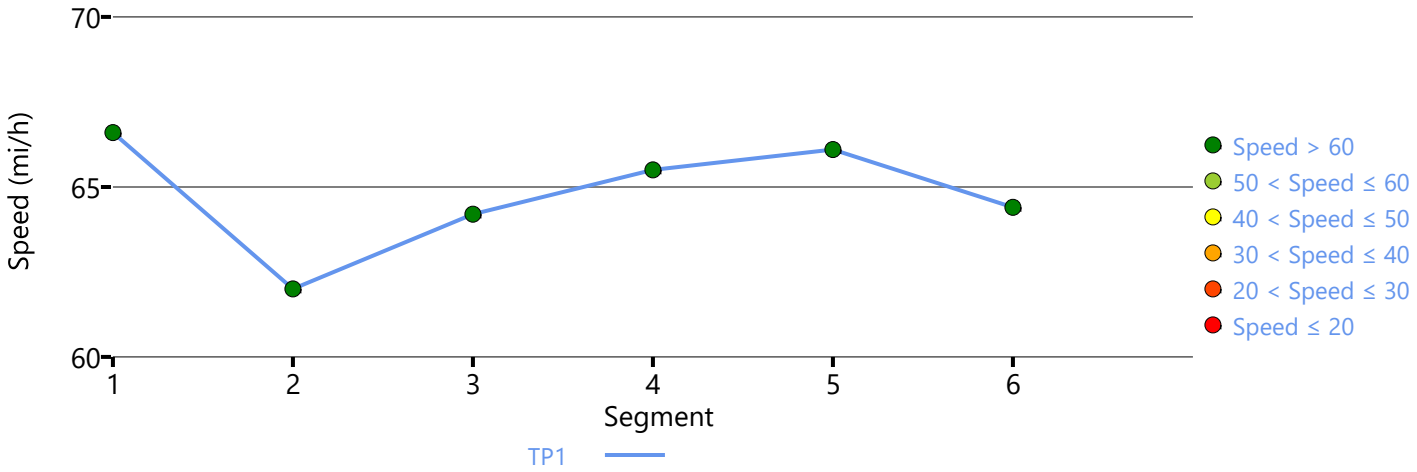
Messages

Comments

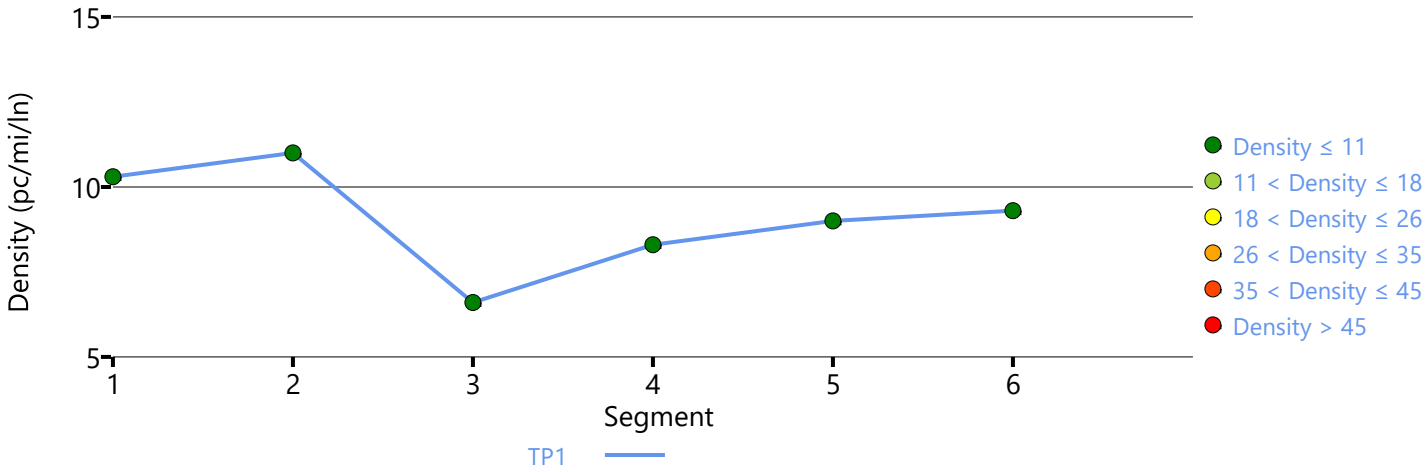
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Near Term (2026) WP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4463	4716	0.95	55.6	40.1	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4463	857	4800	2000	0.93	0.43	58.5	58.5	38.1	38.9	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3553	4672	0.76	62.1	28.6	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.981	4515	962	4800	2000	0.94	0.48	54.0	54.0	41.8	37.0	E

2344

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.982	5113	554	7200	2000	0.71	0.28	69.7	-	24.5	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5139	7008	0.73	62.6	27.4	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	60.7	31.8	29.9	1.40	D

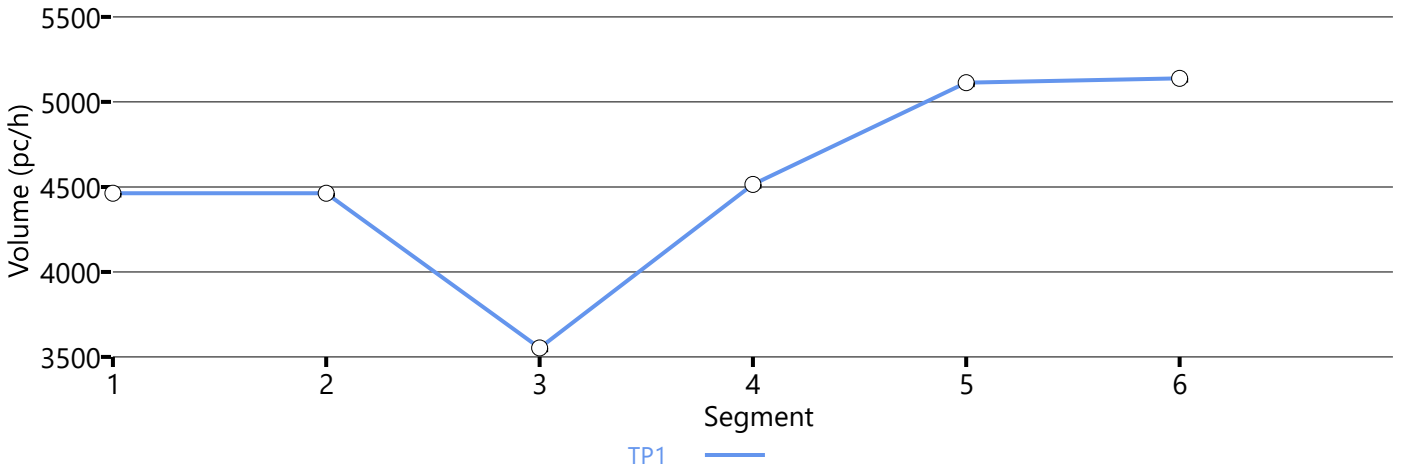
Facility Overall Results

Space Mean Speed, mi/h	60.7	Density, veh/mi/ln	29.9
Average Travel Time, min	1.40	Density, pc/mi/ln	31.8

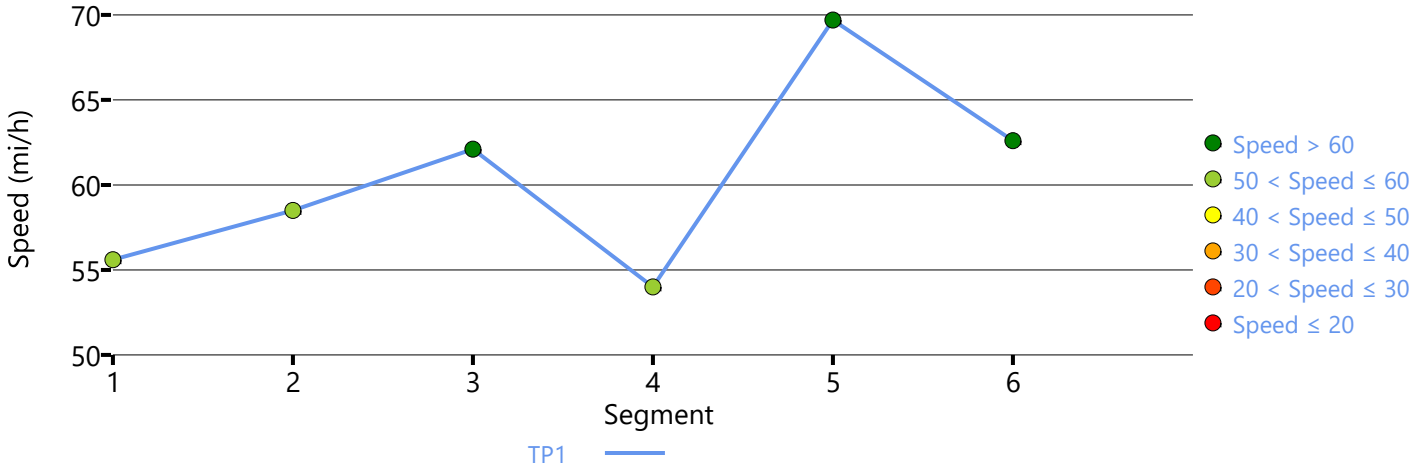
Messages

Comments

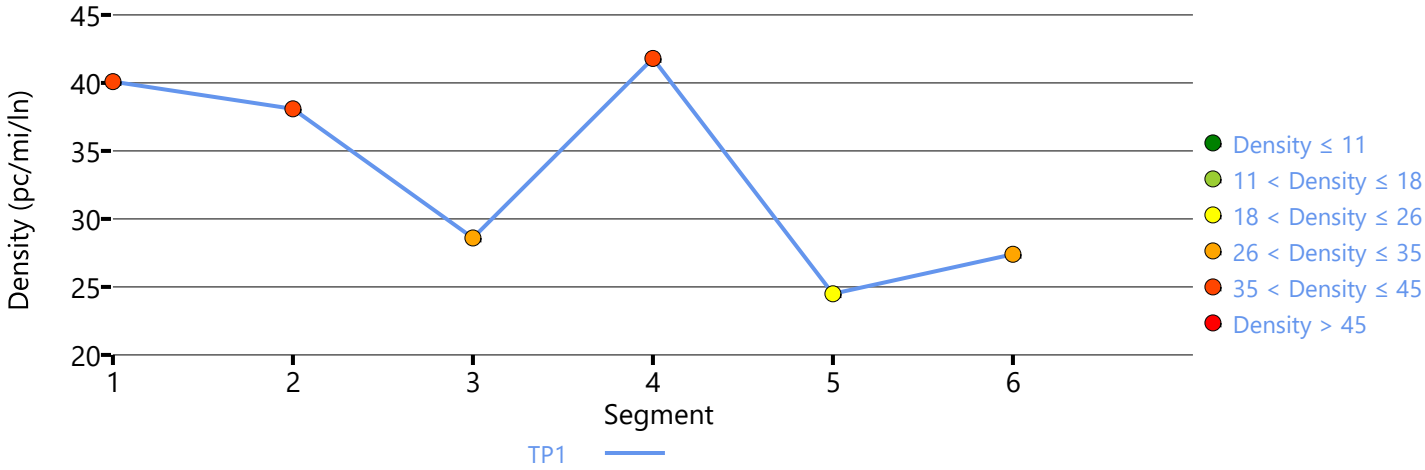
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Near Term (2026) WP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5471	7098	0.77	63.5	28.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.990	5471	1619	7200	4000	0.76	0.40	63.1	56.2	28.9	30.1	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3762	4688	0.80	61.4	30.6	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	4157	395	4800	1900	0.87	0.21	57.6	57.6	36.1	33.1	D

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4391	213	4800	2000	0.91	0.11	56.0	56.0	39.2	34.7	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4404	4688	0.94	55.6	39.6	E

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	60.2	32.3	30.3	1.30	D

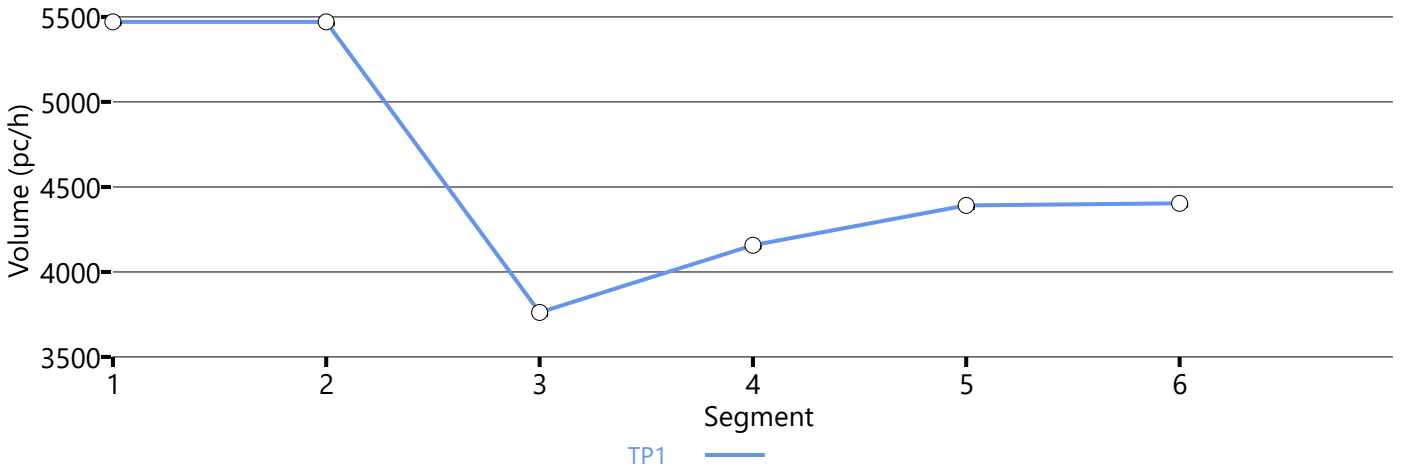
Facility Overall Results

Space Mean Speed, mi/h	60.2	Density, veh/mi/ln	30.3
Average Travel Time, min	1.30	Density, pc/mi/ln	32.3

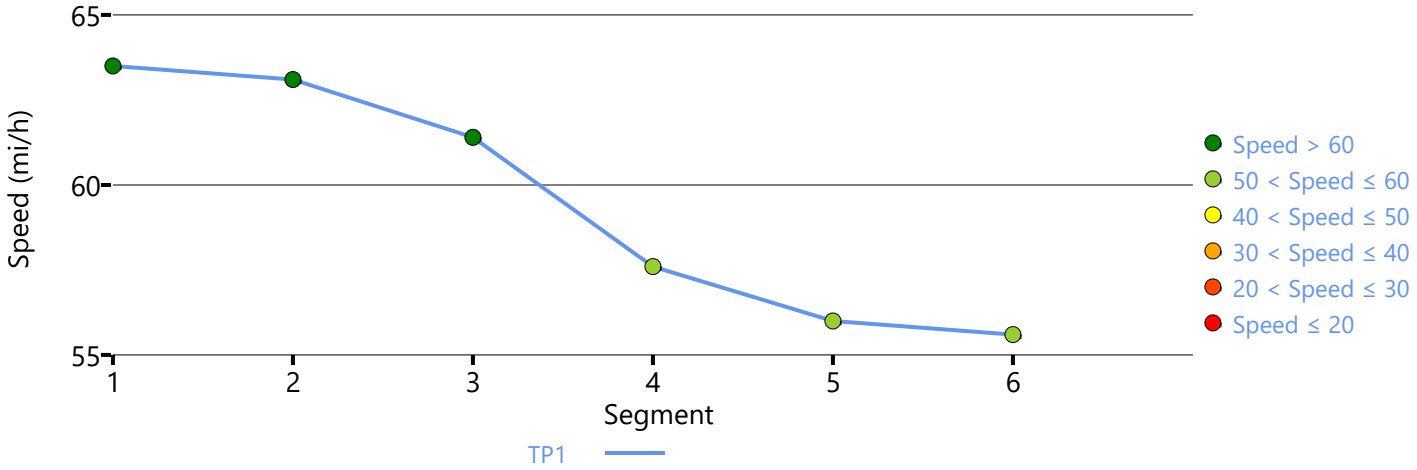
Messages

Comments

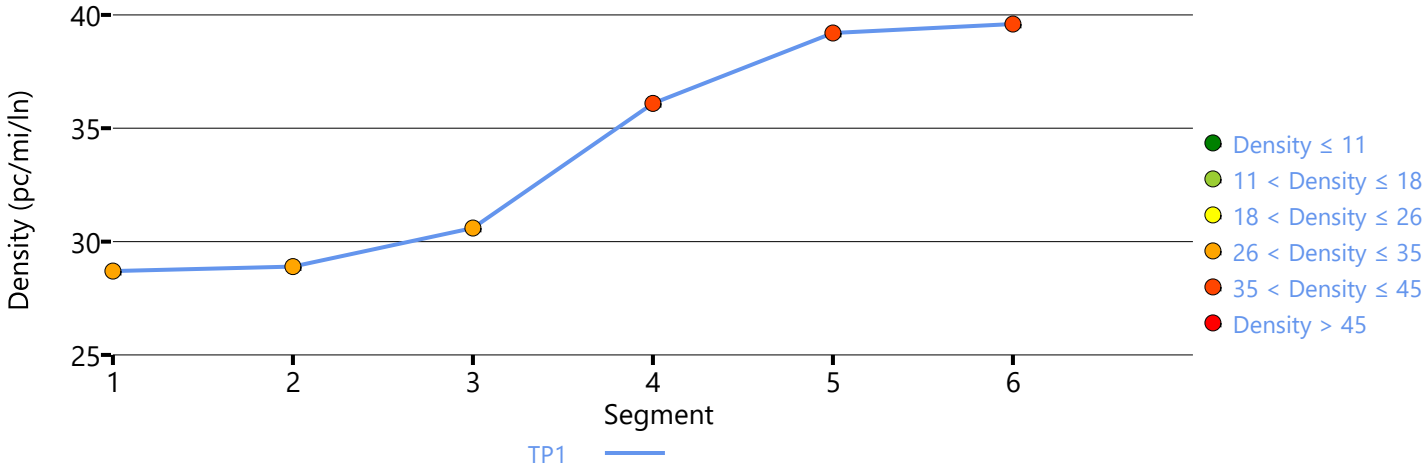
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Near Term (2026) WP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4238	4716	1.02	35.5	59.7	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4189	444	4800	2000	1.00	0.22	33.6	59.8	62.4	41.9	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3643	4672	0.93	24.6	74.0	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	2350
1	0.94	0.94	0.938	0.985	4470	827	4800	2000	1.08	0.41	54.6	54.6	40.9	36.7	F

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	5056	586	7200	2000	0.80	0.29	65.3	-	25.8	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5056	7008	0.83	62.8	26.8	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	40.9	46.4	43.6	2.00	F

Facility Overall Results

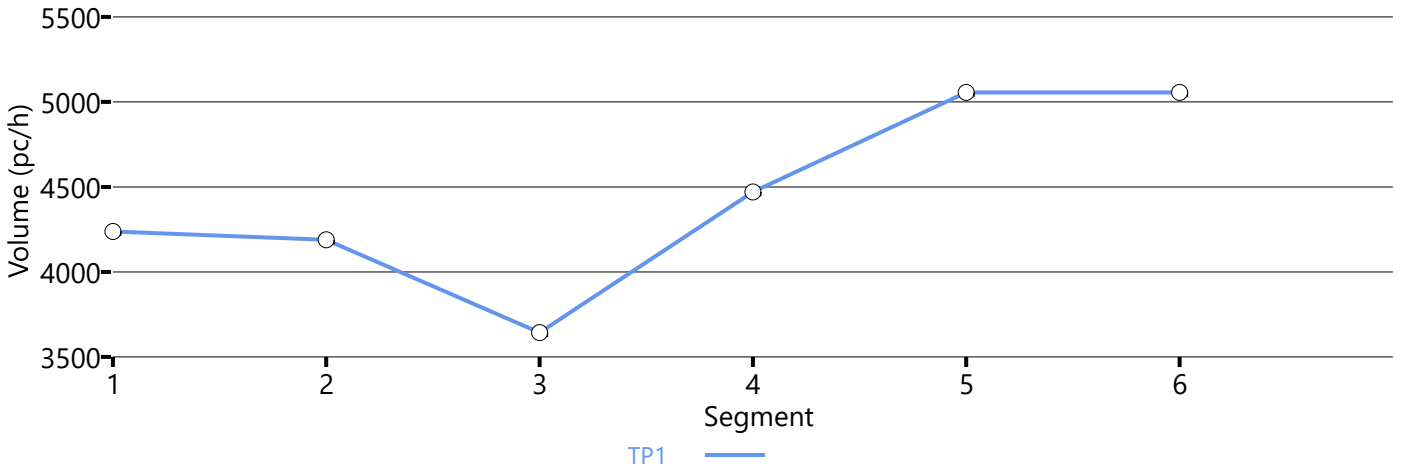
Space Mean Speed, mi/h	40.9	Density, veh/mi/ln	43.6
Average Travel Time, min	2.00	Density, pc/mi/ln	46.4

Messages

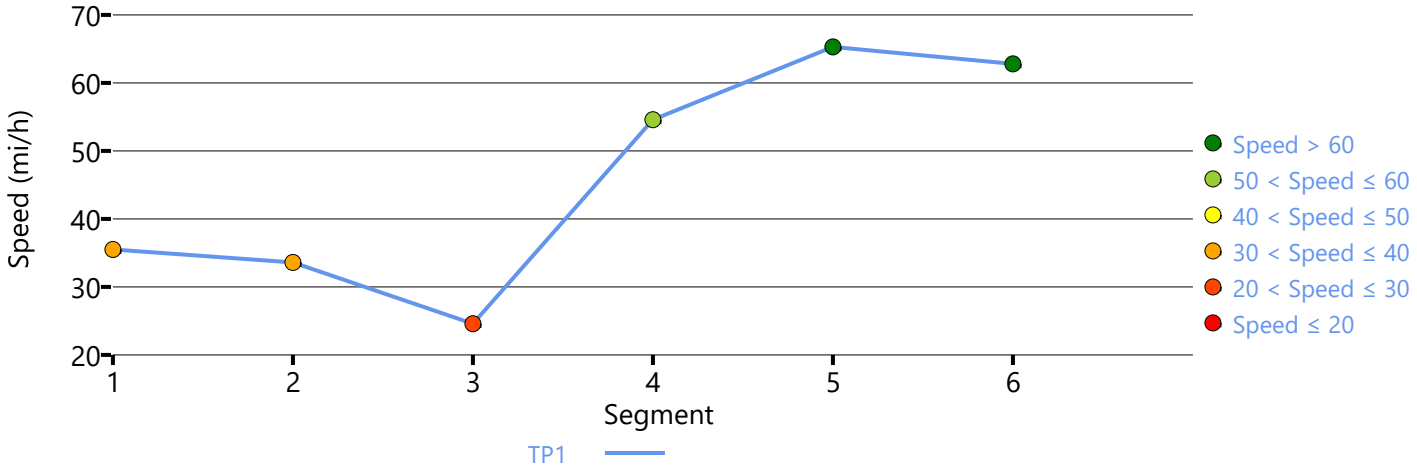
WARNING 1	Oversaturated conditions currently exist in boundary segment 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary time period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Queue extends past the beginning of the facility on time period 1. Consider expanding the length of the facility to account for these vehicles performance and affect on upstream segments.

Comments

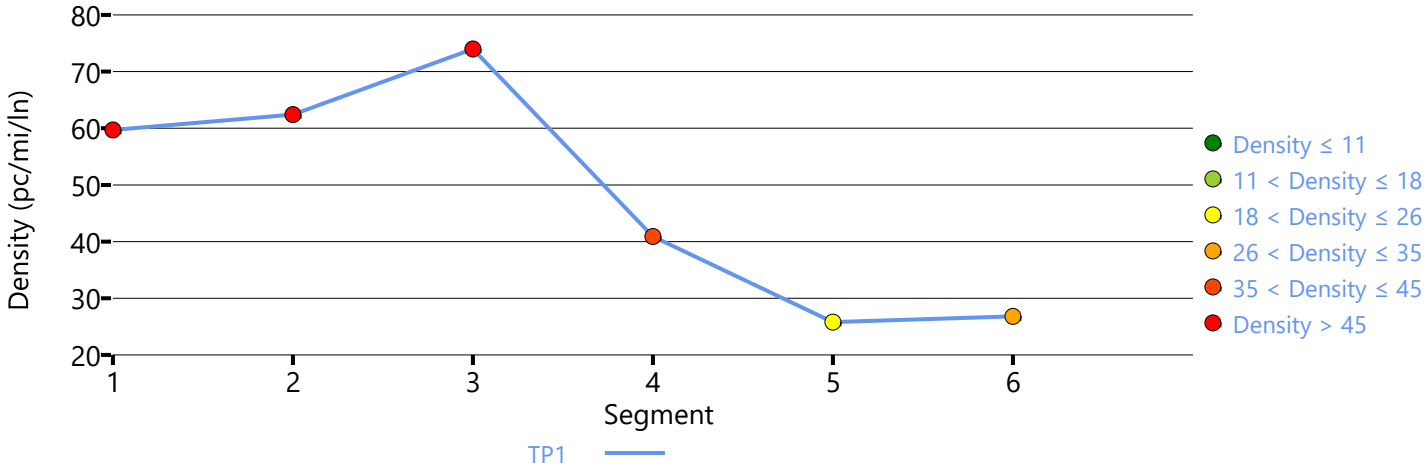
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Cumulative (2046) NP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	2122	7098	0.30	66.6	10.6	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.962	2122	1205	7200	4000	0.29	0.30	62.0	57.5	11.4	15.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	886	4688	0.19	64.2	6.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.991	1137	251	4800	1900	0.24	0.13	65.5	65.5	8.7	9.6	A

2353

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	1.000	1250	99	4800	2000	0.26	0.05	66.1	66.1	9.5	10.3	B

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1257	4688	0.27	64.4	9.8	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.4	9.6	9.0	1.20	A

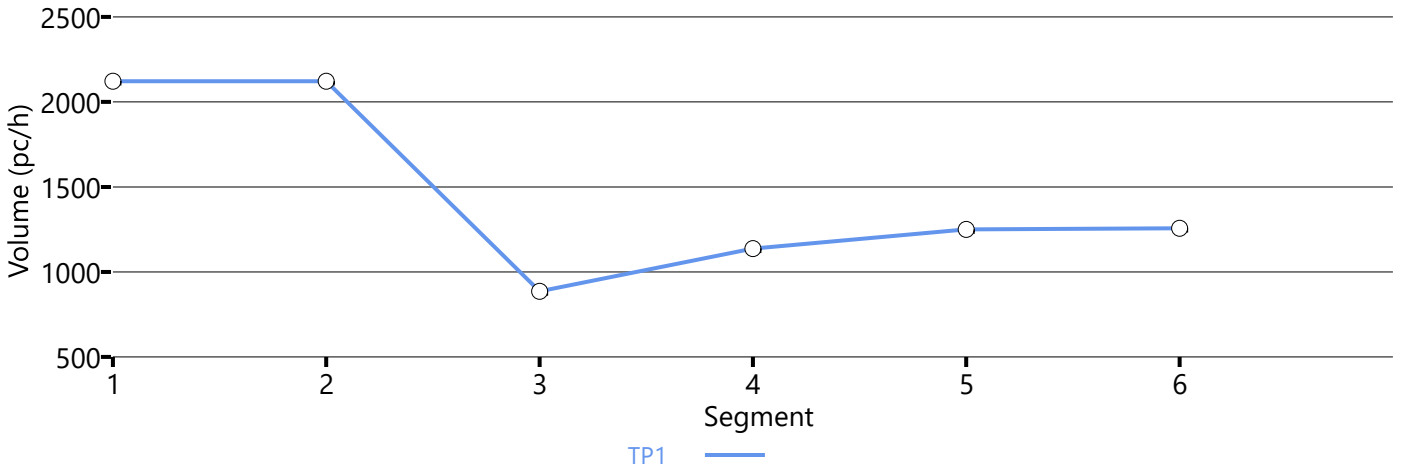
Facility Overall Results

Space Mean Speed, mi/h	64.4	Density, veh/mi/ln	9.0
Average Travel Time, min	1.20	Density, pc/mi/ln	9.6

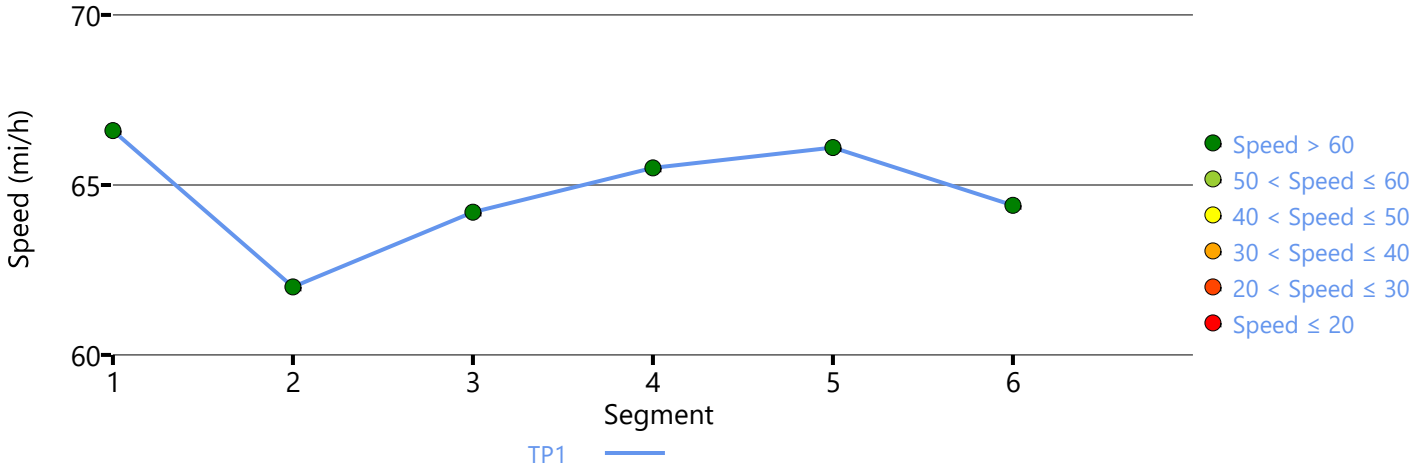
Messages

Comments

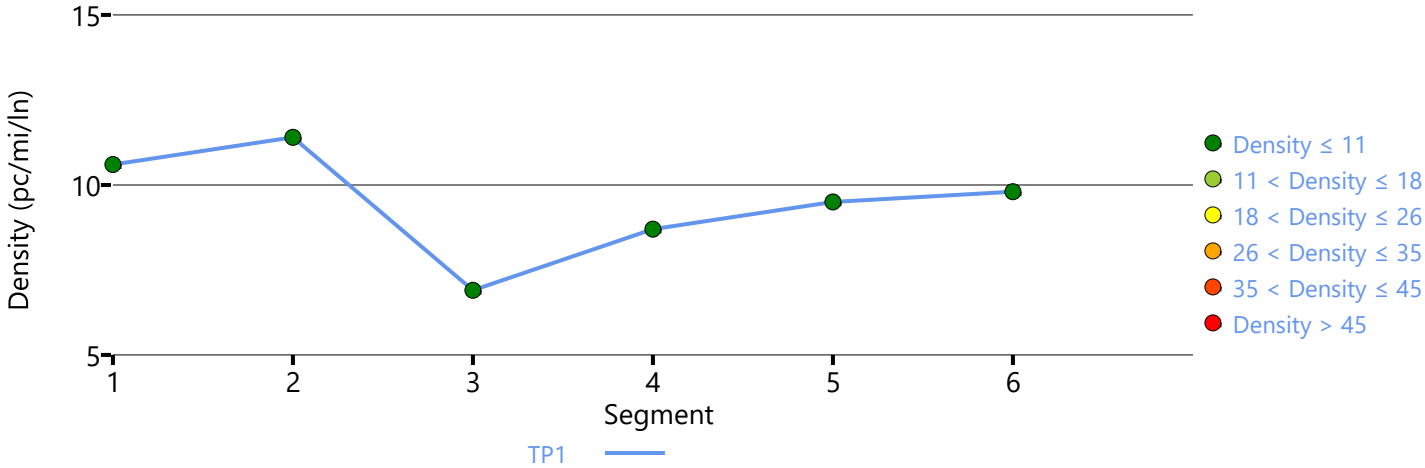
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Cumulative (2046) NP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4255	4716	0.90	57.9	36.8	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4255	925	4800	2000	0.89	0.46	58.3	58.3	36.5	37.1	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3274	4672	0.70	63.1	25.9	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.981	4206	932	4800	2000	0.88	0.47	57.2	57.2	36.8	34.6	D

2356

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.982	5223	974	7200	2000	0.73	0.49	69.1	-	25.2	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5268	7008	0.75	62.2	28.2	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.8	30.3	28.4	1.40	D

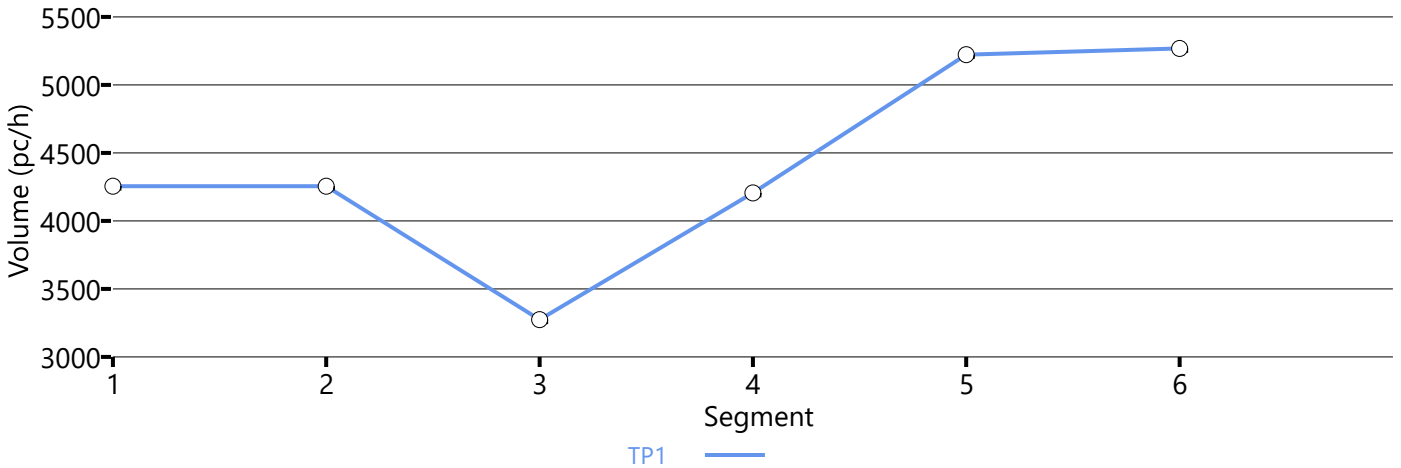
Facility Overall Results

Space Mean Speed, mi/h	61.8	Density, veh/mi/ln	28.4
Average Travel Time, min	1.40	Density, pc/mi/ln	30.3

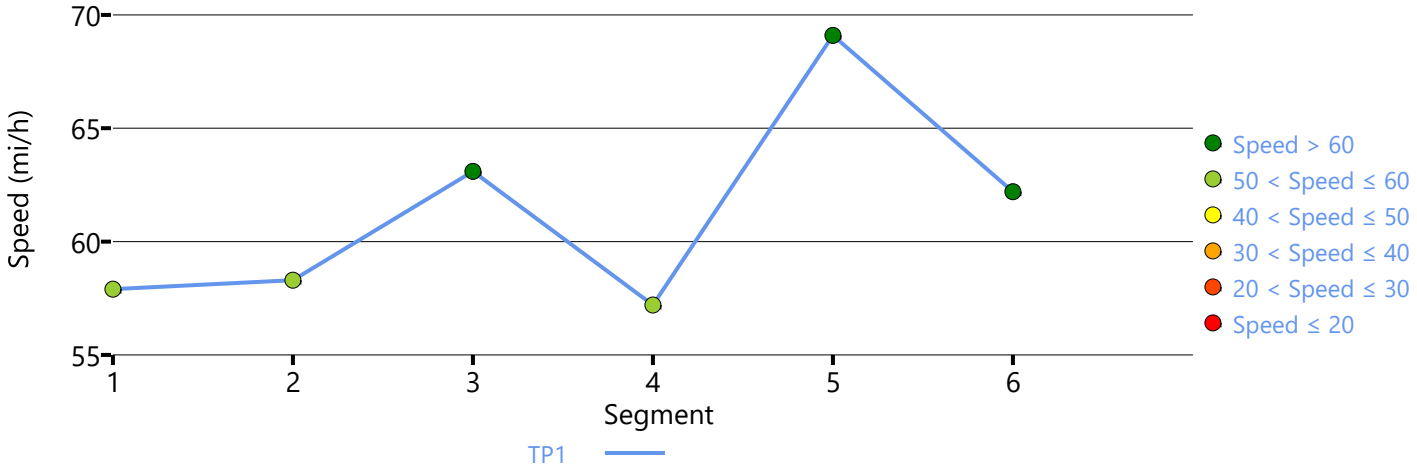
Messages

Comments

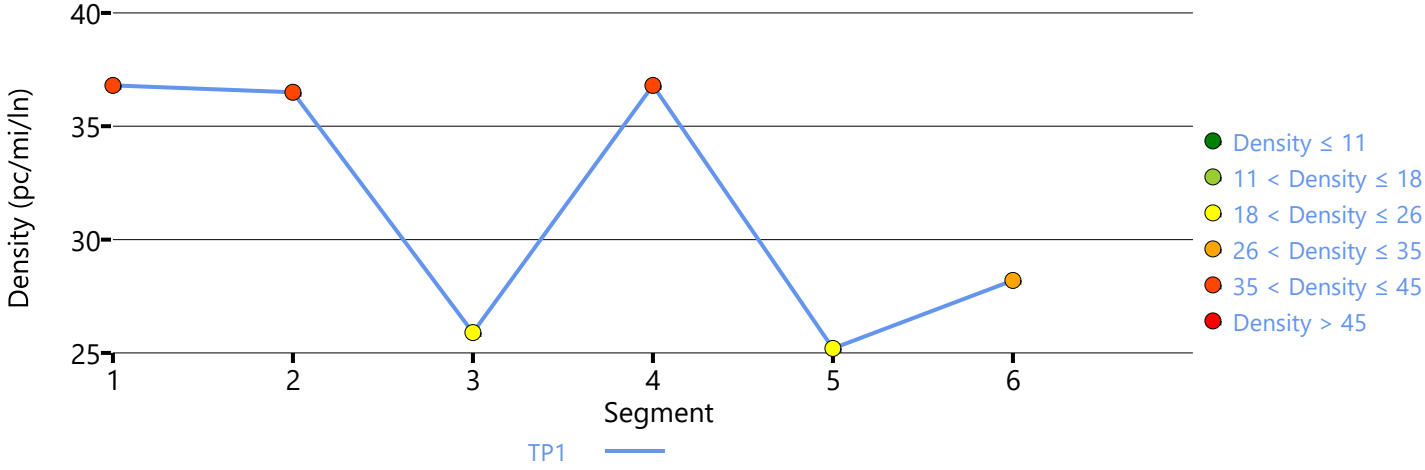
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Cumulative (2046) NP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5573	7098	0.79	63.0	29.5	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.990	5573	1851	7200	4000	0.77	0.46	62.2	55.5	29.9	31.6	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3619	4688	0.77	62.2	29.1	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	4046	427	4800	1900	0.84	0.22	58.5	58.5	34.6	32.2	D

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4298	229	4800	2000	0.90	0.11	57.0	57.0	37.7	34.0	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4312	4688	0.92	56.6	38.1	E

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	60.5	31.9	29.9	1.30	D

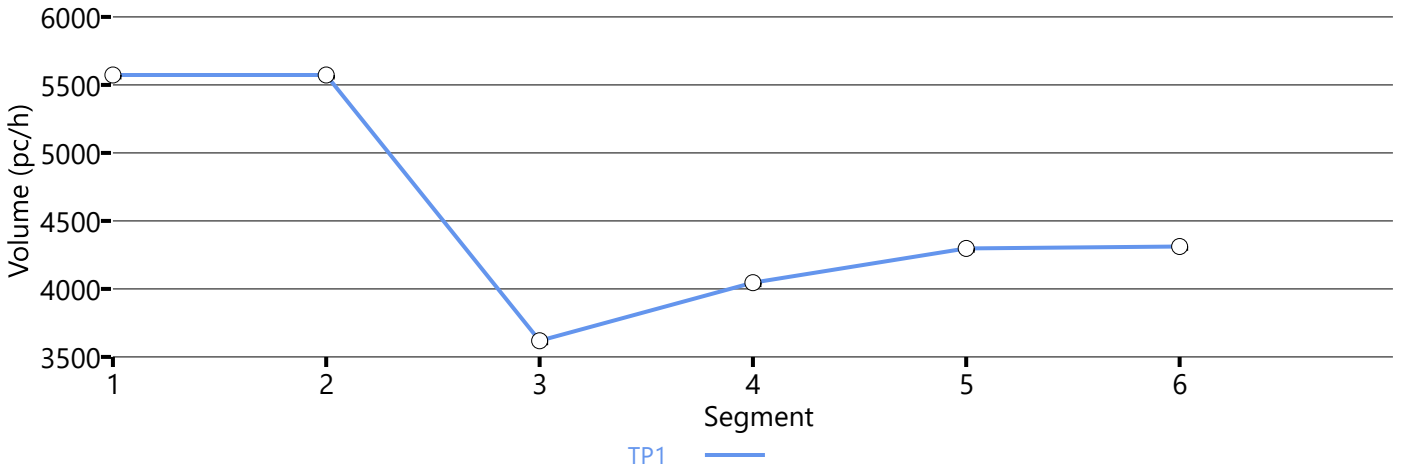
Facility Overall Results

Space Mean Speed, mi/h	60.5	Density, veh/mi/ln	29.9
Average Travel Time, min	1.30	Density, pc/mi/ln	31.9

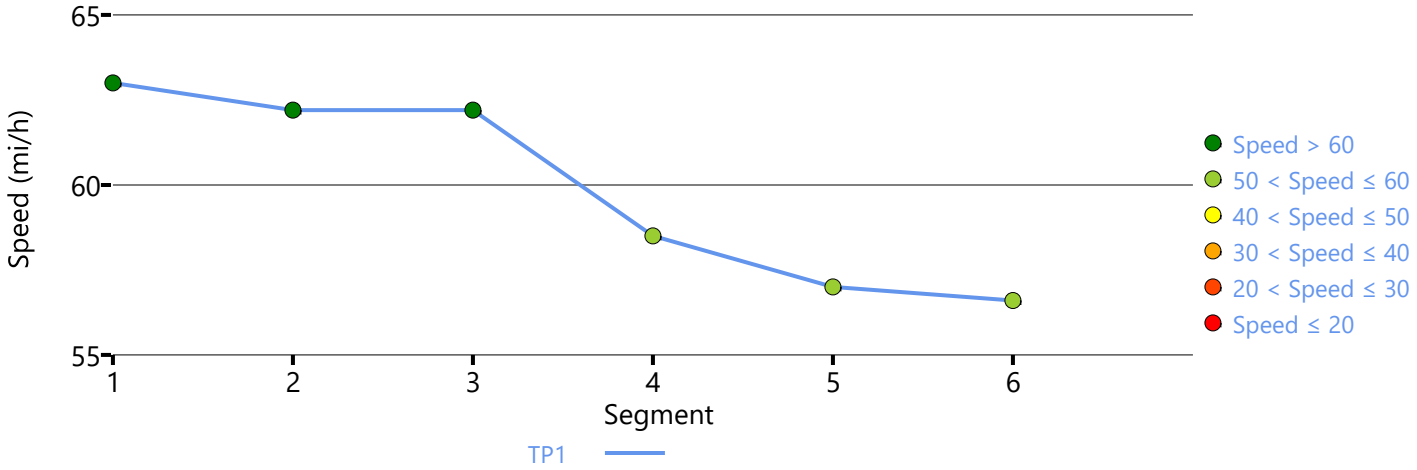
Messages

Comments

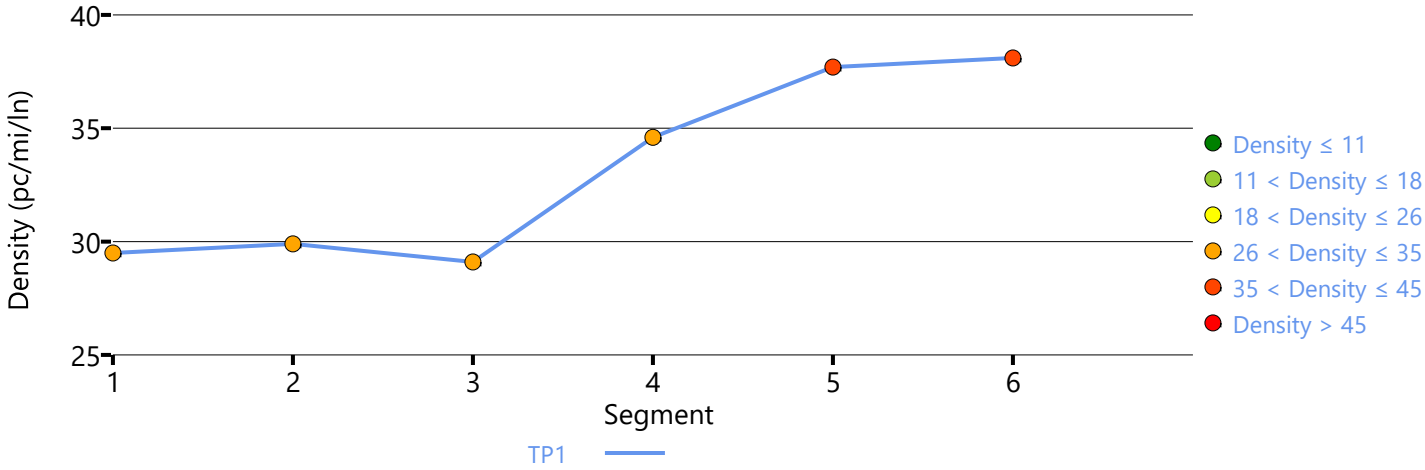
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Cumulative (2046) NP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4296	4716	1.02	37.1	57.9	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4251	516	4800	2000	1.00	0.26	35.1	59.6	60.5	42.0	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3629	4672	0.91	24.6	73.8	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.985	4470	841	4800	2000	1.07	0.42	54.6	54.6	40.9	36.7	F

2362

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	5125	655	7200	2000	0.81	0.33	65.1	-	26.2	-	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5125	7008	0.83	62.6	27.3	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.5	46.2	43.3	2.00	F

Facility Overall Results

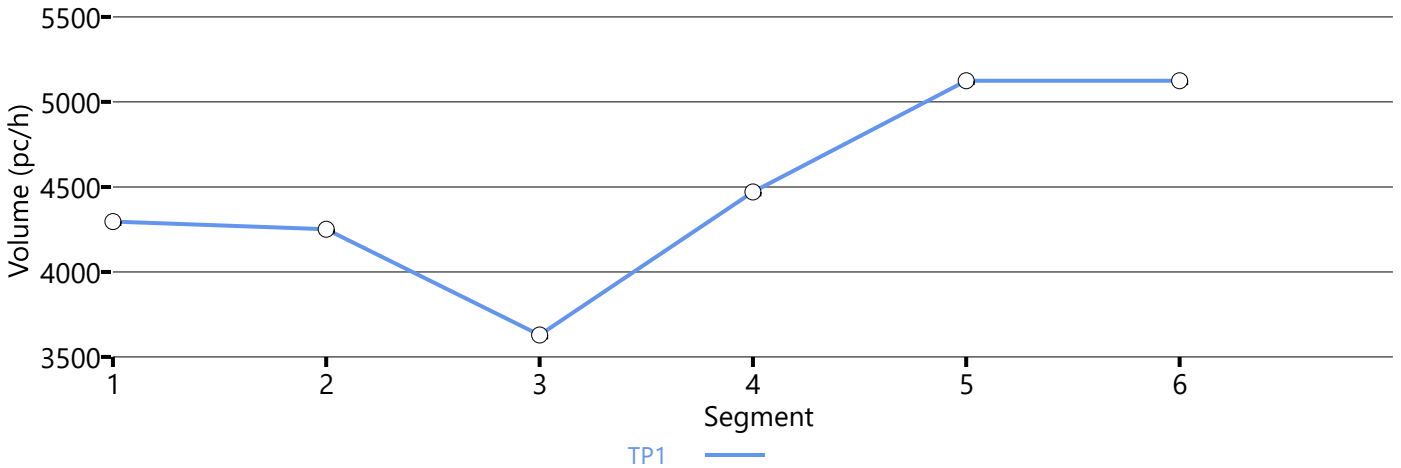
Space Mean Speed, mi/h	41.5	Density, veh/mi/ln	43.3
Average Travel Time, min	2.00	Density, pc/mi/ln	46.2

Messages

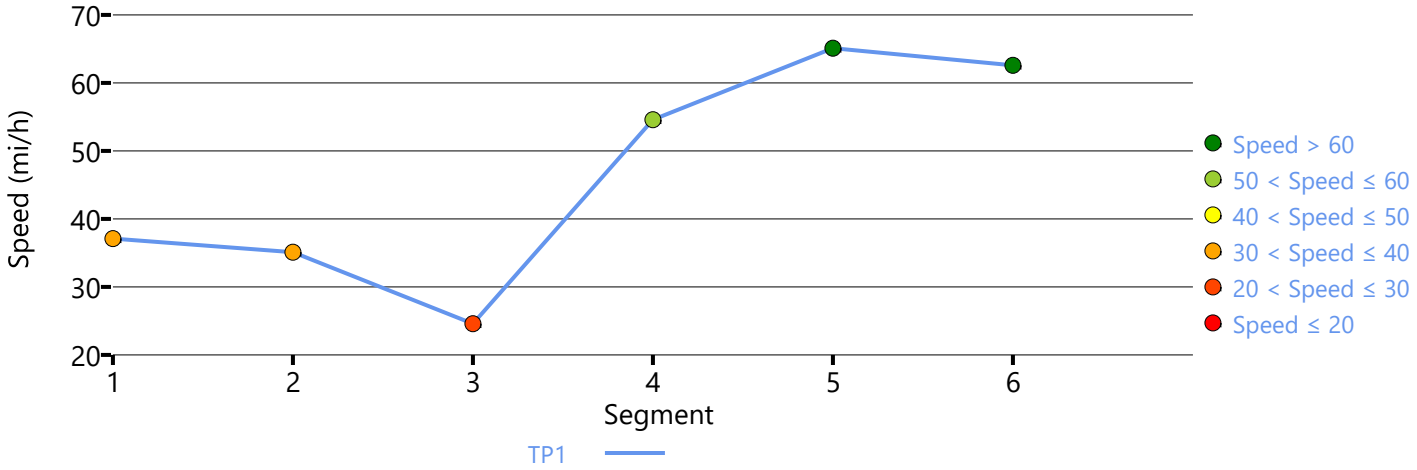
WARNING 1	Oversaturated conditions currently exist in boundary segment 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary time period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Queue extends past the beginning of the facility on time period 1. Consider expanding the length of the facility to account for these vehicles performance and affect on upstream segments.

Comments

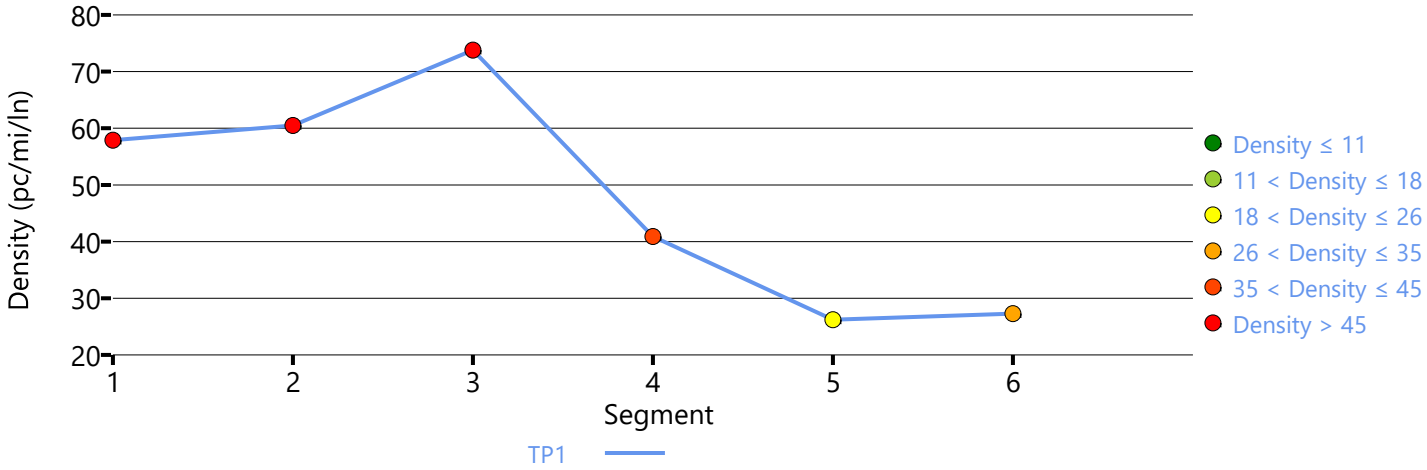
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Cumulative (2046) WP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	2150	7098	0.30	66.6	10.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.962	2150	1233	7200	4000	0.30	0.31	61.8	57.4	11.6	15.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	886	4688	0.19	64.2	6.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.991	1137	251	4800	1900	0.24	0.13	65.5	65.5	8.7	9.6	A

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	1.000	1250	99	4800	2000	0.26	0.05	66.1	66.1	9.5	10.3	B

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	1257	4688	0.27	64.4	9.8	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.3	9.6	9.1	1.20	A

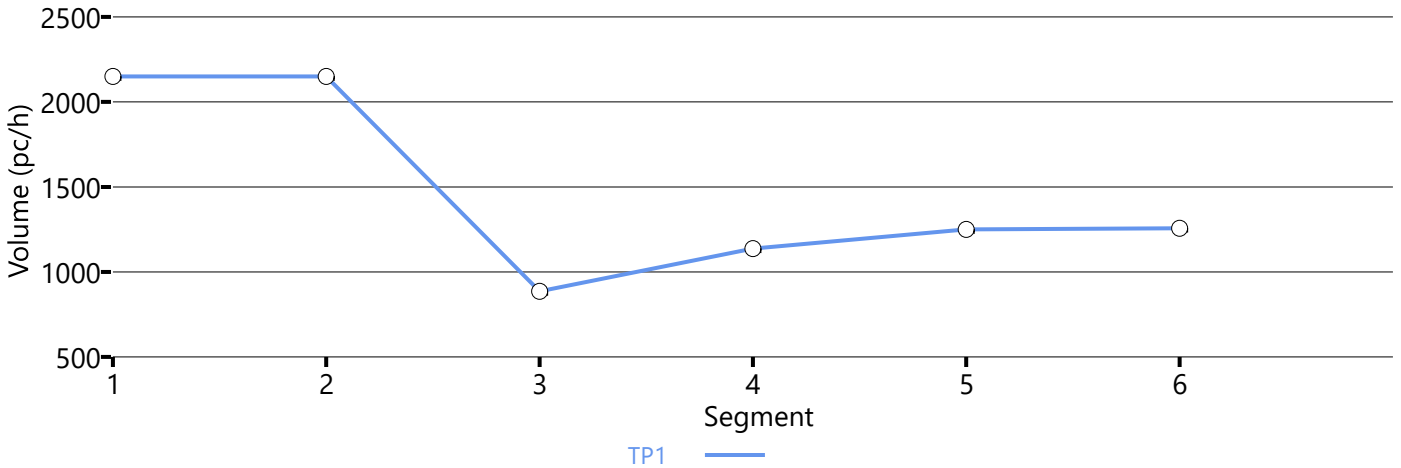
Facility Overall Results

Space Mean Speed, mi/h	64.3	Density, veh/mi/ln	9.1
Average Travel Time, min	1.20	Density, pc/mi/ln	9.6

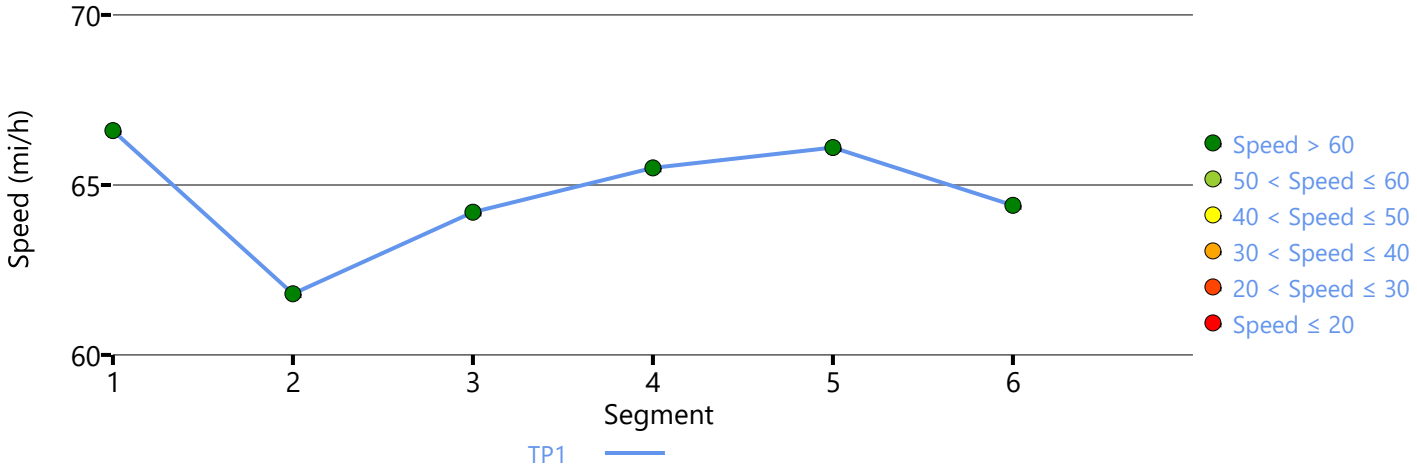
Messages

Comments

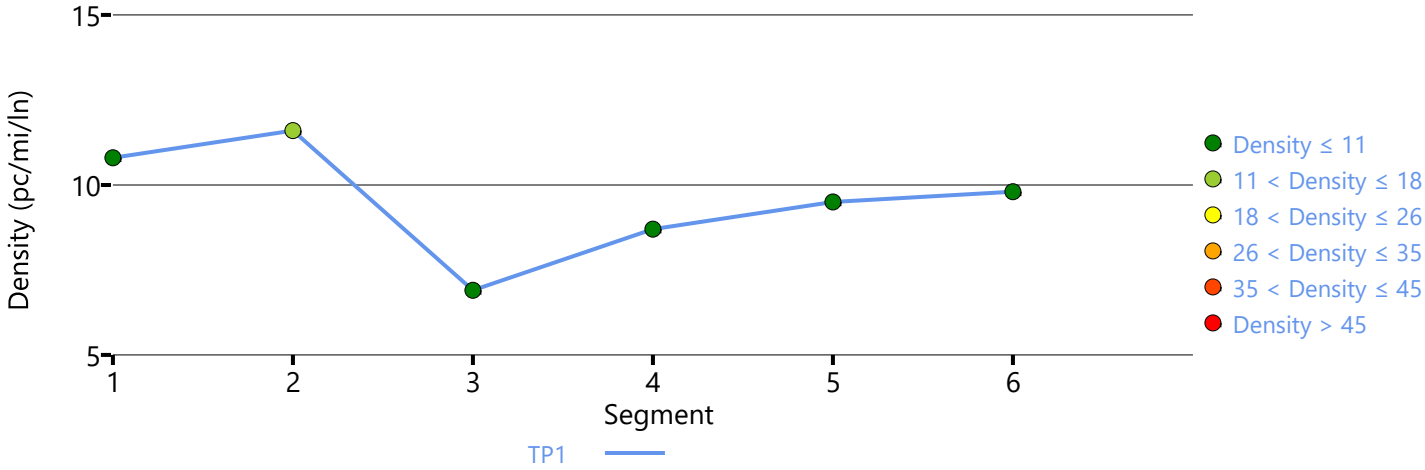
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Cumulative (2046) WP
Jurisdiction	Caltrans	Time Period Analyzed	A.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4255	4716	0.90	57.9	36.8	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4255	925	4800	2000	0.89	0.46	58.3	58.3	36.5	37.1	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3274	4672	0.70	63.1	25.9	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.981	4286	1012	4800	2000	0.89	0.51	56.5	56.5	37.9	35.2	E

2368

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.982	5306	974	7200	2000	0.74	0.49	68.6	-	25.8	-	C

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5352	7008	0.76	62.0	28.8	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.5	30.7	28.8	1.40	D

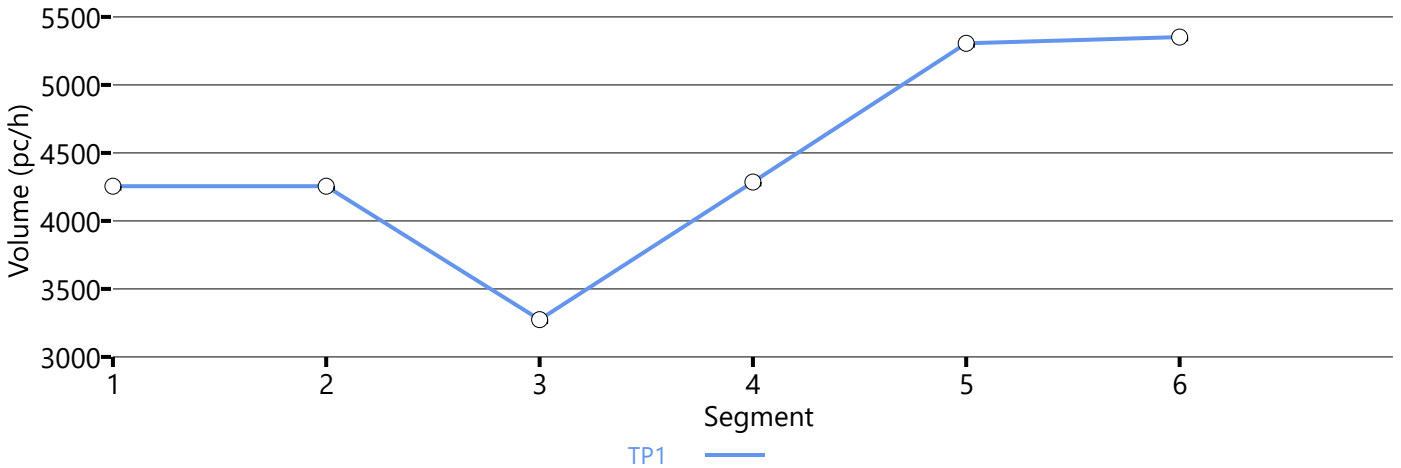
Facility Overall Results

Space Mean Speed, mi/h	61.5	Density, veh/mi/ln	28.8
Average Travel Time, min	1.40	Density, pc/mi/ln	30.7

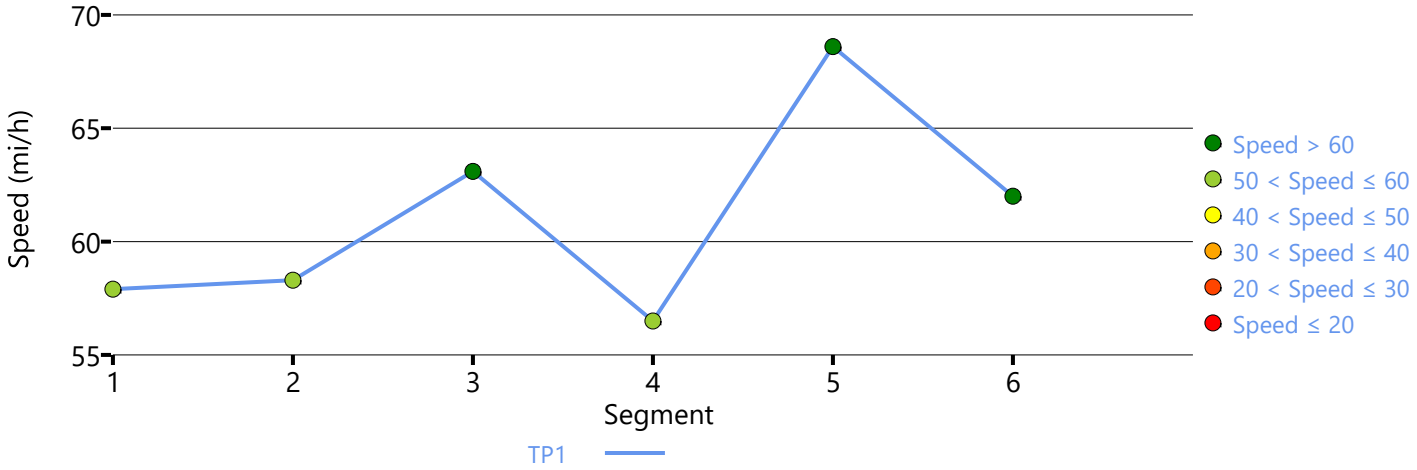
Messages

Comments

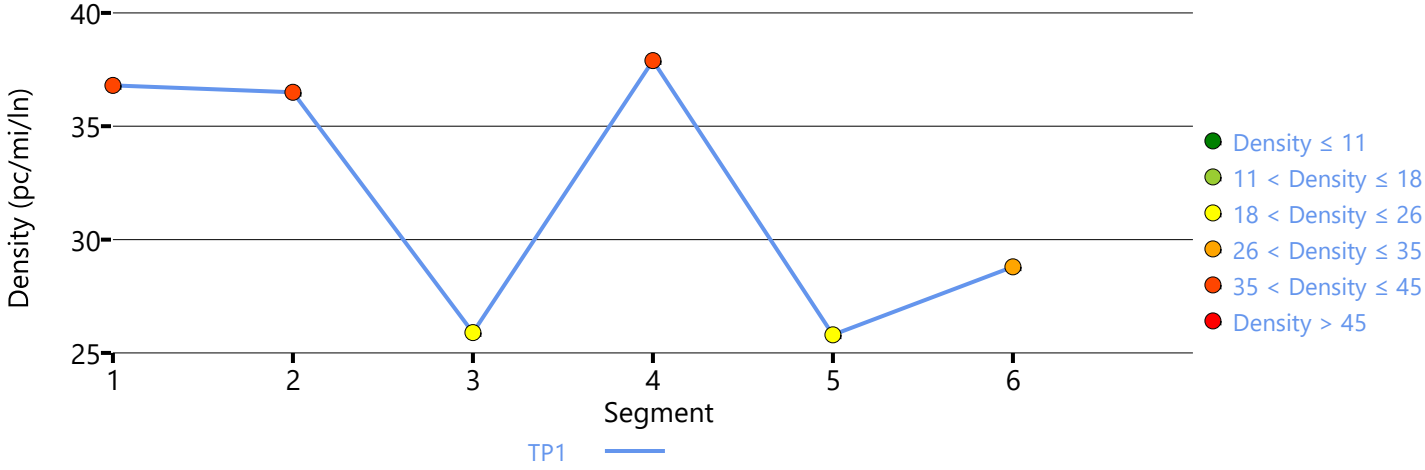
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	2/19/2023
Agency		Analysis Year	Cumulative (2046) WP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.29		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Bullard Avenue On-Ramp and Herndon Avenue Off-Ramp	885	3
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	3
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1725	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1070	2
5	Merge	Merge	Herndon Avenue Slip On-Ramp	1500	2
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Fowler Avenue Off-Ramp	115	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5668	7098	0.80	62.6	30.2	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.990	5668	1942	7200	4000	0.79	0.49	61.9	55.3	30.5	32.4	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3619	4688	0.77	62.2	29.1	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	4046	427	4800	1900	0.84	0.22	58.5	58.5	34.6	32.2	D

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4298	229	4800	2000	0.90	0.11	57.0	57.0	37.7	34.0	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4312	4688	0.92	56.6	38.1	E

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	60.4	32.2	30.2	1.30	D

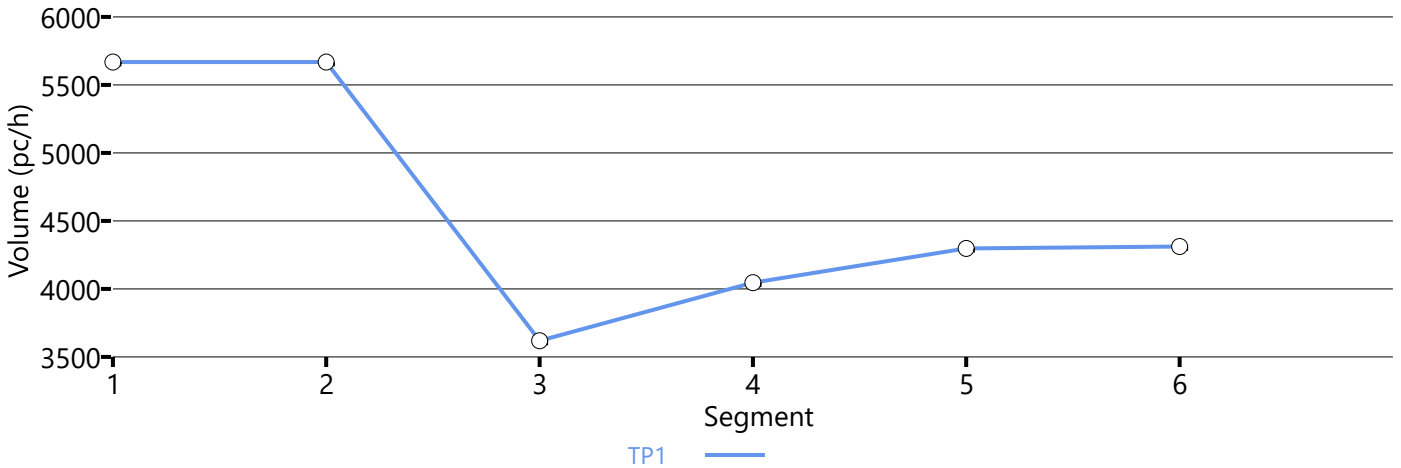
Facility Overall Results

Space Mean Speed, mi/h	60.4	Density, veh/mi/ln	30.2
Average Travel Time, min	1.30	Density, pc/mi/ln	32.2

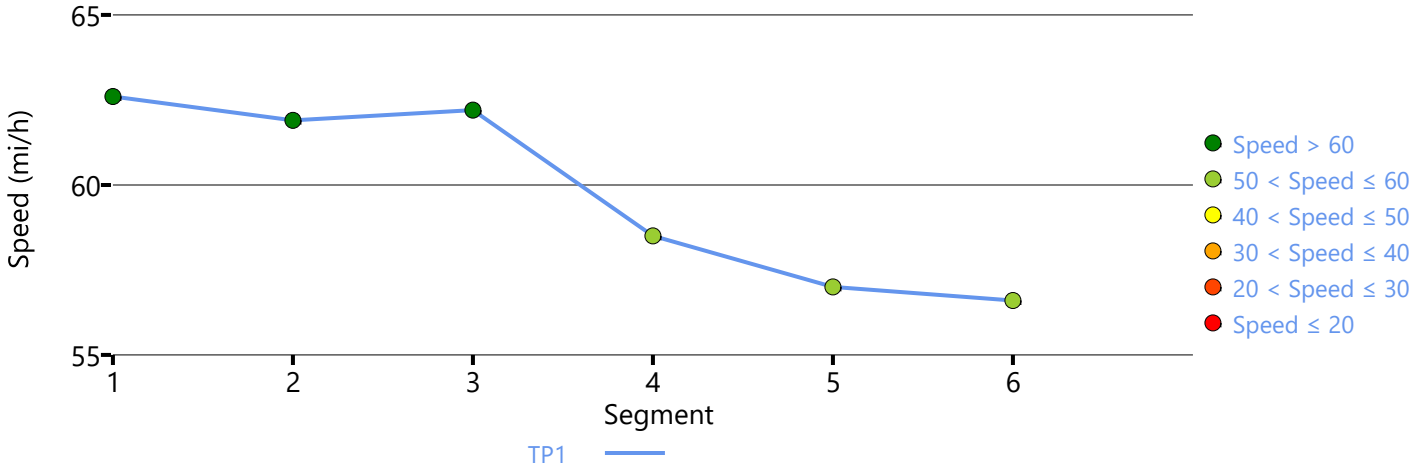
Messages

Comments

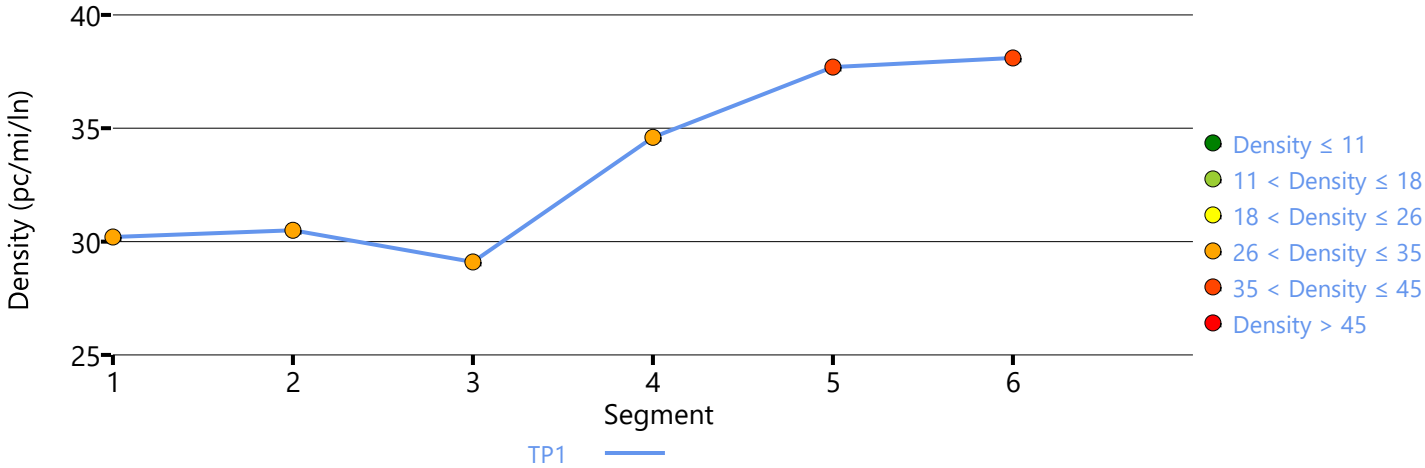
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Freeway Facilities Report

AGENDA ITEM NO. 3.

Project Information

Analyst	LSA	Date	3/10/2023
Agency		Analysis Year	Cumulative (2046) WP
Jurisdiction	Caltrans	Time Period Analyzed	P.M. Peak Hour
Project Description	Tract Map 6343	Unit	United States Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	6
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	1.40		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Between Fowler Avenue On-Ramp and Herndon Avenue Off-Ramp	355	2
2	Diverge	Diverge	Herndon Avenue Off-Ramp	1500	2
3	Basic	Basic	Between Herndon Avenue Off-Ramp and Herndon Avenue Loop On-Ramp	1755	2
4	Merge	Merge	Herndon Avenue Loop On-Ramp	1500	2
5	Merge	Basic	Herndon Avenue Slip On-Ramp	1500	3
6	Basic	Basic	Between Herndon Avenue Slip On-Ramp and Bullard Avenue Off-Ramp	760	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	4250	4716	1.02	35.8	59.3	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.995	4201	516	4800	2000	1.00	0.26	33.9	59.6	62.0	42.0	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	3575	4672	0.91	23.6	75.6	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.985	4470	895	4800	2000	1.08	0.45	54.6	54.6	40.9	36.6	F

2374

Segment 5: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.938	0.989	5125	655	7200	2000	0.82	0.33	65.1	-	26.2	-	D

Segment 6: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.938	5125	7008	0.84	62.6	27.3	D

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	40.7	46.8	43.9	2.10	F

Facility Overall Results

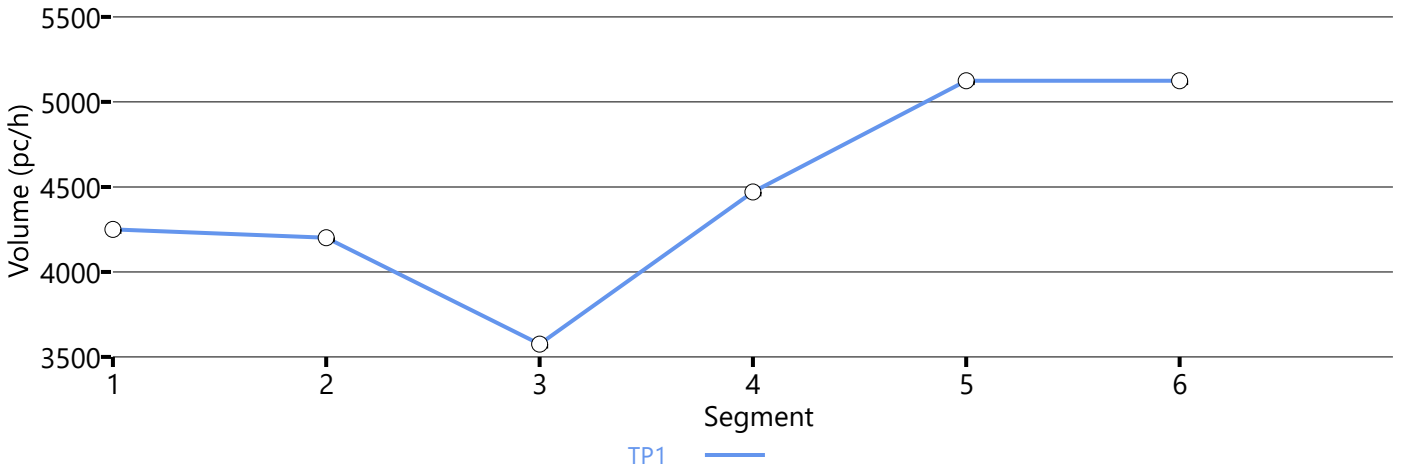
Space Mean Speed, mi/h	40.7	Density, veh/mi/ln	43.9
Average Travel Time, min	2.10	Density, pc/mi/ln	46.8

Messages

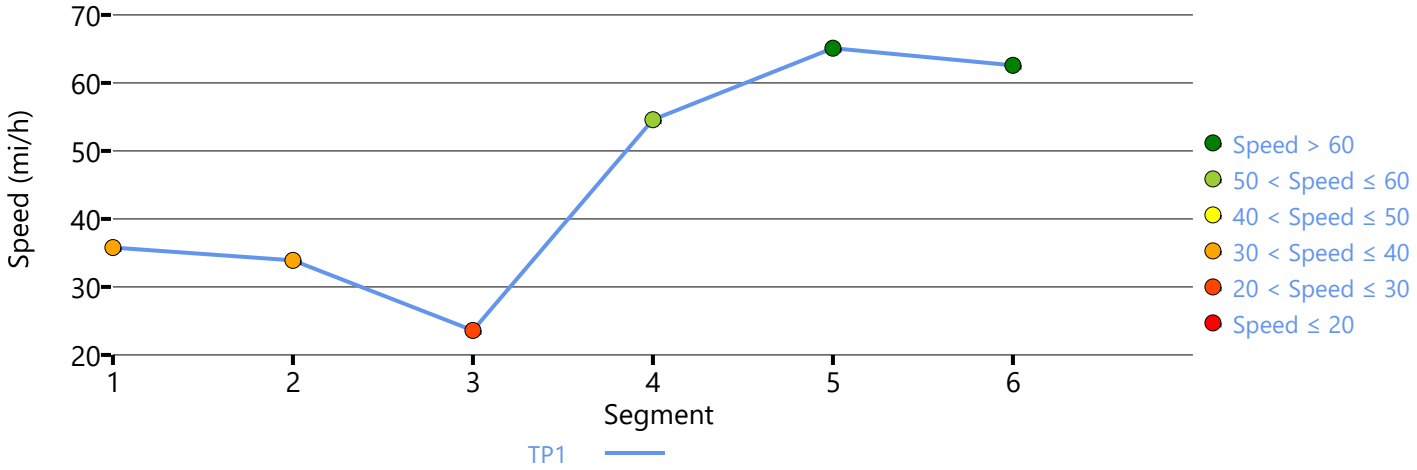
WARNING 1	Oversaturated conditions currently exist in boundary segment 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary time period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Queue extends past the beginning of the facility on time period 1. Consider expanding the length of the facility to account for these vehicles performance and affect on upstream segments.

Comments

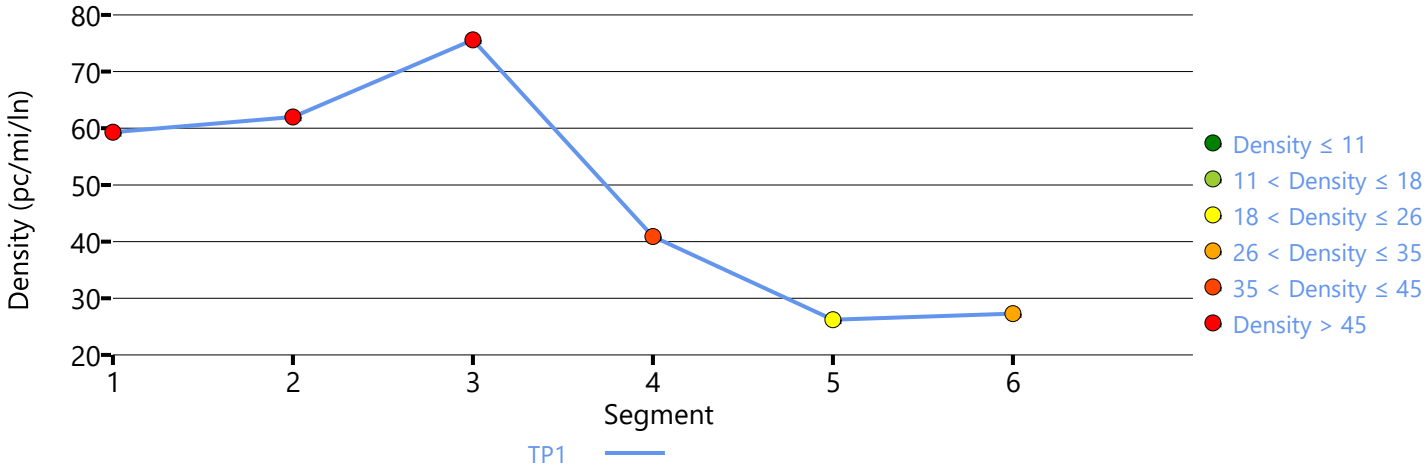
Volume Distribution



Speed Distribution



Density Distribution



Copyright © 2023 University of Florida. All Rights Reserved.

This page intentionally left blank

FINAL ENVIRONMENTAL IMPACT REPORT

TRACT MAP 6343

CLOVIS, CALIFORNIA

LSA

April 2024

Attachment 12

This page intentionally left blank

FINAL ENVIRONMENTAL IMPACT REPORT

TRACT MAP 6343
CLOVIS, CALIFORNIA

Submitted to:

City of Clovis
Planning Division
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
2565 Alluvial Avenue, Suite 112
Clovis, California 93611
(559) 490-1210

Project No. CIT2201

LSA

April 2024

This page intentionally left blank

TABLE OF CONTENTS

LIST OF ABBREVIATIONS AND ACRONYMS iii

1.0 INTRODUCTION 1-1

1.1 Purpose of the Response to Comments Document 1-1
1.2 Environmental Review Process 1-1
1.3 Document Organization 1-1

2.0 LIST OF COMMENTERS 2-1

2.1 Organization of Comment Letters and Responses 2-1
2.2 List of Agencies Commenting on the Recirculated Draft EIR 2-1

3.0 COMMENTS AND RESPONSES 3-1

4.0 DRAFT EIR TEXT REVISIONS 4-1

APPENDIX

H: PUBLIC COMMENT LETTERS ON THE DRAFT EIR

TABLES

Table 2.A: List of Comments Received 2-1
Table 3.A: Comments and Responses Matrix 3-3

This page intentionally left blank

LIST OF ABBREVIATIONS AND ACRONYMS

ABM	Activity Based Model
AIA	Air Impact Assessment
APN	Assessor's Parcel Number
ATC	Authority to Construct
BACT	Best Available Control Technology
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBB	Crotch's bumblebee
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGYM	Clean Green Yard Machines
City	City of Clovis
CNDDB	California Natural Diversity Database
CO	Carbon Monoxide
CTS	California tiger salamander
Draft EIR	Draft Environmental Impact Report
EV	electric vehicle
FID	Fresno Irrigation District
Final EIR	Final Environmental Impact Report
FMFCD	Fresno Metropolitan Flood Control District

Fresno COG	Fresno Council of Governments
FT/ST	Federal and State threatened
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
ISR	Indirect Source Review
ITP	Incidental Take Permit
MDBM	Mount Diablo Base and Meridian
MMRP	Mitigation Monitoring and Reporting Program
NOA	Notice of Availability
NOD	Notice of Determination
NOP	Notice of Preparation
NO_X	nitrogen oxides
PG&E	Pacific Gas and Electric
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PTO	Permit to Operate
PV	Photovoltaic
ROG	Reactive Organic Gases
ROW	right-of-way
RTMF	Regional Transportation Mitigation Fee
SB	Senate Bill
SBA	Small Business Assistance
SCE	State candidate endangered
SGMA	Sustainable Groundwater Management Act

SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_X	Sulfur Oxides
SR	State Route
TIA	Transportation Impact Analysis
VMT	vehicle miles travelled
VOC	volatile organic compound

This page intentionally left blank

1.0 INTRODUCTION

1.1 PURPOSE OF THE RESPONSE TO COMMENTS DOCUMENT

This document has been prepared to respond to comments received on the Draft Environmental Impact Report (Draft EIR) prepared for the proposed Tract Map 6343 (herein referred to as the proposed project) for the City of Clovis (City). The Draft EIR identifies the likely environmental consequences associated with development of the proposed project and recommends mitigation measures to reduce potentially significant impacts. This Final Environmental Impact Report (Final EIR) provides responses to comments on the Draft EIR and makes revisions to the Draft EIR, as necessary, resulting from those comments or to clarify material in the Draft EIR. This document, together with the Draft EIR, constitutes the EIR for the proposed project.

1.2 ENVIRONMENTAL REVIEW PROCESS

According to the California Environmental Quality Act (CEQA), lead agencies are required to consult with public agencies having jurisdiction over a proposed project and to provide the general public with an opportunity to comment on the Draft EIR.

On December 19, 2022, the City circulated a Notice of Preparation (NOP) notifying responsible agencies and interested parties that an EIR would be prepared for the proposed project and indicated the environmental topics anticipated to be addressed in the EIR. The NOP was sent to the State Clearinghouse, responsible agencies, interested parties, and organizations likely to be interested in the potential impacts of the proposed project. A scoping session was held on January 13, 2023, to solicit feedback regarding the scope and content of the EIR. Comments received by the City on the NOP were considered during preparation of the Draft EIR.

The Draft EIR was made available for public review on January 12, 2024, and was distributed to local and State responsible and trustee agencies. The Notice of Availability (NOA) for the Draft EIR was submitted to the State Clearinghouse, provided to all individuals and organizations who made a written request for notice, and filed with the Fresno County Clerk.

The public comment period ended on March 4, 2024. The City accepted and responded to all comments received during the 53-day public comment period between January 12, 2024, and March 4, 2024. Copies of all written comments received during the comment period are included in Chapter 3.0, Comments and Responses, of this document.

1.3 DOCUMENT ORGANIZATION

This Final EIR consists of the following chapters:

- **Chapter 1.0: Introduction.** This chapter discusses the purpose and organization of this Final EIR, and summarizes the environmental review process for the project.

- **Chapter 2.0: List of Commenters.** This chapter contains a list of agencies and individuals who submitted written comments during the public review period and comments made at the public hearing on the Draft EIR.

- **Chapter 3.0: Comments and Responses.** This chapter contains reproductions of all comment letters received on the Draft EIR. A written response for each CEQA-related comment received during the public review period is provided. Each response is keyed to the corresponding comment.

- **Chapter 4.0: Draft EIR Text Revisions.** Corrections to the Draft EIR that are necessary in light of the comments received and responses provided, or necessary to amplify or clarify material in the Draft EIR, are contained in this chapter. Double underlined text represents language that has been added to the Draft EIR; text with strikeout has been deleted from the Draft EIR.

2.0 LIST OF COMMENTERS

This chapter presents a list of comment letters received during the public review period and describes the organization of the letters and comments provided in Chapter 3.0, Comments and Responses, of this document.

2.1 ORGANIZATION OF COMMENT LETTERS AND RESPONSES

Chapter 3.0 includes a reproduction of each comment letter received on the Draft EIR. The written comments are grouped by the affiliation of the commenter, as follows: State agencies (A), and local agencies (B).

The comment letters are numbered consecutively following the A and B designations, and follow the format below:

State Agencies	A#-#
Local Agencies	B#-#

The letters are numbered, and comments within each letter are numbered consecutively after the hyphen. For example, Letter A1 represents the first State agency letter, and Comment A1-1 represents the first enumerated comment within that letter.

2.2 LIST OF AGENCIES COMMENTING ON THE DRAFT EIR

Table 2.A provides a list of the State agencies and local agencies that commented on the Draft EIR prior to the close of the public comment period. The comments received have been organized by date received and in a manner that facilitates finding a particular comment or set of comments. Each comment letter received is indexed with a number below.

Table 2.A: List of Comments Received

State Agencies		
A1	California Department of Fish and Wildlife, Julie Vance	February 23, 2024
A2	California Department of Transportation, David Padilla	March 4, 2024
Local Agencies		
B1	Fresno Irrigation District, Laurence Kimura	January 22, 2024
B2	San Joaquin Valley Air Pollution Control District, Tom Jordan	February 29, 2024

This page intentionally left blank

3.0 COMMENTS AND RESPONSES

Written responses to each comment letter received on the Draft EIR are provided in this chapter. All letters received during the public review period on the Draft EIR are provided in their entirety. The letters are immediately followed by responses keyed to the specific comments. The letters are grouped by the affiliation of the commenting entity as follows: State agencies (A), and local agencies (B).

Please note that to the extent text within individual letters has not been numbered, it indicates that the text does not raise substantive environmental issues or relate to the adequacy of the information or analysis within the Draft EIR; therefore, no comment is enumerated, nor is a response required per California Environmental Quality Act (CEQA) Guidelines Sections 15088 and 15132. In addition, when general support or opposition is given for the proposed project, that comment is noted but no further analysis is provided in the response, as the commenter is not questioning the adequacy of the information or analysis within the Draft EIR. However, comments related to the merits of the proposed project will be considered by decision-makers taking action on the proposed project.

Where comments on the Draft EIR concern issues requiring technical expertise, the responses to comments, like the analysis in the Draft EIR, rely on the knowledge and professional analysis of qualified experts.

Where revisions to the Draft EIR text are called for, the page is set forth followed by the appropriate revision. Added text is indicated with double-underlined text, and deleted text is shown in ~~strikethrough~~. Text revisions to the Draft EIR are summarized in Chapter 4.0 of this Final EIR.

3.1 COMMENTS AND RESPONSES MATRIX

Table 3.A includes all CEQA-related comments received on the Draft EIR and a response to each comment. The text of each comment has been included in the matrix and includes any grammatical errors included in the original comment letter. Each comment letter is included in its entirety in Appendix K, Public Comment Letters on the Draft EIR.

This page intentionally left blank

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
State Agencies		
A1	**California Department of Fish and Wildlife (February 23, 2024)**	
A1-1	The California Department of Fish and Wildlife (CDFW) received a DEIR from the City of Clovis for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.	This is an introductory comment. This comment does not address the adequacy or completeness of the Draft EIR; raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is required.
A1-2	**CDFW ROLE** CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statue for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id*., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be required.	The following comment states that the California Department of Fish and Wildlife (CDFW) is a State Trustee Agency with jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species, and, as such, provides biological expertise during public agency environmental review efforts for projects and related activities that have the potential to adversely affect fish and wildlife resources. The comment also states that as a Responsible Agency under CEQA, the CDFW may exercise regulatory authority over the proposed project under the Fish and Game Code, including enforcement of CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.), and provision of authorization for "take", as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.). This comment is noted. The proposed project would comply with all applicable CDFW regulatory requirements, and would implement CDFW recommendations, as applicable, to address any potential adverse effects to fish and wildlife resources.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
A1-3	**Nesting Birds:** CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).	This comment states that per sections 3503, 3503.5 and 3513 of the Fish and Game Code, the CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. This comment is noted but does not address the adequacy or completeness of the Draft EIR; raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is required.
A1-4	**PROJECT DESCRIPTION SUMMARY** **Proponent:** City of Clovis **Objective:** The Proposed Tract Map 6343 (Project) would consist of the annexation of 246 acres from Fresno County to the City of Clovis, and the development of 590 residential lots within the 71.54-acre Project site constructed in 3 phases. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces would be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. Associated entitlements include Annexation to the City of Clovis and a Planned Development Permit, General Plan Amendment, Prezone, and Tract Map approval to allow for 590 single-family residences. To facilitate the future development of the subject property, the proposed Project will also require dedications and/or acquisitions for public street rights-of-way and utility easements, as well as the construction of public facilities and infrastructure. In addition, development of the Project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed Project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot-long extension of Baron Avenue south of East Behymer Avenue. **Location:** The Tract Map 6343 Project site is located directly north of the City of Clovis limit line at the southwest corner of the East Behymer Avenue and North Sunnyside Avenue intersection. The Project site is bounded by East	This comment includes a summary of the Project Description for the proposed project, as described in Section 3.0, Project Description, of the Draft EIR. This comment is noted but does not pertain to the analysis or conclusions of the Draft EIR. No further response is required.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The Project site is in the northwest quadrant of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian (MDBM).	
A1-5	**COMMENTS AND RECOMMENDATIONS** CDFW offers the following comments and recommendations to assist the City of Clovis in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project. There are special status species that may be present at the Project site that were not appropriately evaluated in the DEIR for this Project. CDFW recommends that these resources be evaluated and addressed prior to any approvals that would allow ground-disturbing activities or land use changes. Specifically, CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the Federal and State threatened (FT/ST) California tiger salamander (*Ambystoma californiense*), and the State candidate endangered (SCE) Crotch's bumblebee (*Bombus crotchii*). In order to adequately assess any potential impacts to biological resources, focused biological surveys should be conducted by a qualified biologist during the appropriate survey period(s) in order to determine whether any special-status species or resources may be present within the Project area. Properly conducted biological surveys are also necessary to identify Project-related impacts to biological resources and assist with determining the need for species and resource specific minimization and compensatory mitigation measures. Additionally, adequate biological surveys are necessary to assist with determining the need for the Project to obtain an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b)	This comment indicates that the Draft EIR does not appropriately evaluate potential impacts to special-status species, particularly the California tiger salamander (*Ambystoma californiense*), Crotch's bumblebee (*Bombus crotchii*), and nesting birds; as such, the CDFW has provided comments and recommendations to address the proposed project's potentially significant impacts on biological resources. These recommendations include the implementation of preconstruction surveys by a qualified biologist to identify project-related impacts to California tiger salamander and Crotch's bumblebee, and if applicable, implementation of species-and-resource-specific minimization and compensatory mitigation measures. Additionally, the CDFW recommends preconstruction surveys for nesting birds to determine the need for the proposed project to obtain an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b). This comment is noted. As shown in Responses A1-6 and A1-7 below, both California tiger salamander and Crotch's bumblebee have been sufficiently addressed in the Biological Resource Assessment[1] prepared for the Draft EIR, and no additional mitigation measures are required to address impacts to these species. Further, as shown in Response A1-8, Mitigation Measures BIO-1 has been refined to incorporate CDFW recommendations to address impacts to nesting birds covered under sections 3503, 3503.5 and 3513 of the Fish and Game Code. Implementation of Mitigation Measure BIO-1, as amended in Chapter 4.0 of this Final EIR, would reduce take potential to special-status species to a less-than-significant level. No further response is required.
A1-6	**COMMENT 1: California Tiger Salamander**	California tiger salamander (CTS) protocol-level surveys are appropriate when there is reasonable evidence, based on a detailed field review, that suitable habitat is

[1] Argonaut Ecological Consulting. 2022. Biological Resources Assessment – Tentative Tract 6343 and City of Clovis Annexation Area. September 26.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	The DEIR does not include an appropriate evaluation for the California tiger salamander (CTS). CDFW's Notice of Preparation (NOP) comment letter for the Project, which was sent on January 17, 2023, recommended protocol-level surveys for CTS. As it appears the biological surveys conducted in support of the DEIR did not incorporate CDFW's survey recommendations, CDFW reiterates the recommendation to conduct the surveys outlined in CDFW's NOP comment letter, and, if necessary, including the avoidance, mitigation, and minimization measures recommended in the letter.	present within a Study Area and when a review of potential breeding habitat (seasonal wetlands) within a 1.3-mile radius of the Study Area shows the presence of potential breeding habitat within the search radius. The site assessment guidelines[2] include a site assessment protocol that includes three elements. The assessment results determine whether protocol-level field surveys are warranted. The elements deal with 1) whether the Study Area is within the range of CTS, 2) the regional setting of the Study Area within known CTS habitat (other known occurrences within 3.1-mile radius of the site), and 3) known occurrences of breeding habitat within a 1.24-mile radius of the Study Area. The biological fieldwork conducted for the Draft EIR, and included in the Biological Resource Assessment[3] included an evaluation of the project Study Area with respect to the three elements outlined above. The evaluation determined that the Study Area is within the CTS range, however, the Biological Resource Assessment also determined there are 12 known occurrences within the Clovis region and none of these occur within 1.3-mile radius (slightly larger radius than the above-referenced 1.24-mile radius was used). More importantly, the Biological Resource Assessment also reviewed aerial photography to confirm that no unrecorded potential breeding habitats are visible on aerials within the 1.3-mile radius. Neither the Study Area nor the adjacent habitat supports suitable breeding or suitable upland aestivation habitat within a 1.3-mile radius of the breeding habitat. Based on the evaluation described in the Draft EIR, there is no basis to require protocol-level field surveys for CTS within the Study Area for the proposed project because of the lack of suitable habitat and proximity to suitable breeding habitat. CDFW provides a recommendation that is not based on either a habitat assessment or a field survey conducted by CDFW. The City respectfully disagrees with their assumption because CDFW's recommendation does not apply to areas with demonstrated non-suitable habitats. No further response is required.
A1-7	**COMMENT 2: Crotch's Bumble Bee (CBB)**	The Draft EIR did consider the Crotch's bumblebee (CBB) and concluded that the likelihood of the species being present, based on the project site's habitat condition

[2] Interim Guidance on Site Assessment and Field Survey for Determining Presence or Negative Findings of the California Tiger Salamander, October 2003.

[3] Argonaut Ecological Consulting. 2022. Biological Resources Assessment – Tentative Tract 6343 and City of Clovis Annexation Area. September 26.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	The DEIR also does not include any evaluation for Crotch's bumblebee (CBB) which was included in CDFW's January 17, 2023, NOP comment letter. Survey recommendations (updated protocol) for CBB have changed from the recommendations in the NOP letter. CDFW continues to recommend that CBB surveys be conducted according to the most recent protocol and the information found from those used to make appropriate conclusions in the DEIR (CDFW 2023). In addition to conducting protocol surveys for CBB, CDFW recommends the DEIR include the following measures: **Recommended Mitigation Measure 1: CBB Surveys Prior to Construction** CDFW continues to recommend conducting a baseline protocol survey to adequately inform the DEIR and support conclusions drawn therein relative to CBB. In addition to performing the baseline surveys recommended by CDFW during the NOP comment period, CDFW recommends that additional surveys, following the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species, be repeated the blooming period immediately prior to construction. **Recommended Mitigation Measure 2: CBB Avoidance Buffer** If surveys cannot be completed, CDFW recommends that **all** small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid unauthorized take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take. **Recommended Mitigation Measure 3: CBB Take Authorization**	(sparsely vegetated and routinely disturbed), is extremely low. This is based on known records and the species habitat preferences. The California Natural Diversity Database (CNDDB) only includes one record for CBB, which is mapped as a 5-mile radius in the "general vicinity of Fresno". The record is based on an observation in 1899 and was updated in 2015 within the CNDDB. Please note that an update is not necessarily based on new records or observations. The CNDDB also does not include any unprocessed data for CBB in the region. The Bumble Bee Watch Observation database includes several regional CBB records. Two record clusters occur on the east side of Millerton Lake, and another cluster of records occurs along the Kings River, just downstream of Pine Flat Reservoir and surrounding Pine Flat Reservoir. Within the Valley floor, the nearest records are just north of Los Banos in Merced County. Not much is known about CBB habitat preferences; however, CBB are associated with habitats with particular floral associations. The floral associations include genera such as Asclepias, Chaenactis, Lupinus, Medicago, phacelia, and salvia. These floral associations do not necessarily indicate preferences by CBB but instead represent the prevalence of these flowers in landscapes where this species occurs[4]. No species within these genera were observed onsite, except for Medicago sp (alfalfa). CBB is thought to be absent from most of the Central Valley, especially in the center of its historic range.[5] There is no evidence that the species is potentially present, and conducting baseline surveys does not appear to be supported by the condition of the habitat present, which is sparsely vegetated, disturbed, former agricultural land. Although the presence of this species is theoretically possible, given the historic agricultural land use within the project Study Area, such presence is highly unlikely and not sufficient to arise to the level of a potentially significant impact, or otherwise warrant protocol level survey or other mitigation measures.

[4] A petition to the State of California Fish and Game Commission to List The Crotch bumble bee (*Bombus crotch*ii), Franklin's bumble bee (*Bombus franklini*)., et. al as Endangered under the California endangered Species Act. The Xerces Society for Invertebrate Conservation, Defender of Wildlife, Center for Food Safety, October 2018.

[5] Ibid.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	If CBB is identified during surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities may be warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).	
A1-8	**COMMENT 3: Nesting Birds** Mitigation Measure BIO-1: Nesting Bird Surveys and Active Nest Avoidance states that a qualified biologist shall conduct a nesting bird survey no more than 15 days prior to each phase of clearing activities. CDFW recommends that a qualified biologist conduct a nesting bird survey no more than 10 days prior to each phase of clearing activities.	The following comment includes a recommendation from the CDFW to update Mitigation Measure BIO-1 to state that pre-construction surveys for active nests be conducted no more than 10 days prior to each phase of clearing activities. Therefore, in response to this comment, and as shown in Chapter 4.0 of this Final EIR, Mitigation Measure BIO-1 has been updated as follows: **Mitigation Measure BIO-1.** ***Nesting Bird Surveys and Active Nest Avoidance.*** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than ~~15~~10 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.
A1-9	**II. Editorial Comments and/or Suggestions** **ENVIRONMENTAL DATA** CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. ™). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed	This comment requests that any special-status species and natural communities detected during project surveys be uploaded to the California Natural Diversity Database (CNDDB) to comply with requirements of CEQA and the Public Resources Code, § 21003, subdivisio™(e); additionally, this comment provides parameters for the type of information to be reported; as well as instructions for finding and submitting the required field survey forms to the CNDDB. If applicable, the Project Applicant will coordinate with the qualified biologist performing preconstruction surveys of the project site to ensure that special-status species and natural communities detected during surveys are uploaded to the CNDDB. As such, this

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.	request will be fulfilled as applicable. This comment is noted, but does not pertain to the analysis or conclusions of the Draft EIR. No further response is required.
A1-10	**FILING FEES** If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).	This comment indicates that, because the proposed project has been determined to result in potential impacts to biological resources, the proposed project would be subject to payment of filing fees to the CDFW upon filing of the Notice of Determination (NOD) by the Lead Agency in order to cover the cost of environmental review by CDFW. The Project Applicant will pay all applicable filing fees to the CDFW upon the Lead Agency's filing of the NOD for the EIR. This comment is noted but does not address the adequacy or completeness of the Draft EIR; raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is required.
A1-11	CDFW appreciates the opportunity to comment on the Project to assist the City of Clovis Planning Division in identifying and mitigating the Project's impacts on biological resources. More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). If you have any questions, please contact Kelley Nelson, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Kelley.Nelson@wildlife.ca.gov.	This comment provides a closing to the comment letter and does not question the adequacy of the analysis included in the Draft EIR. No further response is required.
A1-12	Attachment #1: California Department of Fish and Wildlife Recommended Mitigation Monitoring and Reporting Program (MMRP)	This comment provides a Mitigation Monitoring and Reporting Program (MMRP) table for the CDFW-recommended measures outlined in Comments A1-6 to A1-8 above. As discussed above, based on the biological evaluation described in the Draft EIR, implementation of recommended measures for CTS and CBB would not be required. As such, these measures will not be incorporated into the EIR or MMRP. However, as shown in Response A1-8, Mitigation Measure BIO-1 has been updated to follow CDFW recommendations, and this updated mitigation measure will be included in the final MMRP. This comment is noted but does not address the adequacy or completeness of the Draft EIR; raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is required.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
A2	**California Department of Transportation (March 4, 2024)**	
A2-1	Thank you for the opportunity to review the Draft Environmental Impact Report (DEIR) for Trac™p (TM) 6343 which proposes to develop 71.54 acres into a 590 single-family residential development. The project is located south if Behymer Avenue between Minnewawa Avenue and Sunnyside Avenue, approximately 2.7 miles north of the State Route (SR) 168 and Herndon Avenue interchange. This project was previously reviewed as part of the Transportation Impact Analysis (TIA) and the Scope of Work for a TIA with our office submitting comment letters dated April 14, 2023, and June 22, 2022, respectively. Caltrans provides the following comments consistent with the State's smart mobility goals that support a vibrant economy and sustainable communities:	This is an introductory comment. This comment summarizes the proposed project, and does not address the adequacy or completeness of the Draft EIR; raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is required.
A2-2	1. The study lists the Near-Term (2026) without Project Peak Hour Traffic Volume for the eastbound State Route 168 off-ramp right turns to be 903 and the Cumulative (2046) without Project Peak Hour Traffic Volume for the eastbound State Route 168 off-ramp right turns to be 935 (at Intersection 14 northbound right-turns). Given the amount of growth in the area and the amount of the additional land annexed by the City of Clovis (174.46 acres of remaining annexation area surrounding the project site), this traffic volume increase appears underestimated. The forecasted volumes should be confirmed.	This comment is noted. The Near-Term (2026) traffic volumes were developed using existing traffic counts and by adding traffic from approved and pending projects that are anticipated to be completed by the project opening year (2026). The Cumulative (2046) traffic volumes were developed using the (Fresno COG) Activity Based Model (ABM) future scenario. The Fresno COG ABM Future scenario includes all cumulative projects that are anticipated to be built by year 2046. The model future scenario also includes roadway network improvements that are anticipated to be completed by Year 2046. The detailed volume development worksheets are included in the Appendix D of the Transportation Impact Analysis (TIA), which is included as Appendix G of the Draft EIR. This comment does not address the adequacy or completeness of the Draft EIR, raise environmental issues, and does not request the incorporation of additional information relevant to environmental issues. No further response is required.
A2-3	2. The TIA mitigation provided for Intersections 13, 14, 15 was stated as "using signal timing coordination and optimization" and that would "eliminate the queuing issues." However, signal timing sheets were not provided to substantiate the results. Also, the reduction of control delay for Insertion 15 (Herndon Avenue / Clovis Avenue) from Cumulative Year (2046) with Project - PM Pk Hour to Cumulative Year (2046) with Project	This comment is noted. Signal timing sheets will be provided to Caltrans by the City prior to certification of the EIR. This comment does not address the adequacy or completeness of the Draft EIR, raise environmental issues, and does not request the incorporation of additional information relevant to environmental issues. No further response is required.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	Mitigation - PM Pk Hour (90 4 seconds to 49.0 seconds) seems optimistic. Signal timing sheets should be provided to corroborate these findings.	

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
A2-4	**General Comments:** 1. Caltrans highly recommends that the City consider creating a VMT Mitigation Impact Fee to help reduce potential impacts on the State Highway System. 2. It is recommended that the project contribute to all applicable Impact Fee programs, such as the City's Development Fee and the Regional Transportation Mitigation Fee (RTMF) program to ensure that the developments contribute to its fair share toward future improvement needs. 3. Caltrans recommends the project proponents consider working with the City to convert a portion of the planned residential units to affordable housing units. 4. Alternative transportation policies should be applied to the development. An assessment of multimodal facilities should be conducted to develop an integrated multimodal transportation system to serve and help alleviate traffic congestion resulting from the project and related development in the area of the City. The assessment should include the following: a. Pedestrian walkways should not only be limited to the project's internal connectivity but be connected to existing walkways and transit facilities outside the project area. b. The project should consider coordinating connections to local and regional bicycle pathways to encourage the use of bicycles for commuter and recreational purposes. c. If transit is not available within 1/4-mile of the project area, transit should be extended to provide services to high-activity centers of the project. 5. As part of the statewide effort to reduce greenhouse gas emissions, Caltrans recommends the project proponents consider the installation of Level 2 Electric Vehicle (EV) and DC Fast Charging EV charging stations into the housing units. 6. Active Transportation Plans and Smart Growth efforts support the state's 2050 Climate goals. Caltrans supports reducing VMT and GHG emissions in ways that increase the likelihood that people will use and benefit from a multimodal transportation network	This comment includes general comments to the City regarding the proposed project. 1. The City acknowledges Caltrans' recommendation that the City consider creating a VMT Mitigation Impact Fee to help reduce potential impacts on the State Highway System. 2. The proposed project will contribute to all applicable Impact Fee programs to ensure that the developments contribute to its fair share toward future improvement needs. 3. The City acknowledges Caltrans' recommendation that the proposed project included affordable housing units. 4. The City acknowledges Caltrans' recommendation that alternative transportation policies be applied to the proposed project. The Draft EIR, beginning on page 4.5-10, includes an analysis of potential conflicts to programs, plans, ordinances or policies related to transit, bicycle and pedestrian facilities. For each form of alternative transportation, a less-than-significant impact was identified. 5. The City acknowledges Caltrans' recommendation that Electric Vehicle (EV) charging stations be included in the proposed project. Mitigation Measure GHG-1 requires provision of EV charging capabilities as part of the final project designs. 6. The City acknowledges Caltrans' support for Active Transportation Plans and Smart Growth efforts in support of the state's 2050 Climate goals. As discussed on page 4.5-11, the proposed project is consistent with the City's Active Transportation Plan with respect to development of bicycle facilities. These comments do not address the adequacy or completeness of the Draft EIR; raise environmental issues; and do not request the incorporation of additional information relevant to environmental issues. As such, no further response is required.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
Local Agencies		
B1	**Fresno Irrigation District (January 22, 2024)**	
B1-1	The Fresno Irrigation District (FID) has reviewed the Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project proposing the annexation of 246- acres by the City of Clovis, and the development of 590 single-family residential lots with sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses, APNs: 556-030-14S, 556-040-07S, and 556-040-0BS. FID has the following comments:	This is an introductory comment. This comment summarizes the proposed project, and does not address the adequacy or completeness of the Draft EIR; raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is required.
B1-2	FID previously reviewed and commented on the subject area on March 8, 2022, as Notice of Preparation of Draft Environmental Impact Report for the Heritage Grove Specific Plan and on April 7, 2023, as Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project. Those comments and conditions still apply, and a copy of FID's comments dated April 7, 2023, are attached hereto for your reference. FID has additional comments pertaining to the subject project are as follows:	This comment is noted. The proposed project's consistency with comments submitted by Fresno Irrigation District (FID) on the Notice of Preparation (NOP) of the Draft EIR on the April 7, 2023 comment letter is discussed in more detail below on Response B1-5. This comment does not raise any significant environmental issues related to the proposed project or the analysis contained in the Draft EIR. No further response is required.
B1-3	1. It is FID's understanding that a trail is master-planned along the Enterprise canal bank. This project will be subject to the Master Clovis Trials and Right-of-Way Use Agreement executed by and between FID and the City of Clovis effective March 1, 2022.	The proposed project would be subject to requirements and limitations of the Master Clovis Trails and Right-Of-Way Use Agreement between the City and FID, and would not violate the terms of the Agreement. As such, this comment is noted, but does not raise any significant environmental issues related to the proposed project or the analysis contained in the Draft EIR. No further response is required.
B1-4	Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com.	This comment provides a closing to the comment letter and does not question the adequacy of the analysis included in the Draft EIR. No further response is required.
B1-5	Attachment #1: Fresno Irrigation District (FID) comment letter on Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project, dated April 7, 2023.	This comment includes the comment letter submitted by FID on April 7, 2023 in response to the NOP for the Draft EIR. This comment letter includes a series of requirements and recommendations for the proposed project, which would occur in the near vicinity of the Enterprise Canal, an FID facility. The comment discusses FID's requirements to review and approve any applicable project plans for improvements in the vicinity of the Enterprise Canal and other canal or pipeline facilities belonging to FID, the City and Fresno Metropolitan Flood Control District (FMFCD), as well as any improvements along East Shepherd Avenue, North

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
		Sunnyside Avenue, and North Baron Avenue; FID requirements for the proposed project to grant FID an exclusive easement for land underlying and adjacent to the Canal, as applicable, pursuant to FID policy and Water Code Section 22425; FID requirements to establish the Enterprise Canal right-of-way (ROW) to ensure there is a minimum of 20-feet along all points of the Canal, as applicable, measuring from the top hinge of the Canal to the top of the Canal bank; and FID requirements for the Project Applicant to implement applicable improvements to preserve the Enterprise Canal's urban integrity, including channel stabilization improvements, improvements related to drive banks/maintenance roads for the Enterprise Canal, and encroachments along banks of the Canal. The Project Applicant shall engage FID for review of project improvement plans, including grading and drainage plans, to ensure that project construction would not result in impacts to FID, City, and FMFCD facilities; additionally, the Project Applicant would be subject to payment of applicable fees for review of project plans by the FID. The proposed project would establish and/or preserve required FID easements, ensuring that a minimum distance of 20 feet between the project boundary and the Enterprise Canal is kept. Additionally, if construction of improvements within the Enterprise Canal ROW are required to preserve the Enterprise Canal's urban integrity, the Project Applicant would coordinate with the FID to ensure that design of proposed improvements and review of all improvement plans is compliant with FID policies and requirements. The comment also outlines FID requirements for trail projects planned under the City's Parks Master Plan that would occur along the Enterprise Canal. The proposed project does not include construction of any trails planned under the City's Parks Master Plan. As such, requirements for construction of any trails in the vicinity of the Enterprise Canal are not applicable to the proposed project. However, as applicable, any project improvements occurring in the vicinity of the Enterprise Canal would be subject to FID requirements, restrictions and policies. The comment also mentions that FID would require access to the Enterprise Canal from the future extension of Clovis Avenue. However, the proposed project would

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
		not include the construction of the Clovis Avenue extension; as such, stipulations regarding FID access through Clovis Avenue are not applicable to the proposed project. The comment also indicates that the FMFCD's Hewitt Creek No. 496 traverses the project site, and could be potentially impacted by the proposed project. Hewitt Creek No. 496 is an underground canal that carries stormwater towards FMFCD's drainage basin BY, located directly east of the project site. The Project Applicant would coordinate with the FMFCD and comply with applicable FMFCD requirements for project construction to ensure that implementation of the proposed project does not conflict with FMFCD operations and facilities. The comment also discusses FID's concerns regarding the proposed project's potential impacts to groundwater supply, as well as the proposed project's ability to aid the City in meeting requirements of the Sustainable Groundwater Management Act (SGMA). As discussed in Appendix A of the Draft EIR, the proposed project would aid groundwater recharge in the City through construction of surface and subsurface drainage infrastructure, per design requirements of the City and FMFCD, internally in the project site, as well as along North Baron Avenue, Perrin Avenue, and Hammel Avenue, to collect and direct stormwater generated in the project site towards FMFCD recharge facilities. Furthermore, per the Water Supply Assessment prepared for the proposed project, also included in Appendix A of the Draft EIR, the City will have sufficient water supplies to provide water to this project. Additionally, the proposed project would comply with requirements of the City's Urban Water Management Plan, which includes programs and policies to manage water supplies, including groundwater, in the City in compliance with goals and requirements of SGMA. As such, the proposed project would not substantially decrease groundwater supplies or interfere with groundwater management. This comment is noted, but does not raise any significant environmental issues related to the proposed project or the analysis contained in the Draft EIR. No further response is required.
B1-6	Attachment #2: Notice of Preparation	This comment includes the NOP for the proposed project, circulated on December 19, 2022. The comment is noted, but it does not raise any significant environmental

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	of Draft Environmental Impact Report for the Tract Map 6343 Project, dated December 19, 2022.	issues related to the proposed project or the analysis contained in the Draft EIR. No further response is required.
B1-7	Attachment #3: Notice of Availability of a Draft Environmental Impact Report for Tract Map 6343, dated January 12, 2024.	This comment includes the Notice of Availability (NOA) for the Draft EIR, circulated on January 12, 2024. The comment is noted, but it does not raise any significant environmental issues related to the proposed project or the analysis contained in the Draft EIR. No further response is required.
B1-8	Attachment #4: Notice of Availability of a Draft Environmental Impact Report for Tract Map 6343, dated January 19, 2024 (updated comment period).	This comment includes an updated NOA for the Draft EIR circulated on January 19, 2024. The comment is noted, but it does not raise any significant environmental issues related to the proposed project or the analysis contained in the Draft EIR. No further response is required.
B2	**San Joaquin Valley Air Pollution Control District (February 29, 2024)**	
B2-1	The San Joaquin Valley Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) from the City of Clovis (City) for Tract Map 6343 project. Per the DEIR, the project consists of the annexation of 246 acres for the development of 590 single-family residential lots on 71.54-acres and no development on the remaining 174.46-acres (Project). The Project is located on the southwest corner of East Behymer Avenue and North Sunnyside Avenue, in Clovis, CA. The District offers the following comments at this time regarding the Project:	This comment provides an introduction to the comment letter and does not address the adequacy or completeness of the Draft EIR; does not raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. Such comments do not require a response, pursuant to Section 15088(a) of the State CEQA Guidelines. No further response is necessary.
B2-2	**1) <u>Project Related Emissions</u>** Based on the DEIR, Project specific annual criteria pollutant emissions from construction and operation are not expected to exceed any of the significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI): https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. **1a) Construction Emissions** The District recommends, to further reduce impacts from construction related diesel exhaust emissions, the Project should utilize the cleanest available offroad construction equipment.	This comment acknowledges that the proposed project's construction and operational annual criteria pollutant emissions would not exceed San Joaquin Valley Air Pollution Control District (SJVAPCD) significance thresholds, but encourages the use of the cleanest available offroad construction equipment for the proposed project to further reduce emissions. The air quality analysis in Section 4.2, Air Quality, of the Draft EIR assumed the use of Tier 2 construction equipment as Tier 2 equipment is required by the California Air Resources Board (CARB) In-Use Off-Road Diesel Fueled Fleets Regulation. As such, the proposed project would be required to meet this CARB regulation by using a minimum standard of Tier 2 equipment or better. As demonstrated in Table 4.2.H of the Draft EIR, construction emissions for the proposed project would not exceed the SJVAPCD annual threshold for construction emissions. Additionally, compliance with SJVAPCD Regulation VIII fugitive dust control measures (as required by Regulatory Compliance Measure AIR-2) would further reduce the amount of PM_{10} emissions during the construction period. Therefore, the proposed project would result in less-than-significant impacts

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
		related to project emissions, and the additional mitigation measures proposed in this comment would not be required. No further response is necessary.
B2-3	**2) Clean Lawn and Garden Equipment in the Community** Since the Project consists of residential development, gas-powered residential lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: https://ww2.valleyair.org/grants/clean-green-yard-machines-residential/ and https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/.	This comment states that gas-powered residential lawn and garden equipment have the potential to result in an increase of NO_x and $PM_{2.5}$ emissions and recommends the SJVAPCD's Clean Green Yard Machines (CGYM) program. As demonstrated in Table 4.2.I of the Draft EIR, the proposed project's operational emissions would not exceed the significance criteria for annual ROG, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions; therefore, emission reduction strategies, such as requiring electric lawn and garden equipment, would not be required. Further, all residential units would include exterior outlets, as required by Title 24, which would facilitate the use of electric yard equipment if desired by the future home owners.
B2-4	**3) On-Site Solar Deployment** It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.	This comment recommends that the City should consider incorporating solar power systems as an emission reduction strategy for the proposed project. As discussed on page 4.3-25 of the Draft EIR, the proposed project would comply with the California Green Building Standards Code (CALGreen), regarding energy conservation and green building standards. The proposed project would also incorporate sustainable design features, including, but not limited, to installation of energy-efficient light fixtures, high-efficiency plumbing fixtures, and rooftop photovoltaic (PV) systems and solar panels, consistent with the requirements of Title 24. In addition, Pacific Gas and Electric (PG&E) is the private utility that would supply the proposed project's electricity and natural gas services. In 2022, approximately 40 percent of PG&E's delivered electricity came from renewable sources, including solar, wind, geothermal, small hydroelectric, and various forms of bioenergy. PG&E reached California's 2020 renewable energy goal in 2017 and is positioned to meet the State's 60 percent by 2030 renewable energy mandate set forth in Senate Bill (SB) 100. In addition, PG&E plans to continue to provide reliable service to its customers and upgrade its distribution systems as necessary to meet future demand. Since the proposed project would install rooftop PV systems and solar panels, the proposed project would be consistent with the suggestions included in this comment.
B2-5	**4) District Rules and Regulations**	This comment provides information on SJVAPCD rules and regulations and states that current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes. The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.	To identify other SJVAPCD rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the Small Business Assistance (SBA) Office. This comment is noted. The proposed project would comply with all applicable SJVAPCD rules and regulations.
B2-6	**4a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources** Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT). This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.	This comment states that the proposed project may be subject to SJVAPCD Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and would require SJVAPCD permits. This comment also states that prior to construction, the Project Applicant should submit to the SJVAPCD an application for an Authority to Construct (ATC) and Permit to Operate (PTO). This comment is noted. The proposed project is a residential project and does not propose installation of any new or modified stationary sources. Therefore, SJVAPCD Rules 2010 and 2201 would not be applicable to the proposed project.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
B2-7	**4b) District Rule 9510 - Indirect Source Review (ISR)** The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 50 dwelling units of residential. The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions. Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design. One AIA application should be submitted for the entire Project. Information about how to comply with District Rule 9510 can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview The AIA application form can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/ District staff is available to provide assistance, and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.	This comment states that the project is subject to SJVAPCD Rule 9510 and that an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As stated on page 4.2-19 of the Draft EIR, compliance with Rule 9510 is separate from the CEQA process. However, the proposed project is required to comply with Rule 9510 and submit an AIA to the SJVACPD. The information provided in this comment is noted.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
B2-8	**4c) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)** In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at: https://ww2.valleyair.org/compliance/demolitionrenovation/	This comment states that in the event an existing building would be renovated, partially demolished or removed, the proposed project would be subject to SJVAPCD Rule 4002. The proposed project would include demolition of existing onsite structures; therefore, the proposed project would be required to comply with SJVAPCD Rule 4002.
B2-9	**4d) District Rule 4601 (Architectural Coatings)** The Project will be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf	This comment states that the proposed project may be subject to SJVAPCD Rule 4601 (Architectural Coatings) since it may utilize architectural coatings. This comment is noted. The proposed project would comply with all required SJVAPCD rules and regulations.
B2-10	**4e) District Regulation VIII (Fugitive PM10 Prohibitions)** The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities. Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5- acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written	This comment states that the proposed project may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities, as described in Regulation VIII, specifically Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). This comment is noted. The proposed project would comply with all applicable SJVAPCD rules and regulations. In addition, as indicated in Section 4.2, Air Quality, of the Draft EIR, the proposed project would be required to be consistent with SJVAPCD Regulation VIII, as required by Regulatory Compliance Measure AIR-2.

Table 3.A: Comments and Responses Matrix

Letter/ Comment Number	Comment	Response
	notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950. The application for both the Construction Notification and Dust Control Plan can be found online at: https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx Information about District Regulation VIII can be found online at: https://ww2.valleyair.org/dustcontrol	
B2-11	**4f) District Rule 4901 - Wood Burning Fireplaces and Heaters** The purpose of this rule is to limit emissions of carbon monoxide and particulate matter from wood burning fireplaces, wood burning heaters, and outdoor wood burning devices. This rule establishes limitations on the installation of new wood burning fireplaces and wood burning heaters. Specifically, at elevations below 3,000 feet in areas with natural gas service, no person shall install a wood burning fireplace, low mass fireplace, masonry heater, or wood burning heater. Information about District Rule 4901 can be found online at: https://ww2.valleyair.org/compliance/residential-wood-smoke-reduction-program/	This comment describes SJVAPCD Rule 4901, which limits installation of new wood burning fireplaces and heaters. The proposed project would not include any new wood burning fireplaces or heaters. As such, the proposed project would comply with SJVAPC Rule 4901.
B2-12	**4g) Other District Rules and Regulations** The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).	This comment states that the proposed project may be subject to the following SJVAPCD rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). This comment is noted. The proposed project would comply with all required SJVAPCD rules and regulations.
B2-13	**5) District Comment Letter** The District recommends that a copy of the District's comments be provided to the Project proponent. If you have any questions or require further information, please contact Eric McLaughlin by e-mail at eric.mclaughlin@valleyair.org or by phone at (559) 230-5808.	This comment provides a closing to the comment letter and does not address the adequacy or completeness of the Draft EIR; does not raise environmental issues; and does not request the incorporation of additional information relevant to environmental issues. No further response is necessary.

This page intentionally left blank

4.0 DRAFT EIR TEXT REVISIONS

This chapter presents specific changes to the text of the Draft EIR that are being made to clarify any errors, omissions, or misinterpretation of materials in the Draft EIR in response to comments received during the public review period and clarifications that are City-initiated. In no case do these revisions result in a greater number of impacts or impacts of a greater severity than those set forth in the Draft EIR. Further, the clarifications and corrections provided in the following revisions do not constitute significant new information requiring recirculation of the Draft EIR. Where revisions to the main text are called for, the page and paragraph are set forth, followed by the appropriate revision. Added text is indicated with double-underlined text, and deleted text is shown in ~~strikethrough~~ text.

SECTION 4.1, AGRICULTURAL RESOURCES

Mitigation Measure AG-2, on page 4.1-12, is amended as follows:

Mitigation Measure AG-2 Prior to issuance of building permits, the Project Applicant shall~~would need to~~ petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the Fresno County Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.

APPENDIX A, NOTICE OF PREPARATION AND INITIAL STUDY

Mitigation Measure BIO-1, on page 3-15 of the Initial Study is amended as follows:

Mitigation Measure BIO-1 ***Nesting Bird Surveys and Active Nest Avoidance.*** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than ~~15~~10 days prior to each phase of

clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.

APPENDIX H

PUBLIC COMMENT LETTERS ON THE DRAFT EIR

This page intentionally left blank

DocuSign Envelope ID: 44C3B029-146D-40BE-8DD6-C1EB873027BB

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

February 23, 2024

Lily Cha-Haydostian, MPA-Senior Planner
City of Clovis, Planning Division
1033 Fifth Street
Clovis, California 93612
(559) 324-2335
lilyc@ci.clovis.ca.us

Subject: Tract Map (TM) 6343 Project (Project)
Draft Environmental Impact Report (DEIR)
State Clearinghouse No.: 2022120483

Dear Lily Cha-Haydostian:

The California Department of Fish and Wildlife (CDFW) received a DEIR from the City of Clovis for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

A1-1

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statue for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id*., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological

A1-2

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

DocuSign Envelope ID: 44C3B029-146D-40BE-8DD6-C1EB873027BB

expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be required.

A1-2

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

A1-3

PROJECT DESCRIPTION SUMMARY

Proponent: City of Clovis

Objective: The Proposed Tract Map 6343 (Project) would consist of the annexation of 246 acres from Fresno County to the City of Clovis, and the development of 590 residential lots within the 71.54-acre Project site constructed in 3 phases. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces would be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. Associated entitlements include Annexation to the City of Clovis and a Planned Development Permit, General Plan Amendment, Prezone, and Tract Map approval to allow for 590 single-family residences. To facilitate the future development of the subject property, the proposed Project will also require dedications and/or acquisitions for public street rights-of-way and utility easements, as well as the construction of public facilities and infrastructure.

A1-4

In addition, development of the Project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the

DocuSign Envelope ID: 44C3B029-146D-40BE-8DD6-C1EB873027BB

Perrin Avenue frontage. The proposed Project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot-long extension of Baron Avenue south of East Behymer Avenue.

A1-4

Location: The Tract Map 6343 Project site is located directly north of the City of Clovis limit line at the southwest corner of the East Behymer Avenue and North Sunnyside Avenue intersection. The Project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The Project site is in the northwest quadrant of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian (MDBM).

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the City of Clovis in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project.

There are special status species that may be present at the Project site that were not appropriately evaluated in the DEIR for this Project. CDFW recommends that these resources be evaluated and addressed prior to any approvals that would allow ground-disturbing activities or land use changes. Specifically, CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the Federal and State threatened (FT/ST) California tiger salamander (*Ambystoma californiense*), and the State candidate endangered (SCE) Crotch's bumblebee (*Bombus crotchii*).

A1-5

In order to adequately assess any potential impacts to biological resources, focused biological surveys should be conducted by a qualified biologist during the appropriate survey period(s) in order to determine whether any special-status species or resources may be present within the Project area. Properly conducted biological surveys are also necessary to identify Project-related impacts to biological resources and assist with determining the need for species and resource specific minimization and compensatory mitigation measures. Additionally, adequate biological surveys are necessary to assist with determining the need for the Project to obtain an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b)

COMMENT 1: California Tiger Salamander

A1-6

The DEIR does not include an appropriate evaluation for the California tiger salamander (CTS). CDFW's Notice of Preparation (NOP) comment letter for the Project, which was sent on January 17, 2023, recommended protocol-level surveys for CTS. As it appears the biological surveys conducted in support of the DEIR did

not incorporate CDFW's survey recommendations, CDFW reiterates the recommendation to conduct the surveys outlined in CDFW's NOP comment letter, and, if necessary, including the avoidance, mitigation, and minimization measures recommended in the letter.

A1-6

COMMENT 2: Crotch's Bumble Bee (CBB)

The DEIR also does not include any evaluation for Crotch's bumblebee (CBB) which was included in CDFW's January 17, 2023, NOP comment letter. Survey recommendations (updated protocol) for CBB have changed from the recommendations in the NOP letter. CDFW continues to recommend that CBB surveys be conducted according to the most recent protocol and the information found from those used to make appropriate conclusions in the DEIR (CDFW 2023).

In addition to conducting protocol surveys for CBB, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 1: CBB Surveys Prior to Construction

CDFW continues to recommend conducting a baseline protocol survey to adequately inform the DEIR and support conclusions drawn therein relative to CBB. In addition to performing the baseline surveys recommended by CDFW during the NOP comment period, CDFW recommends that additional surveys, following the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species, be repeated the blooming period immediately prior to construction.

A1-7

Recommended Mitigation Measure 2: CBB Avoidance Buffer

If surveys cannot be completed, CDFW recommends that **all** small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid unauthorized take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

Recommended Mitigation Measure 3: CBB Take Authorization

If CBB is identified during surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities may be warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).

COMMENT 3: Nesting Birds

Mitigation Measure BIO-1: Nesting Bird Surveys and Active Nest Avoidance states that a qualified biologist shall conduct a nesting bird survey no more than 15 days prior to each phase of clearing activities. CDFW recommends that a qualified biologist conduct a nesting bird survey no more than 10 days prior to each phase of clearing activities.

A1-8

II. Editorial Comments and/or Suggestions

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

A1-9

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

A1-10

CDFW appreciates the opportunity to comment on the Project to assist the City of Clovis Planning Division in identifying and mitigating the Project's impacts on biological resources.

A1-11

A1-11

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). If you have any questions, please contact Kelley Nelson, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Kelley.Nelson@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
FA83F09FE08945A...

Julie A. Vance
Regional Manager

ec: State Clearinghouse
Governor's Office of Planning and Research
State.Clearinghouse@opr.ca.gov

REFERENCES

California Department of Fish and Wildlife. 2023. Survey considerations for California Endangered Species Act Candidate Bumble Bee Species https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline. California Department of Fish and Wildlife, Sacramento, California, USA.

DocuSign Envelope ID: 44C3B029-146D-40BE-8DD6-C1EB873027BB

Attachment 1

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: Tract Map 6343 Project

SCH No.: 2022120483

A1-12

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
CBB	
Recommended Mitigation Measure 1: CBB surveys prior to construction	
Recommended Mitigation Measure 3: CBB take authorization	
During Construction	
Recommended Mitigation Measure 2: CBB avoidance buffer	

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

DISTRICT 6 OFFICE
1352 WEST OLIVE AVENUE |P.O. BOX 12616 |FRESNO, CA 93778-2616
(559) 908-7064 | FAX (559) 488-4195 | TTY 711
www.dot.ca.gov

March 4, 2024

FRE-168-R7.361
DEIR – Draft EIR
Draft Environment Impact Report Tract Map 6343
SCH# 2022120483
https://ld-igr-gts.dot.ca.gov/district/6/report/29548

SENT VIA EMAIL

Lily Cha-Haydostian, MPA | Senior Planner
Planning and Development Services Department
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Dear Mx. Lily Cha-Haydostian:

Thank you for the opportunity to review the Draft Environmental Impact Report (DEIR) for Tract Map (TM) 6343 which proposes to develop 71.54 acres into a 590 single-family residential development. The project is located south if Behymer Avenue between Minnewawa Avenue and Sunnyside Avenue, approximately 2.7 miles north of the State Route (SR) 168 and Herndon Avenue interchange.

This project was previously reviewed as part of the Transportation Impact Analysis (TIA) and the Scope of Work for a TIA with our office submitting comment letters dated April 14, 2023, and June 22, 2022, respectively. **A2-1**

Caltrans provides the following comments consistent with the State's smart mobility goals that support a vibrant economy and sustainable communities:

Specific Comments:

1. The study lists the Near-Term (2026) without Project Peak Hour Traffic Volume for the eastbound State Route 168 off-ramp right turns to be 903 and the Cumulative (2046) without Project Peak Hour Traffic Volume for the eastbound State Route 168 off-ramp right turns to be 935 (at Intersection 14 northbound right-turns). Given the amount of growth in the area and the amount of the additional land annexed by the City of Clovis (174.46 acres of remaining annexation area surrounding the project site), this traffic volume increase appears underestimated. **The forecasted volumes should be confirmed**. **A2-2**

2. The TIA mitigation provided for Intersections 13, 14, 15 was stated as "using signal timing coordination and optimization" and that would "eliminate the queuing issues." However, signal timing sheets were not provided to substantiate the results. Also, the reduction of control delay for Insertion 15 (Herndon Avenue / Clovis Avenue) from Cumulative Year (2046) with Project - PM Pk Hour to Cumulative Year (2046) with Project Mitigation - PM Pk Hour (90 4 seconds to 49.0 seconds) seems optimistic. **Signal timing sheets should be provided to corroborate these findings**. **A2-3**

General Comments:

1. Caltrans highly recommends that the City consider creating a VMT Mitigation Impact Fee to help reduce potential impacts on the State Highway System.

2. It is recommended that the project contribute to all applicable Impact Fee programs, such as the City's Development Fee and the Regional Transportation Mitigation Fee (RTMF) program to ensure that the developments contribute to its fair share toward future improvement needs.

3. Caltrans recommends the project proponents consider working with the City to convert a portion of the planned residential units to affordable housing units.

4. Alternative transportation policies should be applied to the development. An assessment of multimodal facilities should be conducted to develop an integrated multimodal transportation system to serve and help alleviate traffic congestion resulting from the project and related development in the area of the City. The assessment should include the following: **A2-4**

   a. Pedestrian walkways should not only be limited to the project's internal connectivity but be connected to existing walkways and transit facilities outside the project area.

   b. The project should consider coordinating connections to local and regional bicycle pathways to encourage the use of bicycles for commuter and recreational purposes.

   c. If transit is not available within 1/4-mile of the project area, transit should be extended to provide services to high-activity centers of the project.

5. As part of the statewide effort to reduce greenhouse gas emissions, Caltrans recommends the project proponents consider the installation of Level 2 Electric Vehicle (EV) and DC Fast Charging EV charging stations into the housing units.

A2-4

6. Active Transportation Plans and Smart Growth efforts support the state's 2050 Climate goals. Caltrans supports reducing VMT and GHG emissions in ways that increase the likelihood that people will use and benefit from a multimodal transportation network

If you have any other questions, please call or email Christopher Xiong at (559) 908-7064 or Christopher.Xiong@dot.ca.gov.

Sincerely,

DAVID PADILLA, Branch Chief
Transportation Planning – North

2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

January 22, 2024

Lily Cha-Haydostian
Planning and Development Services Dept.
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Notice of Availability of a Draft Environmental Impact Report for Tract Map 6343 Project
S/E Behymer and Minnewawa avenues
FID's Enterprise No. 109

Dear Mrs. Cha-Haydostian:

The Fresno Irrigation District (FID) has reviewed the Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project proposing the annexation of 246-acres by the City of Clovis, and the development of 590 single-family residential lots with sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses, APNs: 556-030-14S, 556-040-07S, and 556-040-08S. FID has the following comments: B1-1

FID previously reviewed and commented on the subject area on March 8, 2022, as Notice of Preparation of Draft Environmental Impact Report for the Heritage Grove Specific Plan and on April 7, 2023, as Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project. Those comments and conditions still apply, and a copy of FID's comments dated April 7, 2023, are attached hereto for your reference. FID has additional comments pertaining to the subject project are as follows: B1-2

1. It is FID's understanding that a trail is master-planned along the Enterprise canal bank. This project will be subject to the Master Clovis Trials and Right-of-Way Use Agreement executed by and between FID and the City of Clovis effective March 1, 2022. B1-3

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com. B1-4

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment

G:\Agencies\Clovis\EIR\Tract Map 6343\NOA - Draft EIR TM6343 FID Comments.doc

BOARD OF DIRECTORS President RYAN JACOBSEN Vice-President JERRY PRIETO, JR. CHRISTOPHER WOOLF
GEORGE PORTER GREGORY BEBERIAN General Manager BILL STRETCH

2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

April 7, 2023

Lily Cha
Planning and Development Services Dept.
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project
S/E Behymer and Minnewawa avenues
FID's Enterprise No. 109

Dear Ms. Cha:

The Fresno Irrigation District (FID) has reviewed the Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project proposing the annexation of 246-acres by the City of Clovis, and the development of 590 single-family residential lots with sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses, APNs: 556-030-14S, 556-040-07S, and 556-040-08S. FID has the following comments:

Summary of Requirements:

- Grant of Easement w/ 20-feet full width drive banks
- Canal Bank Improvements
- Channel Improvements
- Drive Approaches per FID Detail No. 1-02
- Existing Encroachments removed and/or relocated if any
- Review and Approval of all Plans
- Execute additional Agreement(s), if necessary
- Project Fees
- No Encroachments (i.e. trees, monuments, fences, PUE, etc.)

B1-5

FID previously reviewed and commented on the subject area on March 8, 2022, as Notice of Preparation of Draft Environmental Impact Report for the Heritage Grove Specific Plan. Those comments and conditions still apply, and a copy of FID's can be provided upon request. FID additional comments pertaining to the subject project are as follows:

Area of Concern

1. FID's active Enterprise No. 109 Canal runs northwesterly, traversing the west side of the subject property and a portion of the side of the subject property, as shown on the attached FID exhibit map and will be impacted by the future development. FID records

BOARD OF DIRECTORS President RYAN JACOBSEN Vice-President JERRY PRIETO, JR. CHRISTOPHER WOOLF
GEORGE PORTER GREGORY BEBERIAN General Manager BILL STRETCH

do not show a recorded easement; however, FID does own an easement and the width is as shown on FID's attached Standard Detail Page No. 1-01. Should this project include any street and or utility improvements along Shepherd Avenue, Sunnyside Avenue, Baron Avenue or in the vicinity of the canal, FID requires it review and approve all plans.

2. FID requires that, within the limits of the proposed project [and its remainder], the landowner grant an exclusive easement for the land underlying the canal and associated area along the canal required for maintenance pursuant to Water Code Section 22425 and FID policy. FID's District Canal Right-of-Way Requirements sheet is enclosed for your reference. The proposed easement (width) will depend on several factors including: 1) Width of canal, 2) height of canal banks, 3) final alignment of canal, 4) additional space needed where roads/avenues intersect canal, etc.

3. FID requires that the Engineer/Land Surveyor use the inside top hinge of the canal to define the edge of FID's right-of-way such that FID has a minimum of 20-feet at all points along the top of the canal bank. There are no minimum or suggested numbers of survey shots to take but, there must be enough survey points such that the top inside hinge of the canal bank is properly identified. Before finalizing the Final Maps, the Engineer/Land Surveyor will need to stake both the inside top hinge and the right-of-way/property for FID Staff to field evaluate an adequate width. FID staff must field verify the right-of-way/property boundary and the hinge line edge before signing plans to ensure that there are enough survey points to properly define the canal.

4. Typically, for any type of development that impacts a large open canal or is adjacent to one such as the Enterprise Canal, FID requires the developer to improve the canal with either concrete lining, encasing the canal in a box culvert, or other approved means to protect the canal's integrity for an urban setting. FID does not have sufficient information to determine what kind of improvements will ultimately be required as part of the development. The engineers working on the project and FID's engineering staff must meet to discuss specific requirements as discussed below. In order to meet the "urban" standards for the canal, FID will require the following minimum conditions: B1-5

    a. Channel Stabilization: The proposed plan does not indicate any improvements to the Canal. If the Developer is not willing to concrete line the Canal or place it underground within a box culvert, they must come up with another means acceptable to and approved by FID to protect the Canal's integrity. On similar projects, Developers typically propose the following:

        i. Surrounding Development – All proposed building pad elevations must be a minimum of 12-inches above the canal's high water, unless separated by a roadway with curb and gutter.

        ii. Freeboard – FID typically requires between 1.0 to 1.5 feet of freeboard. Because the Canal is used to route stormwaters, and is one of the larger canals used to convey the stormwater, FID will require a minimum of 1.5

feet of freeboard and a maximum of 2.0 feet. The Developer will be required to either import or export material to match FID's standards.

iii. Maintenance – this reach of Canal does have a history of high loads of sediment deposits which requires periodic dredging. FID will typically dredge the Canal and deposit the spoils on top of the banks to dry out. Once the spoil has dried, FID will flatten the spoil as time permits. This reach of Canal also has large volumes of trash, debris, shopping carts that are deposited into the Canal. FID's crews will typically remove the trash at the Shepherd Avenue bridge and another crew will come by to remove the trash. The hauling off of this material may occur several weeks after the trash has been placed on the side of the canal, and the trash may be considered a nuisance (sight and smell). If the Developer and/or City require a different level of maintenance effort, they will need to enter into an agreement for that purpose. The City and/or Developer will be responsible to fund the "higher level" of maintenance.

b. Drive banks/maintenance roads and encroachments (both banks):

i. Both banks must be of full-width cross section to the outside limits of the canal easement.

ii. One or both of the drive banks must be sloped a minimum of 2% away from the canal, 4% maximum, with provisions made for rainfall. Drainage will not be accepted into the Canal and must be routed away from FID property/drive banks. Runoff must be conveyed to nearby public streets or drainage system by drainage swales or other FID acceptable alternatives.

B1-5

iii. One or both of the drive banks shall be overlaid with 3 inches of Class II aggregate base for all-weather access and for dust suppression.

iv. Encroachments - All existing trees, bushes, debris, fencing, and other structures must be removed within FID's property/easement.

5. Trail - It is FID's understanding that a trail is master-planned along the Enterprise canal bank. As with other developments with trails proposed along the canals, FID will not allow the trail to encroach/overlap FID's canal easement. The following requirements are intended for trail projects adjacent to FID-owned properties and right-of-ways for open canals:

a. FID will not allow the trail easement to be in common use with FID-owned property or easements.

b. FID requires all trail improvements be placed outside of FID-owned properties and easements.

c. FID will not allow any portion of a tree canopy to encroach within its properties or easements.

d. FID's canals will not accept any drainage from the trail or the canal bank.

e. FID may require some improvements be made to the canal depending on the existing canal condition, the proposed trail, and the adjacent development.

6. A Trail fence between Trail and Canal is required unless an agreement is in place between City of Clovis and FID.

7. If a fence will be installed between the development and open canal, a block/masonry wall shall be required. Chain-link and wood fencing will no longer be accepted for urban developments.

8. Should a trail or walkway be placed adjacent to the canal, FID will require a minimum 4 feet tall pedestrian barrier for this development, located outside of its right-of-way, on both sides of the canal, for the length of the development. FID is open to suggestions regarding design.

9. Canal Access – FID will require access from future Clovis Avenue. In order to access the maintenance road with our larger equipment, FID requires a drive approach wide enough to accommodate the equipment. FID proposes a 50-foot wide drive approach narrowing to a 20 feet wide drive bank (See attached "Drive Approach in Urban Areas" Detail No. 1-02). The 50-foot width is defined as starting from the end portion of the bridge/railing outward (away from the bridge). Every road and canal intersection is different and therefore each access will be different. The major factors affecting the proposed width will be the angle of the road intersecting the Canal, grade of canal bank vs. City road, median vs. no median, etc. B1-5

Fresno Metropolitan Flood Control District

1. FMFCD's Hewitt Creek No. 496 traverses the subject property as shown on the attached FID exhibit map and will be impacted by the proposes project. FID's recommends contacting FMFCD for further comments/requirements.

General Comments

1. FID requires the applicant and or the applicant's engineer contact FID at their earliest convenience to discuss specific requirements.

2. FID requires its easements be shown on all maps/plans with proper recording information, and that FID be made a party to signing the final map.

3. FID does not allow FID owned property or easements to be in common use with public utility easements but will in certain instances allow for its property to be in common use with landscape easements and trails if the City of Clovis enters into the appropriate agreement.

4. FID requires the applicant to submit for FID's approval a grading and drainage plan which shows that the proposed development will not endanger the structural integrity of the Canal, or result in drainage patterns that could adversely affect FID.

5. FID requires its review and approval of all improvement plans which affect its property/easements and canal/pipeline facilities including but not limited to Sewer, Water, Fresno Metropolitan Flood Control District (FMFCD), Street, Landscaping, Dry Utilities, and all other utilities.

6. Footings of retaining walls shall not encroach onto FID property/easement areas.

7. FID requires its review and approval of all Private and Public facilities that encroach into FID's property/easement. If FID allows the encroachment, the Public or Private party will be required to enter into the appropriate agreement which will be determined by FID.

8. FID is concerned that the proposed development may negatively impact local groundwater supplies. The area was historically agricultural land and a significant portion of its water supply was imported surface water, supplemented by groundwater pumping. Under current circumstances the project area is experiencing a modest but continuing groundwater overdraft. Should the proposed development result in a conversion from imported surface water to groundwater, this deficit will increase. FID recommends the City of Clovis require the proposed development balance anticipated groundwater use with sufficient recharge of imported surface water in order to preclude increasing the area's existing groundwater overdraft problem. B1-5

9. California enacted landmark legislation in 2014 known as the Sustainable Groundwater Management Act (SGMA). The act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. FID and the City of Clovis are members of the North Kings Groundwater Sustainability Agency which will manage the groundwater basin within the FID service area. This area is completely reliant on groundwater pumping and SGMA will impact all users of groundwater and those who rely on it. The City of Clovis should consider the impacts of the development on the City's ability to comply with requirements of SGMA.

10. As with developer projects, there will be considerable time and effort required of FID's staff to plan, coordinate, engineer, review plans, prepare agreements, and inspect the project. FID's cost for associated plan review will vary and will be determined at the time of the plan review.

11. The above comments are not to be construed as the only requests FID will have regarding this project. FID will make additional comments and requests as necessary as the project progresses.

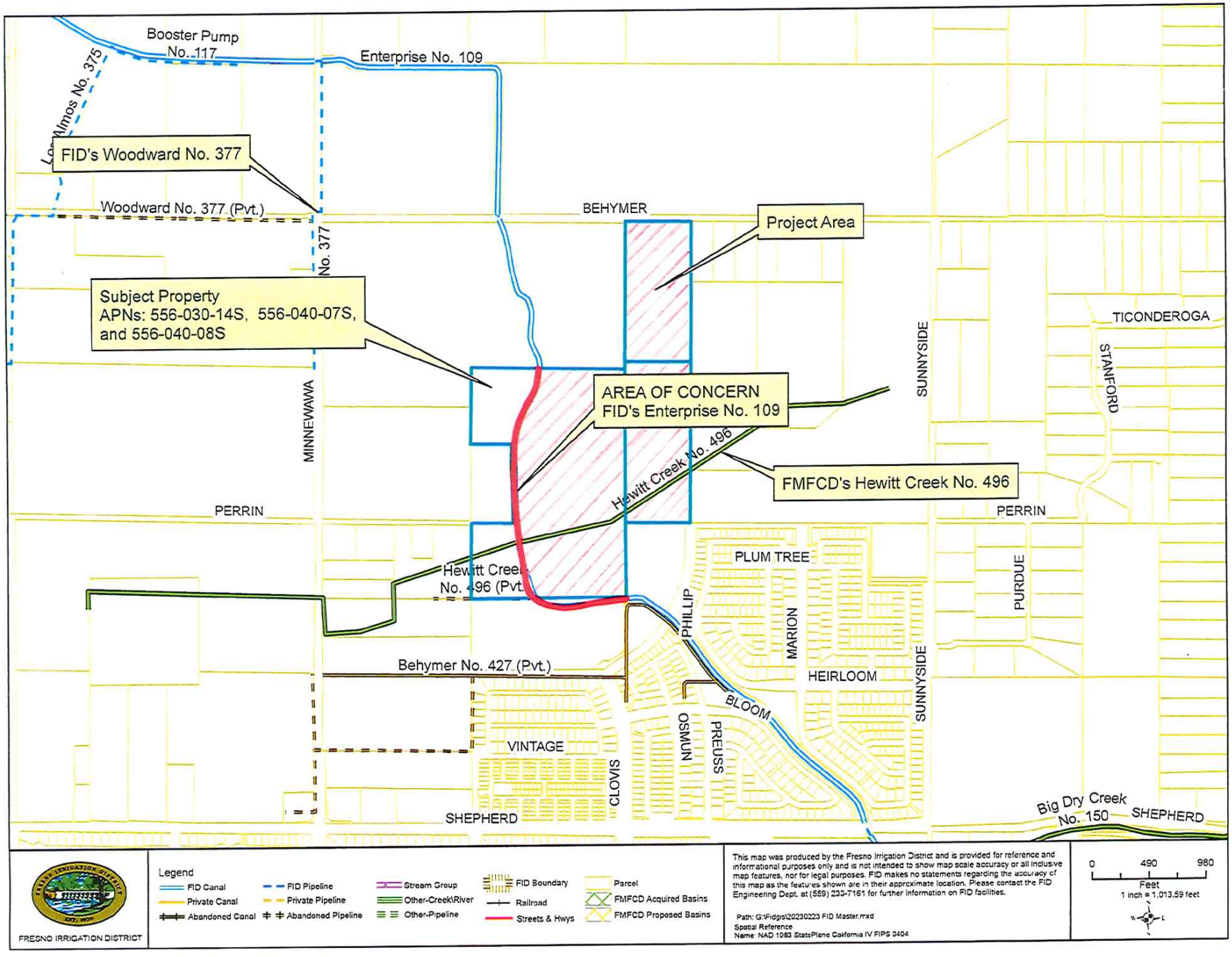
Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com.

B1-5

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment


Booster Pump No. 117
Enterprise No. 109
Los Almos No. 375
FID's Woodward No. 377
Woodward No. 377 (Pvt.)
BEHYMER
Project Area
No. 377
Subject Property
APNs: 556-030-14S, 556-040-07S, and 556-040-08S
AREA OF CONCERN
FID's Enterprise No. 109
SUNNYSIDE
TICONDEROGA
STANFORD
MINNEWAWA
Hewitt Creek No. 496
FMFCD's Hewitt Creek No. 496
PERRIN
PERRIN
Hewitt Creek No. 496 (Pvt.)
PLUM TREE
PHILLIP
MARION
PURDUE
HEIRLOOM
Behymer No. 427 (Pvt.)
BLOOM
SUNNYSIDE
OSMUN
PREUSS
VINTAGE
CLOVIS
SHEPHERD
Big Dry Creek No. 150
SHEPHERD
FRESNO IRRIGATION DISTRICT
Legend
FID Canal
Private Canal
Abandoned Canal
FID Pipeline
Private Pipeline
Abandoned Pipeline
Stream Group
Other-Creek\River
Other-Pipeline
FID Boundary
Railroad
Streets & Hwys
Parcel
FMFCD Acquired Basins
FMFCD Proposed Basins
This map was produced by the Fresno Irrigation District and is provided for reference and informational purposes only and is not intended to show map scale accuracy or all inclusive map features, nor for legal purposes. FID makes no statements regarding the accuracy of this map as the features shown are in their approximate location. Please contact the FID Engineering Dept. at (559) 233-7161 for further information on FID facilities.
Path: G:\Fidgis\20230223 FID Master.mxd
Spatial Reference
Name: NAD 1983 StatePlane California IV FIPS 0404
0
490
980
Feet
1 inch = 1,013.59 feet

B1-5

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE TRACT MAP 6343 PROJECT

Date: December 19, 2022

To: Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

Subject: Notice of Preparation of Draft Environmental Impact Report for the Tract Map 6343 Project

Lead Agency: City of Clovis

Project Title: Tract Map 6343

Project Applicant: Wilson Premier Homes, Inc

Contact: Lily Cha, Senior Planner
Planning Division
1033 Fifth Street
Clovis, CA 93612
(559) 324-2335
lilyc@cityofclovis.com

Comment Period: December 19, 2022 to January 17, 2023

B1-6

PURPOSE OF NOTICE

The City of Clovis (City) is the lead agency responsible for preparation of an Environmental Impact Report (EIR) for the Tract Map 6343 Project (proposed project). Pursuant to provisions of the California Environmental Quality Act (CEQA), the City has prepared this Notice of Preparation (NOP) for the proposed project. Once a decision is made to prepare an EIR, the lead agency must prepare a NOP to inform all responsible and trustee agencies that an EIR will be prepared (CEQA Guidelines Section 15082). The purpose of this NOP is to provide agencies, interested parties, and organizations with sufficient information describing the proposed project and its potential environmental effects to enable meaningful input related to the scope and content of information to be included in the EIR.

PUBLIC REVIEW PERIOD

As required by Section 15082 of the CEQA Guidelines, this NOP has been prepared and distributed to solicit comments from interested parties and potential responsible and trustee agencies and other public agencies so that project-related concerns relevant to each agency's statutory responsibilities in connection with the proposed project can be addressed in the EIR, as well as any related issues from interested parties other than potential responsible and trustee agencies, including other agencies and affected members of the public. The EIR will be the environmental document of reference for Responsible and Trustee Agencies when considering subsequent discretionary approvals.

This NOP is being circulated for public review and comment for a period of 30 days beginning December 19, 2022. The City requests that any potential responsible or trustee agencies responding to this NOP reply in a manner consistent with Section 15082(b) of the CEQA Guidelines, which requires submittal of any comments in response to this notice no later than 30 days after receipt of the NOP. Comments in response to this NOP will be accepted through 5:00 p.m., January 17, 2023.

Please send your written comments to Ms. Cha and include your name, address, phone number, and/or email address so that we may contact you for clarification, if necessary.

Copies of the Notice of Preparation may be reviewed at the following locations:

- Clovis Regional Library, 1155 5th Street, Clovis, during library hours;
- City of Clovis, Planning and Development Department, 1033 Fifth Street, Clovis, between 8:00 a.m. and 4:00 p.m.; or
- Online at: https://cityofclovis.com/planning-and-development/planning/ceqa/

B1-6

PROJECT DESCRIPTION

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of 590 residential lots, averaging 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis.

The proposed project would be developed in three phases.

- **Phase 1.** Phase 1 would include the development of 136 single-family residential units with an average size of 1,514 square feet per unit. Phase 1 would be located on the southern portion of the project site and would be accessed through one ingress and egress driveway located on Perrin Avenue. Phase 1 would include the construction of 44 parking spaces, an 8,745 square-foot community pool and recreation area, a 13,930 square-foot community park, 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin

Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

- **Phase 2.** Phase 2 would include the development of 214 single-family residential units with an average size of 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress driveway located along the future southern extension of Baron Avenue, and one driveway along Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

- **Phase 3.** Phase 3 of the proposed project would include the development of 240 single-family residential units with an average size of 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress driveways located along the future southern extension of Baron Avenue, and through one gated driveway located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985 square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue.

In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot long extension of Baron Avenue south of East Behymer Avenue.

B1-6

ALTERNATIVES TO BE ANALYZED IN THE EIR

In accordance with Section 15126.6 of the CEQA Guidelines, the EIR will assess a range of reasonable alternatives to the proposed project. The range of alternatives to be addressed will include alternatives that are specifically required by CEQA (e.g., the No Project Alternative), as well as other alternatives intended to reduce or eliminate potentially significant impacts, as identified through the coordinated consultation and planning process.

POTENTIAL ENVIRONMENTAL EFFECTS

The EIR will evaluate the potential environmental impacts of the proposed project, after having first established the environmental setting, or baseline, for the environmental analysis. The significance of potential impacts, cumulative impacts, and appropriate mitigation measures associated with the proposed project would be thoroughly discussed in the EIR.

The Initial Study prepared for this EIR evaluated the environmental issue topics required by CEQA. The individual environmental topics evaluated in the Initial Study include the following:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing

- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

The Initial Study identified potentially significant environmental issue topics that will be analyzed in more detail in the EIR. The topics include:

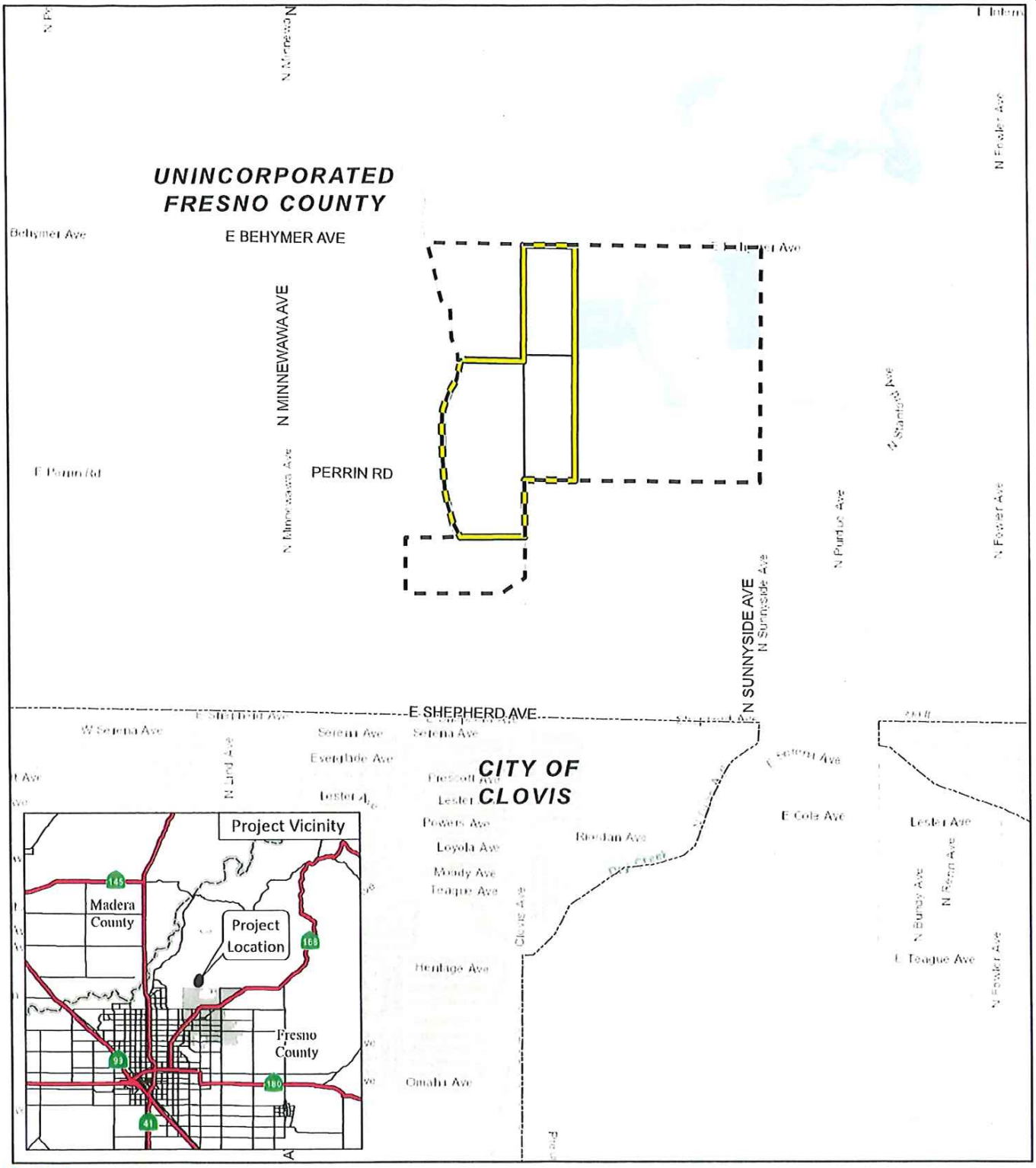
- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation

B1-6

PUBLIC SCOPING MEETING

The City will hold a public scoping meeting to inform interested parties about the proposed project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. The meeting time and location is as follows:

City of Clovis Council Chamber
1033 Fifth Street
Clovis, CA 93612
Date: Thursday, January 12, 2023
Time: 6:00 p.m.



LSA

FIGURE 1-1

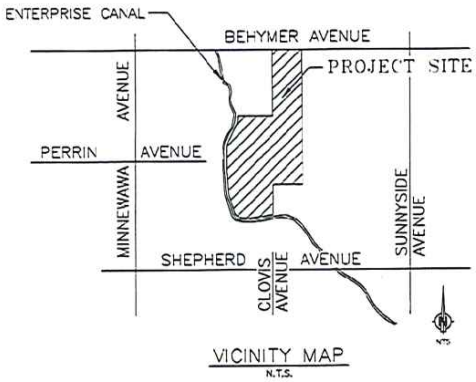
SOURCE: Esri Streetmap (2021)

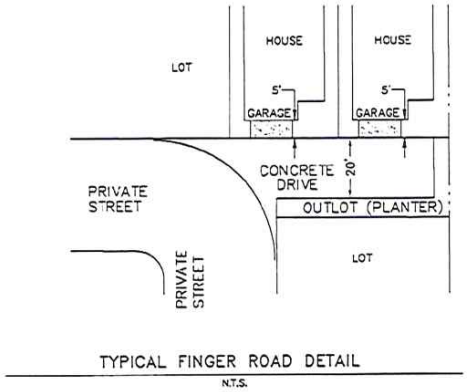
\\lsaazfiles.file.core.windows.net\images\CIT2201\GIS\MXD\Regional_Local_Context.mxd (12/6/2022)

Tract Map 6343

Regional and Local Context

B1-6





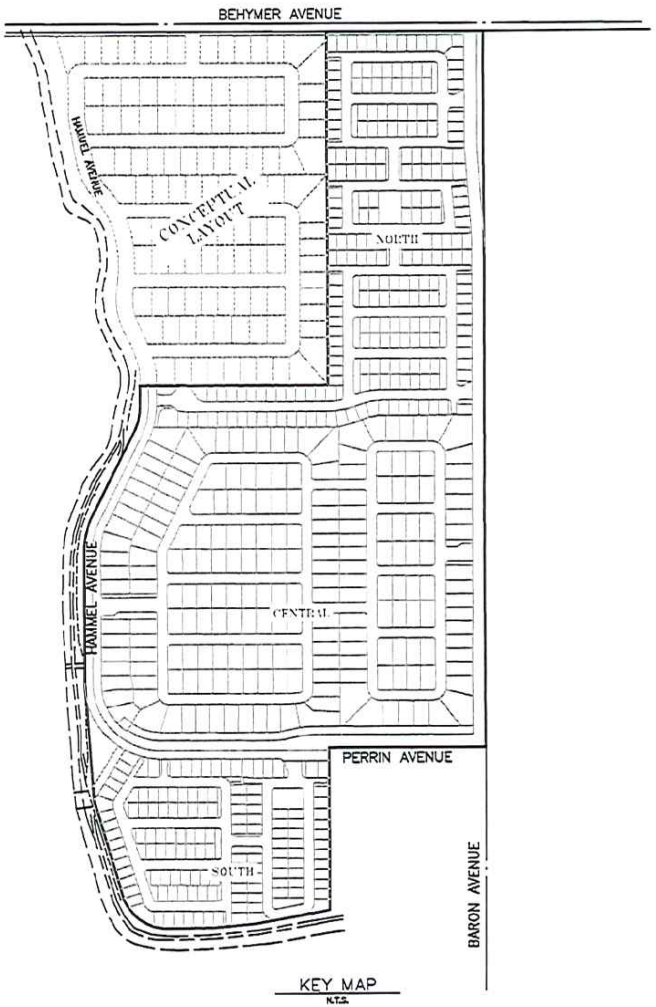


FIGURE 1-3

LSA

NOT TO SCALE

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\General Site Plan.ai (9/22/2022)

Tract Map 6343
General Site Plan

B1-6

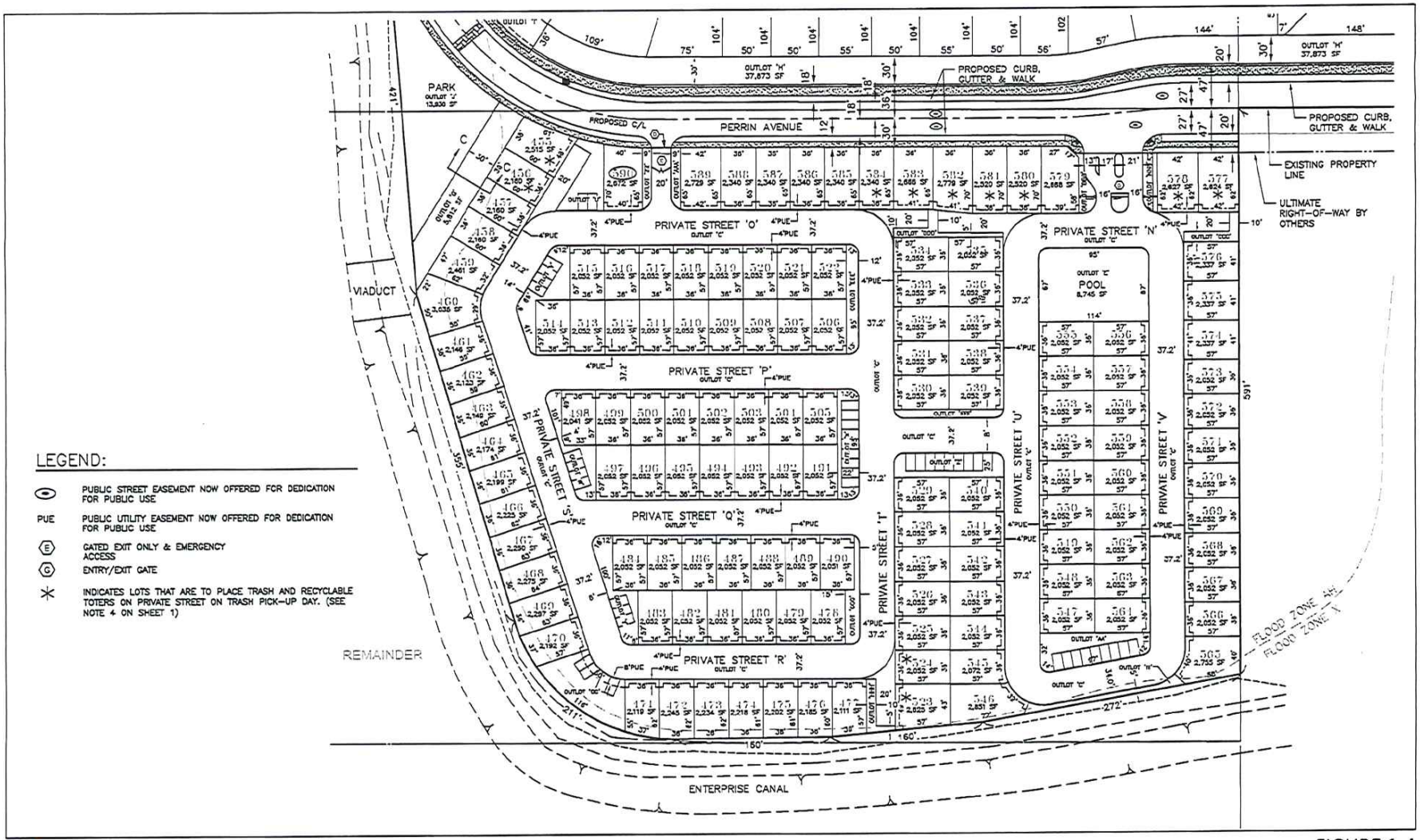


FIGURE 1-4

LSA

0 60 120
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\South-Phase 1.ai (9/22/2022)

Tract Map 6343
South: Phase 1

B1-6

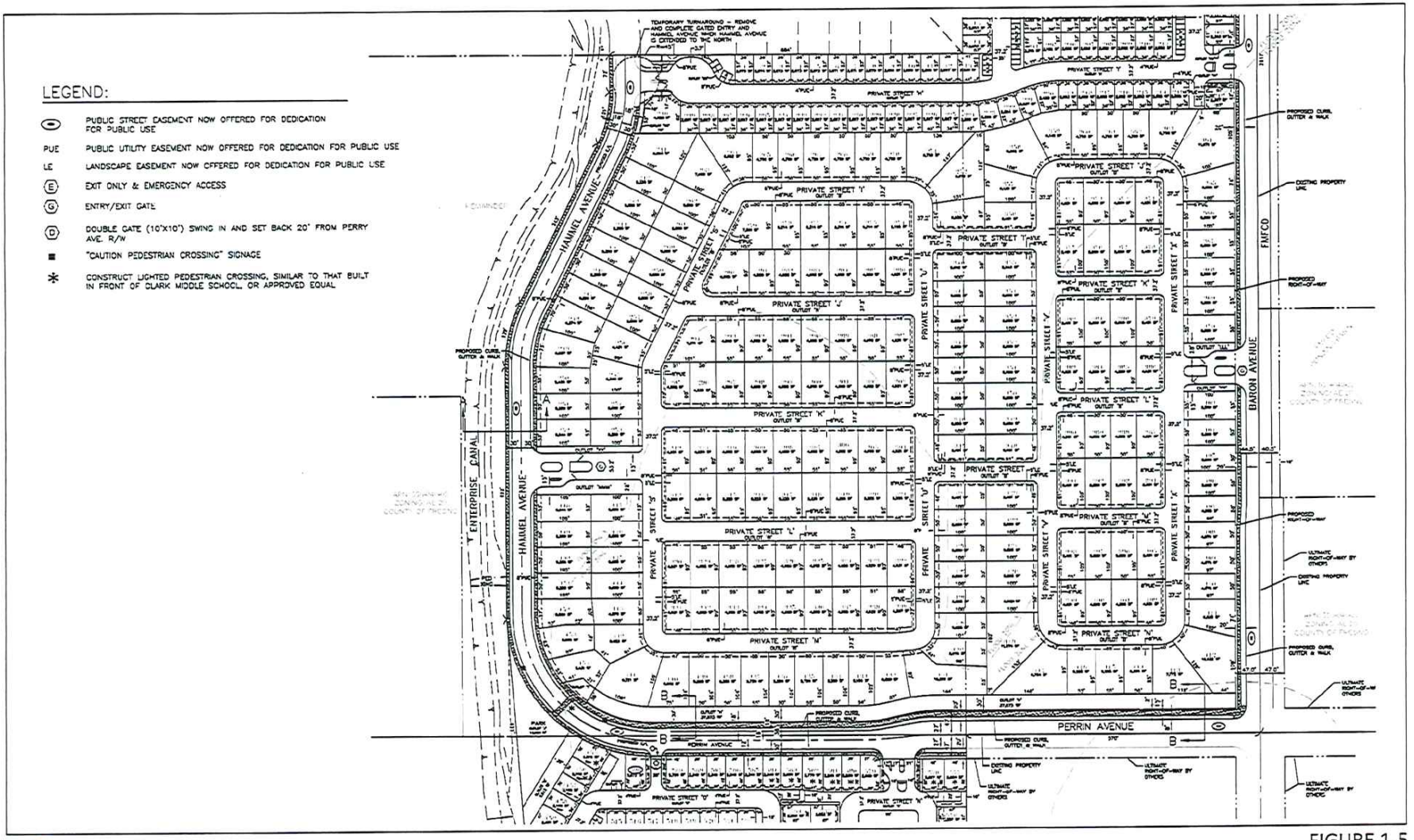


FIGURE 1-5

LSA

0 100 200
FEET

SOURCE: Harbor & Associates, January 2022

I:\CIT2201\G\Central-Phase 2.ai (9/22/2022)

Tract Map 6343
Central: Phase 2

B1-6

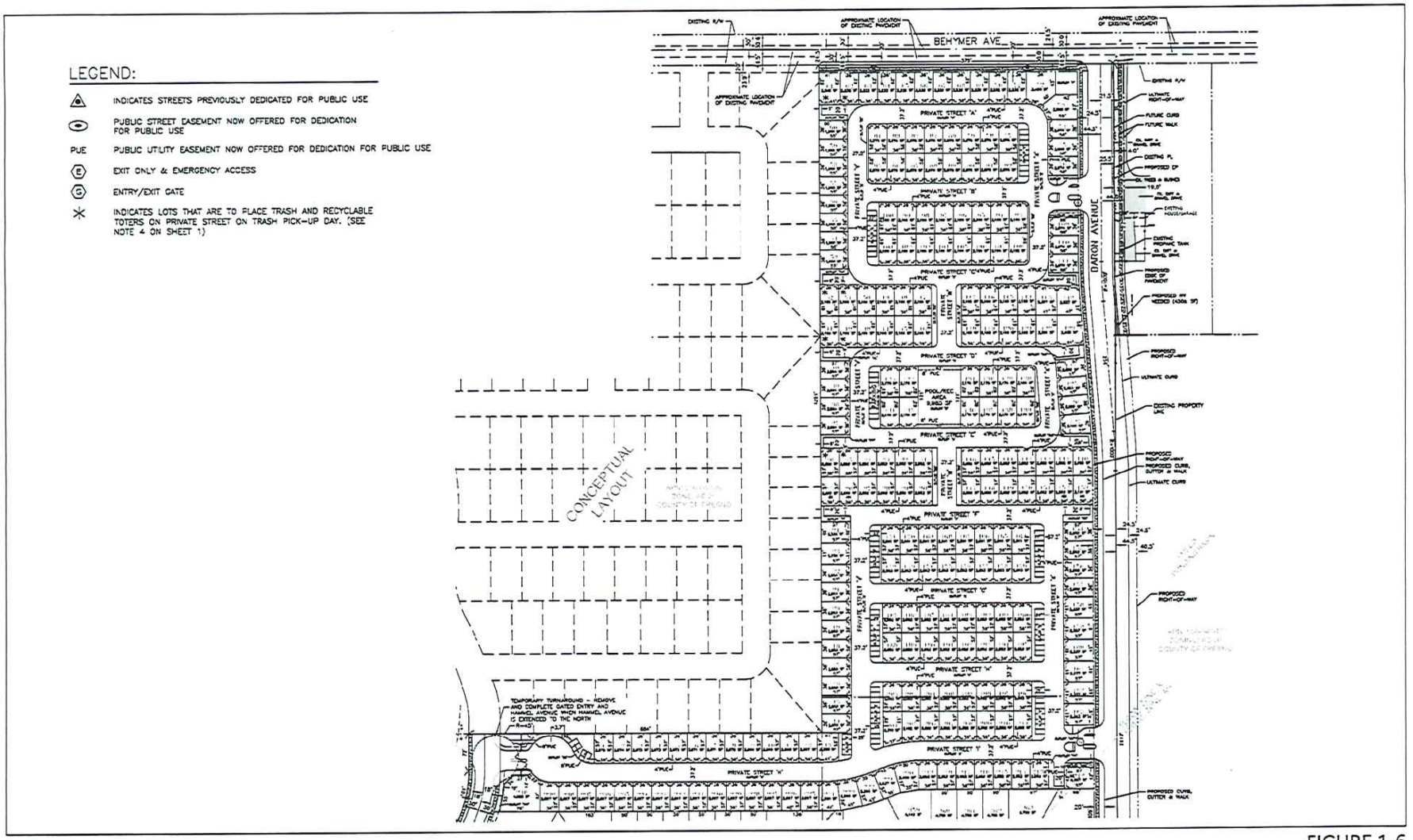


FIGURE 1-6

LSA

0 80 160
FEET

SOURCE: Harbor & Associates, January 2022

:\CIT2201\G\North-Phase 3.ai (9/22/2022)

Tract Map 6343
North: Phase 3

B1-6

E20241000006

FILED
JAN 12 2024 TIME 9:40am
FRESNO COUNTY CLERK
By _____ DEPUTY

Notice of Availability
Tract Map 6343
Draft Environmental Impact Report

DATE: January 12, 2024

TO: Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

SUBJECT: Notice of Availability of a Draft Environmental Impact Report for Tract Map 6343

LEAD AGENCY:
City of Clovis
Lily Cha-Haydostian, MPA | Senior Planner
City of Clovis | Planning Division
1033 Fifth Street
Clovis, CA 93612
559.324.2335
lilyc@ci.clovis.ca.us

COMMENT PERIOD: January 12, 2024 to February 26, 2024

Notice is hereby given that the City of Clovis (City), as the Lead Agency, has completed the Draft Environmental Impact Report (EIR) for Tract Map 6343, which is being distributed for public review pursuant to the California Environmental Quality Act (CEQA) and the California Public Resources Code.

The City has sent a copy of this Draft EIR to the State Clearinghouse and to those who requested a copy by responding to the Notice of Preparation (NOP). The City has also posted a copy of this Notice of Availability at Clovis City Hall and posted in The Business Jourrnal.

B1-7

PROJECT LOCATION

The Tract Map 6343 Project (Project) site is located directly north of the City of Clovis limit line at the southwest corner of the East Behymer Avenue and North Sunnyside Avenue intersection. The Project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The Project site is in the northwest quadrant of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian (MDBM).

PROJECT DESCRIPTION

The proposed Tract Map 6343 would consist of the annexation of 246 acres from Fresno County to the City of Clovis, and the development of 590 residential lots within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces would be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. Associated entitlements include Annexation to the City of Clovis and a Planned Development Permit, General Plan Amendment, Prezone, and Tract Map approval to allow for 590 single-family residences. To facilitate the future development of the subject property, the proposed project will also require dedications and/or acquisitions for public street rights-of-way and utility easements, as well as the construction of public facilities and infrastructure. A detailed project description is provided in the Draft EIR.

Notice of Availability of an Environmental Impact Report
Tract Map 6343

EZ0241000006

SIGNIFICANT ENVIRONMENTAL EFFECTS

The Draft EIR has identified the following environmental issue areas as having significant and unavoidable environmental impacts from implementation of the project: Greenhouse Gas Emissions, Transportation and Cumulative Impacts. All other environmental issues were determined to have no impact, less than significant impacts, or less than significant impacts with mitigation measures incorporated into the Project.

B1-7

Public Review Period

A 46-day public review period for the Draft EIR will commence on January 12, 2024 and end on February 26, 2024. Any written comments on the Draft EIR must be received at the above address within the public review period. Copies of the Draft EIR are available for review at the Attn: Lily Cha-Haydostian, MPA, Senior Planner at the City of Clovis, Planning Division, 1033 Fifth Street, Clovis, CA 93612.The Draft EIR also may be reviewed at the City of Clovis' web site https://cityofclovis.com/planning-and-development/ceqa/. If we do not receive a response from your agency or organization, we will presume that your agency or organization has no response to make.

Notice of Availability
Tract Map 6343
Draft Environmental Impact Report

DATE: January 19, 2024

TO: Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

SUBJECT: Notice of Availability of a Draft Environmental Impact Report for Tract Map 6343

LEAD AGENCY:
City of Clovis
Lily Cha-Haydostian, MPA | Senior Planner
City of Clovis | Planning Division
1033 Fifth Street
Clovis, CA 93612
559.324.2335
lilyc@ci.clovis.ca.us

COMMENT PERIOD: January 19, 2024 to March 4, 2024

Notice is hereby given that the City of Clovis (City), as the Lead Agency, has completed the Draft Environmental Impact Report (EIR) for Tract Map 6343, which is being distributed for public review pursuant to the California Environmental Quality Act (CEQA) and the California Public Resources Code.

The City has sent a copy of this Draft EIR to the State Clearinghouse and to those who requested a copy by responding to the Notice of Preparation (NOP). The City has also posted a copy of this Notice of Availability at Clovis City Hall and posted in The Business Jourrnal. B1-8

PROJECT LOCATION

The Tract Map 6343 Project (Project) site is located directly north of the City of Clovis limit line at the southwest corner of the East Behymer Avenue and North Sunnyside Avenue intersection. The Project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, a Fresno Metropolitan Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east. The Project site is in the northwest quadrant of Section 20, Township 12 South, Range 21 East, Mount Diablo Base and Meridian (MDBM).

PROJECT DESCRIPTION

The proposed Tract Map 6343 would consist of the annexation of 246 acres from Fresno County to the City of Clovis, and the development of 590 residential lots within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces would be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses. No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. Associated entitlements include Annexation to the City of Clovis and a Planned Development Permit, General Plan Amendment, Prezone, and Tract Map approval to allow for 590 single-family residences. To facilitate the future development of the subject property, the proposed project will also require dedications and/or acquisitions for public street rights-of-way and utility easements, as well as the construction of public facilities and infrastructure. A detailed project description is provided in the Draft EIR.

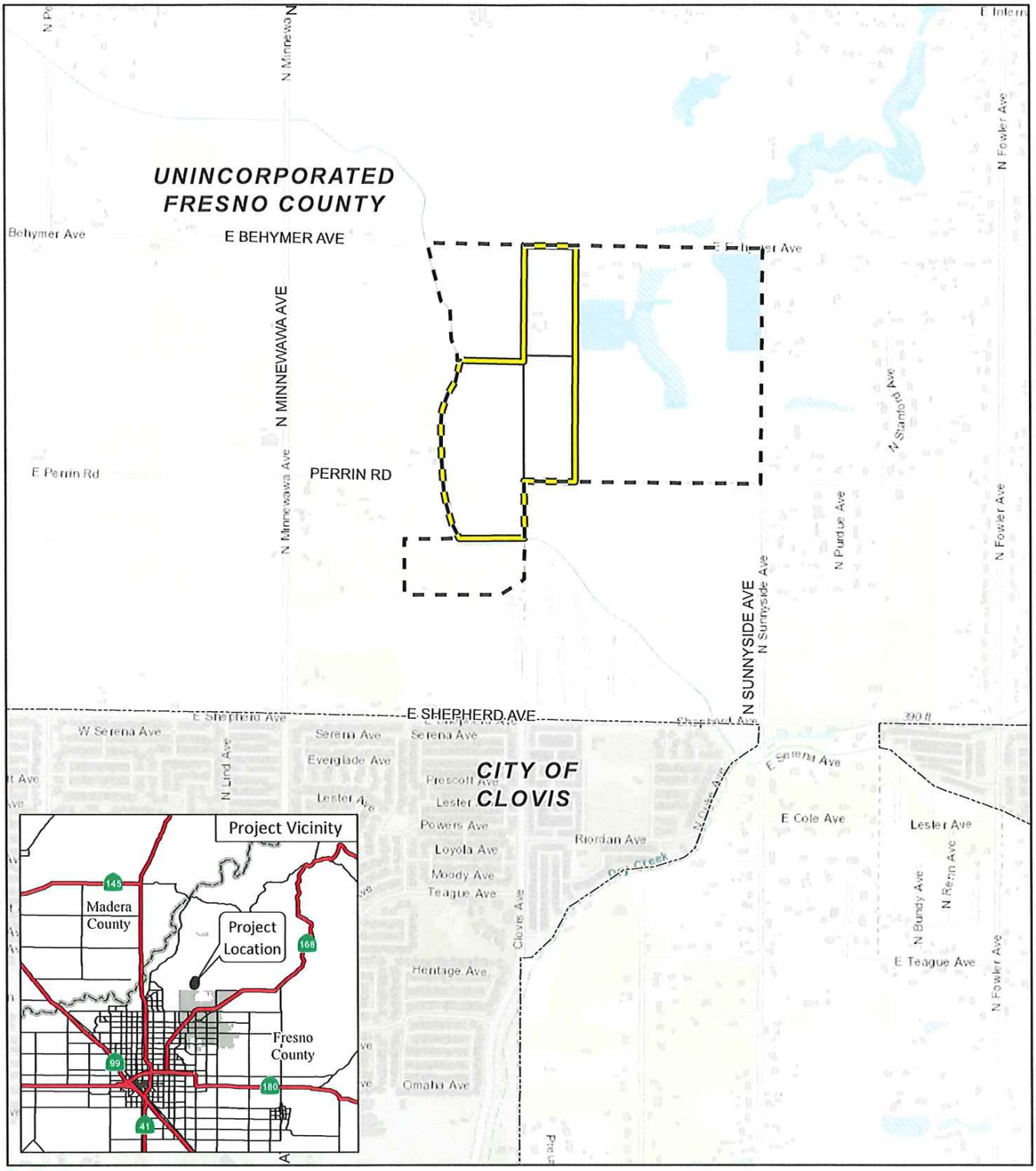
SIGNIFICANT ENVIRONMENTAL EFFECTS

The Draft EIR has identified the following environmental issue areas as having significant and unavoidable environmental impacts from implementation of the project: Greenhouse Gas Emissions, Transportation and Cumulative Impacts. All other environmental issues were determined to have no impact, less than significant impacts, or less than significant impacts with mitigation measures incorporated into the Project.

Public Review Period

A 45-day public review period for the Draft EIR will commence on January 19, 2024 and end on March 4, 2024. Any written comments on the Draft EIR must be received at the above address within the public review period. Copies of the Draft EIR are available for review at the Attn: Lily Cha-Haydostian, MPA, Senior Planner at the City of Clovis, Planning Division, 1033 Fifth Street, Clovis, CA 93612.The Draft EIR also may be reviewed at the City of Clovis' web site https://cityofclovis.com/planning-and-development/ceqa/. If we do not receive a response from your agency or organization, we will presume that your agency or organization has no response to make.

B1-8



LSA

SOURCE: Esri Streetmap (2021)

\\lsaazfiles.file.core.windows.net\images\CIT2201\GIS\MXD\Regional_Local_Context.mxd (12/6/2022)

FIGURE 3-1

Tract Map 6343

Regional and Local Context

B1-8

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

February 29, 2024

Lily Cha-Haydostian
City of Clovis
Planning Division
1033 Fifth Street
Clovis, CA, 93612

Project: Draft Environmental Impact Report for Tract Map 6343

District CEQA Reference No: 20240048

Dear Ms. Cha-Haydostian:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) from the City of Clovis (City) for Tract Map 6343 project. Per the DEIR, the project consists of the annexation of 246 acres for the development of 590 single-family residential lots on 71.54-acres and no development on the remaining 174.46-acres (Project). The Project is located on the southwest corner of East Behymer Avenue and North Sunnyside Avenue, in Clovis, CA. B2-1

The District offers the following comments at this time regarding the Project:

1) Project Related Emissions

Based on the DEIR, Project specific annual criteria pollutant emissions from construction and operation are not expected to exceed any of the significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI): https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. B2-2

1a) Construction Emissions

The District recommends, to further reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

2) Clean Lawn and Garden Equipment in the Community

Since the Project consists of residential development, gas-powered residential lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: https://ww2.valleyair.org/grants/clean-green-yard-machines-residential/ and https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/.

B2-3

3) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

B2-4

4) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

B2-5

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

4a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT). B2-6

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

4b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 50 dwelling units of residential.

The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions. B2-7

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design. One AIA application should be submitted for the entire Project.

Information about how to comply with District Rule 9510 can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview

The AIA application form can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/

District staff is available to provide assistance, and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

B2-7

4c) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at: https://ww2.valleyair.org/compliance/demolition-renovation/

B2-8

4d) District Rule 4601 (Architectural Coatings)

The Project will be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf

B2-9

4e) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.*

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500

B2-10

cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950. **B2-10**

The application for both the Construction Notification and Dust Control Plan can be found online at: https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx

Information about District Regulation VIII can be found online at: https://ww2.valleyair.org/dustcontrol

4f) District Rule 4901 - Wood Burning Fireplaces and Heaters

The purpose of this rule is to limit emissions of carbon monoxide and particulate matter from wood burning fireplaces, wood burning heaters, and outdoor wood burning devices. This rule establishes limitations on the installation of new wood burning fireplaces and wood burning heaters. Specifically, at elevations below 3,000 feet in areas with natural gas service, no person shall install a wood burning fireplace, low mass fireplace, masonry heater, or wood burning heater. **B2-11**

Information about District Rule 4901 can be found online at: https://ww2.valleyair.org/compliance/residential-wood-smoke-reduction-program/

4g) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). **B2-12**

5) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

B2-13

If you have any questions or require further information, please contact Eric McLaughlin by e-mail at eric.mclaughlin@valleyair.org or by phone at (559) 230-5808.

Sincerely,

Tom Jordan
Director of Policy and Government Affairs

Mark Montelongo
Program Manager

This page intentionally left blank

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

TRACT MAP 6343

CLOVIS, CALIFORNIA

LSA

April 2024

This page intentionally left blank

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS

TRACT MAP 6343
CLOVIS, CALIFORNIA

Submitted to:

City of Clovis
Planning Division
1033 Fifth Street
Clovis, California 93612

Prepared by:

LSA
2565 Alluvial Avenue, Suite 112
Clovis, California 93611
(559) 490-1210

Project No. CIT2201

LSA

April 2024

This page intentionally left blank

TABLE OF CONTENTS

TABLE OF CONTENTS i
INTRODUCTION 1
PROJECT DESCRIPTION 3
Project Location 3
Project Objectives 3
Project Characteristics 3
PROCEDURAL FINDINGS 5
RECORD OF PROCEEDINGS 7
FINDINGS REQUIRED UNDER CEQA 9
Aesthetics 9
Agriculture and Forestry Resources 10
Air Quality 12
Biological Resources 12
Cultural and Tribal Resources 16
Energy 19
Geology and Soils 20
Greenhouse Gas Emissions 21
Hazards and Hazardous materials 23
Hydrology and Water Quality 24
Land Use and Planning 24
Mineral Resources 25
Noise 25
Population and Housing 28
Public Services 29
Recreation 29
Transportation 30
Utilities and Service Systems 34
Wildfire 35
Mitigation Monitoring 35
Significant Irreversible Environment Effects 36
Growth Inducement 37
PROJECT ALTERNATIVES 39
Alternatives Considered in the EIR 39
STATEMENT OF OVERRIDING CONSIDERATIONS 43

This page intentionally left blank

INTRODUCTION

The following Findings of Fact and Statement of Overriding Considerations are based in part on the information contained in the Tract Map 6343 Draft and Final Environmental Impact Report (State Clearinghouse # 2022120483) that was prepared by the City of Clovis (City) acting as lead agency pursuant to the California Environmental Quality Act (CEQA). Hereafter, unless specifically identified, the Notice of Preparation (NOP), Notices of Availability and Completion (NOA/NOC), Draft Environmental Impact Report (Draft EIR), Appendices, Technical Studies, Final Environmental Impact Report containing Responses to Comments and textual revisions to the Draft EIR (in the Final Environmental Impact Report), and Mitigation Monitoring and Reporting Program (MMRP) will be referred to collectively herein as the "EIR." These Findings are based on the entire record before the Planning Commission, including the EIR. The EIR is hereby incorporated by reference and is available for review at the City of Clovis, 1033 Fifth Street, Clovis, California, and electronically at: https://cityofclovis.com/planning-and-development/planning/ceqa/

The purpose of these Findings of Fact and Statement of Overriding Considerations is to satisfy the requirements of Sections 15091, 15092, and 15093 of the CEQA Guidelines, associated with approval of proposed Tract Map 6343 (herein referred to as the proposed project).

This page intentionally left blank

PROJECT DESCRIPTION

PROJECT LOCATION

The project site is in an unincorporated area of Fresno County. The project site is within the Sphere of Influence of the City of Clovis, and within the Northwest Urban Center area identified in the City's General Plan, now referred to as Heritage Grove. The project site is bounded by East Behymer Avenue to the north, by the Enterprise Canal to the west and south, and by rural residential, Fresno Municipal Flood Control District (FMFCD) ponding basin, and Tract Map 6200 to the east.

PROJECT OBJECTIVES

The following is a list of objectives for the proposed project:

- Provide residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis.
- Establish a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand.
- Implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land.
- Provide infrastructure that meets City standards and is integrated with existing and planned facilities and connections.
- Develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

PROJECT CHARACTERISTICS

The proposed project would consist of the annexation of 246 acres by the City of Clovis, and the development of approximately 590 residential lots, averaging approximately 3,329 square feet within the 71.54-acre project site. The proposed lots would be developed into single-family residences over time. Sixty-six outlot spaces that would potentially be developed into private roads, private parking, pedestrian walkways, landscaping, public utilities, and public park uses would also be included within the project site.

No development is proposed within the remaining 174.46-acre annexation area surrounding the project site. The proposed project would include annexation of the 246-acre area from Fresno County jurisdiction to the City of Clovis. Any future development occurring within the annexation area would require a separate project-specific analysis. The proposed project would be developed in three phases, as described below.

Phase 1 would include the development of approximately 136 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 1 would be located on the southern

portion of the project site and would be accessed through one ingress and egress street on Perrin Avenue. Phase 1 would include the construction of approximately 44 parking spaces, an approximately 8,745 square-foot community pool and recreation area, an approximately 13,930-square-foot community park, approximately 0.51 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Perrin Avenue. The southern extension of North Baron Avenue from East Behymer Avenue and the extension of Perrin and Hammel Avenue within the project site would be constructed during Phase 1.

Phase 2 would include the development of approximately 214 single-family residential units with an average size of approximately 2,168 square feet per unit. Phase 2 would be located on the central portion of the project site and would be accessed through one gated ingress and egress street along the future southern extension of Baron Avenue, and one gated ingress and egress street along Hammel Avenue. Phase 2 would include the construction of an approximately 26-foot-wide drainage channel along Perrin Avenue, approximately 0.35 acre of landscaped areas, as well as storm drainage and pedestrian infrastructure improvements along Perrin Avenue and Hammel Avenue.

Phase 3 of the proposed project would include the development of approximately 240 single-family residential units with an average size of approximately 1,514 square feet per unit. Phase 3 would be located on the northern portion of the project site and would be accessed through two gated ingress and egress streets located along the future southern extension of Baron Avenue, and through one gated egress street access located along the future northern extension of Hammel Avenue. Phase 3 would include the construction of approximately 91 parking spaces, an approximately 9,985-square-foot pool and recreation area, approximately 0.65 acre of landscaped areas, and drainage and pedestrian infrastructure improvements along Baron Avenue.

In addition, development of the project site would include infrastructure improvements for water services along the East Behymer Avenue frontage and Baron Avenue frontage, as well as stormwater management infrastructure improvements along the Perrin Avenue frontage. The proposed project would also construct a two-lane, approximately 49-foot-wide and 2,650-foot-long extension of Baron Avenue south of East Behymer Avenue.

A number of other permits and approvals are also contemplated as part of the project, as further described in Section 3.0 of the EIR, which is incorporated by reference.

PROCEDURAL FINDINGS

On December 19, 2022, the City circulated an NOP notifying responsible agencies and interested parties that an EIR would be prepared for the proposed project and indicated the environmental topics anticipated to be addressed in the EIR. The NOP was sent to the State Clearinghouse, responsible agencies, interested parties, and organizations likely to be interested in the potential impacts of the proposed project. A scoping session was held in person on January 13, 2022, to solicit feedback regarding the scope and content of the EIR. Comments received by the City on the NOP were considered during preparation of the Draft EIR.

The Draft EIR was made available for public review on January 12, 2024, and was distributed to local and State responsible and trustee agencies. The NOA for the Draft EIR was submitted to the State Clearinghouse, provided to all individuals and organizations who made a written request for notice, and filed with the Fresno County Clerk.

The CEQA-mandated public comment period ended on March 4, 2024. The City accepted and responded to all comments received during the 53-day public comment period for the Draft EIR, between January 12, 2024, and March 4, 2024.

Following public review of the Draft EIR, a Final EIR was prepared. The Final EIR was made available in March 2024 and consists of the following items:

- The Draft EIR released on January 12, 2024.
- Responses to Comments; and
- Text revisions to the Draft EIR.

As required by CEQA Guidelines Section 15088(b), public agencies that commented on the Public Review Draft EIR were provided at least 10 days to review the proposed responses contained in the Final EIR prior to the date for consideration of the Final EIR for certification.

This page intentionally left blank

RECORD OF PROCEEDINGS

In accordance with Public Resources Code (PRC) Section 21167.6(e), the record of proceedings for the City's decision on the project includes the following documents, which are incorporated by reference and made part of the record supporting these Findings:

- City staff reports and all attachments;
- The Draft EIR and all appendices to the Draft EIR;
- The Final EIR and all appendices to the Final EIR;
- All notices required by CEQA and presentation materials related to the project;
- All comments submitted by agencies or members of the public during the comment period on the NOP and the Draft EIR;
- All studies conducted for the project and contained or referenced in the Draft EIR and the Final EIR;
- All documents cited or referenced in the Draft EIR and the Final EIR;
- All public reports and documents related to the project prepared for the City and other agencies;
- All other documents related to the project;
- The MMRP for the project; and
- Any additional items not included above if otherwise required by law.

The documents constituting the record of proceedings are available for review by responsible agencies and interested members of the public during normal business hours at the City's offices at 1033 Fifth Street, Clovis, California.

The Draft EIR and Final EIR are incorporated into these Findings in their entirety, unless and only to the extent that these Findings expressly do not incorporate by reference the Draft EIR and Final EIR. Without limitation, this incorporation is intended to elaborate on the scope and nature of mitigation measures, the basis for determining the significance of impacts, the comparative analysis of alternatives, and the reasons for approving the project in spite of the potential for associated significant and unavoidable adverse physical environmental impacts.

This page intentionally left blank

FINDINGS REQUIRED UNDER CEQA

The Draft EIR identified a number of less than significant impacts associated with the project that do not require mitigation. The Draft EIR also identified a number of significant and potentially significant environmental effects (or impacts) that may be caused in whole or in part by the project. Some of these significant effects can be fully avoided or substantially lessened through the adoption of feasible mitigation measures. Other effects cannot be, and thus may be significant and unavoidable. For reasons set forth in Section 7, "Statement of Overriding Considerations," however, the City has determined that overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the project.

The findings of the City with respect to the project's significant effects and mitigation measures are set forth in the EIR and these Findings of Fact. The Summary of Findings does not attempt to replicate or restate the full analysis of each environmental impact contained in the EIR. Please refer to the Draft EIR and Final EIR for more detail.

The following provides a summary description of each potentially significant impact, describes the applicable mitigation measures identified in the Final EIR and adopted by the City, and states the findings of the City regarding the significance of each impact after imposition of the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the Draft EIR and Final EIR and associated record (described herein), both of which are incorporated by reference. The City hereby ratifies, adopts, and incorporates the analysis and explanation in the record into these Findings, and ratifies, adopts, and incorporates into these Findings the determinations and conclusions of the EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these Findings.

To the extent any of the mitigation measures are within the jurisdiction of other agencies, the City finds those agencies can and should implement those measures within their jurisdiction and control (CEQA Guidelines, Section 15091[a][2]).

AESTHETICS

Environmental Effects of the Project Found to Have No Impact on the Environment or to Have a Less Than Significant Impact on the Environment

- *The proposed project would not have a substantial adverse effect on a scenic vista.*

- *The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.*

- *The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point). Due to the location of the project in an urbanized area, the project would not conflict with applicable zoning and other regulations governing scenic quality.*

- *The project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

AGRICULTURE AND FORESTRY RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact AG-1:*** *The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*

- ***Impact AG-3:*** *The project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.*

- *The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code section.51104(g)).*

- *The project would not result in the loss of forest land or conversion of forest land to non-forest use.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- ***Impact AG-2:*** *The project would conflict with existing zoning for agricultural use or a Williamson Act contract.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: The proposed project site is in APN 556-030-014S, which is currently under a Williamson Act contract. As APN 556-030-014S is identified for development pursuant to the General Plan, a Williamson Act cancellation process for the parcel would take place prior to issuance of building permits for the proposed project. Implementation of Mitigation Measure AG-2 would ensure compliance with the required procedure for cancellation of the Williamson Act contract at APN 556-030-014S. With implementation of Mitigation Measure AG-2, by the time project development begins at the project site, there would be no parcels within the project site

under a Williamson Act contract. Therefore, with Mitigation Measure AG-2, the proposed project would not conflict with zoning for agriculture or a Williamson Act contract, and the impact would be less than significant.

Mitigation Measure AG-2 Prior to issuance of building permits, the Project Applicant shall petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the Fresno County Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.

- ***Impact AG-4:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to agricultural resources.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: The project would implement Mitigation Measure AG-2 to reduce impacts related to conflicts with a Williamson Act contract to less than significant levels, as described above. Additionally, although the proposed project would result in the conversion of agricultural uses to nonagricultural uses through development of the project site, the City of Clovis General Plan EIR previously identified that conversion of farmland resulting from development of the General Plan would result in significant and unavoidable impacts. As such, the project would not result in new significant impacts that would contribute to cumulative impacts to agricultural resources. Further, the project site does not include any forestlands or timberland, so implementation of the proposed project would not contribute to cumulative impacts to forestry resources. Thus, the project would not contribute to any significant cumulative impacts to agricultural and forestry resources, and cumulative impacts to these resources would be less than significant.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

AIR QUALITY

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact AIR-1:*** *The project would not conflict with or obstruct implementation of the applicable air quality plan.*
- ***Impact AIR-2:*** *Implementation of the proposed project would not result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or State ambient air quality standard.*
- ***Impact AIR-3:*** *Implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.*
- ***Impact AIR-4:*** *The project would not result in significant odors that could adversely affect a substantial number of people.*
- ***Impact AIR-5:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would not contribute to a significant cumulative impact with respect to air quality.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less than Significant

- None.

BIOLOGICAL RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community.*
- *The project would not have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- *The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

- *The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

- *The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- *The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: The project site contains suitable nesting habitat for a variety of birds. Nearly all native birds are protected by the Federal Migratory Bird Treaty Act, the California Migratory Bird Protection Act, and the California Fish and Game Code. Construction activities that occur during the nesting bird season (typically February 1 through September 30) have potential to result in the mortality/disturbance of nesting birds.

Conducting pre-construction surveys and establishing buffers would prevent or compensate for impacts on special-status bird species. Therefore, implementation of Mitigation Measure BIO-1, which would require conducting pre-construction surveys, and establishing buffers if nesting birds are found during the surveys, would effectively mitigate any impacts to nesting birds to less than significant levels.

In addition, eight existing trees in the project site have the potential to be used as nesting habitat for Swainson's hawk, a state-protected species. Construction activities that occur near the trees onsite, or that directly affect potential nesting habitat could result in "take" of Swainson's hawk. Conducting pre-construction surveys, establishing buffers, and having a qualified biologist monitoring any existing nests, as applicable, would prevent or compensate for impacts on Swainson's hawk. Therefore, implementation of Mitigation Measure BIO-2, which would require conducting pre-construction surveys, establishing buffers and monitoring, as applicable, would effectively mitigate any impacts to Swainson's hawk to less than significant levels.

Further, old pipelines present near the existing residence on the project site and along the Enterprise Canal have the potential to be used as nesting habitat by the burrowing owl, a state-protected species. Construction activities that occur near, or that directly affect, potential nesting habitat could result in "take" of burrowing owl. Conducting pre-construction surveys, establishing buffers, and passive relocation of burrowing owls under the direction of a qualified biologist, as applicable, would prevent or compensate for impacts on burrowing owl. Therefore, implementation of Mitigation Measure BIO-3 and Mitigation Measure BIO-4, which would require conducting pre-

construction surveys, establishing buffers and passive relocation, as applicable, would effectively mitigate any impacts to burrowing owls to less than significant levels.

No other special-status species were determined to have a moderate or high probability of occurrence on the project site. As such, Mitigation Measures BIO-1 through BIO-4 would reduce potential impacts to special-status species to less than significant levels.

Mitigation Measure BIO-1 ***Nesting Bird Surveys and Active Nest Avoidance.*** Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 10 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.

Mitigation Measure BIO-2 ***Conduct Surveys for Swainson's Hawk Nests and Implement Avoidance and Minimization Measures.*** The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct preconstruction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records will be used to support the survey.

Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's

1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW).

If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated.

Mitigation Measure BIO-3 ***Conduct Pre-construction Clearance Surveys for Burrowing Owl***. A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site.

Mitigation Measure BIO-4 ***Passive Relocation Measures for Burrowing Owl.*** If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as

encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993).

If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

CULTURAL AND TRIBAL RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- None.

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- *The project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: No historical resources were identified within the project site. In the event that unknown resources are discovered during project construction, existing federal, State,

and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined to not be of significance by a qualified professional. Implementation of Mitigation Measure CUL-1 would require consultation with a historical resources specialist to assess whether the discovered resource qualifies as a historical resource and to identify appropriate mitigation measures, if applicable. Therefore, potential impacts related to a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 would be less than significant with mitigation.

Mitigation Measure CUL-1 ***Consultation with Qualified Historical Specialist for Resources Found During Project Construction.*** If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study.

The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the State CEQA Guidelines.

If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the State CEQA Guidelines, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study. A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center.

- *The project would cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: No archaeological resources were identified in the project site. However, there is a potential for unknown archaeological resources to be discovered during construction of the proposed project. Mitigation Measure CUL-1 requires that if unknown archaeological resources are discovered during construction, work in the area would halt and a qualified archaeologist would be contacted and consulted regarding how to appropriately address the situation. This would minimize or eliminate any potential for an adverse change to the significance of any discovered archaeological resources. Therefore, adherence to the requirements of Mitigation Measure CUL-1, described above, would reduce potential impacts from a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 to less than significant with mitigation.

- *The project would disturb human remains, including those interred outside of formal cemeteries.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98 shall apply, as appropriate. Mitigation Measure CUL-2 requires adherence to Section 7050.5 of the California Health and Safety Code and PRC Section 5097.98. With implementation of Mitigation Measure CUL-2, potential impacts related to disturbance of any human remains, including those interred outside of formal cemeteries, would be less than significant with mitigation.

Mitigation Measure CUL-2 In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.

Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

The Project Applicant shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

- *The project would result in a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: While there is no evidence to suggest the presence of tribal cultural resources, if any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resource professional. In addition, Mitigation Measure CUL-1 requires that if unknown archaeological resources are discovered during construction, work in the area would halt and a qualified archaeologist would be contacted. Further, Mitigation Measure CUL-2 would require compliance with applicable federal, State, and local laws and regulations if human remains of tribal origin are found during construction of the proposed project. Therefore, adherence to the requirements of Mitigation Measures CUL-1 and CUL-2 would reduce potential impacts related to the substantial adverse change in the significance of a tribal cultural resource to less than significant.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

ENERGY

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.*

- *The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

GEOLOGY AND SOILS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
    - *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
    - *Strong seismic ground shaking.*
    - *Seismic-related ground failure, including liquefaction.*
    - *Landslides.*
- *Result in substantial soil erosion or the loss of topsoil.*
- *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.*
- *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.*
- *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: No paleontological resources or unique geological features are known to exist within or near the project site, and the proposed project is not expected to alter or destroy a paleontological resource, site, or unique geologic feature. However, as required by Mitigation Measure GEO-1, in the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop within 50 feet of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study. Mitigation Measure GEO-1 would reduce potential impacts related to the project's potential

to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature to less than significant with mitigation.

Mitigation Measure GEO-1 If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource.

If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

GREENHOUSE GAS EMISSIONS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *None.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- ***Impact GHG-1:*** *The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: As neither the City nor the SJVAPCD has developed or adopted numeric GHG significance thresholds, the significance of GHG emissions from the project was analyzed based on the project's consistency with the 2022 Scoping Plan.

The 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions in Appendix D, Local Actions[1], of the 2022 Scoping Plan. As discussed in Appendix D of the 2022 Scoping Plan, absent consistency with an adequate, geographically specific GHG reduction plan such

[1] CARB. 2022b. *2022 Scoping Plan Appendix D Local Actions.* November. Website: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf (accessed February 2023).

as a CEQA-qualified Climate Action Plan (CAP), the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing.

The 2022 Scoping Plan recommends that a residential or mixed-use project provide EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval. Implementation of Mitigation Measure GHG-1 would be required to ensure the proposed project would provide electric vehicle charging. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this key project attribute.

Further, the project is generally consistent with all the other key attributes and recommendations from the 2022 Scoping Plan, including development in an infill site, as the project site is located in area that has been marked for development of mixed uses, is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer), and will implement design features that would reduce project VMT. Additionally, the project would result in a less-than-significant impact related to the conversion of farmland; would be consistent with the transit density criteria recommended in the Scoping Plan; would meet parking reduction requirements of the Scoping Plan; would advance State housing goals by increasing housing opportunities in the San Joaquin Valley; and would be all-electric and would not include natural gas, as recommended in the Scoping Plan.

With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related to EV charging requirements, and the proposed project would result in less-than-significant impacts related to greenhouse gas emissions.

Mitigation Measure GHG-1 In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs.

- ***Impact GHG-2:*** *The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Rationale for the Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

The project was analyzed for consistency with State GHG reduction goals, namely goals of the 2022 Scoping Plan. The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. As described above under Impact GHG-1, with implementation of Mitigation Measure GHG-1, the project would be consistent with all key attributes and goals of the 2022 Scoping Plan. Therefore,

the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and the impact would be less than significant.

- ***Impact GHG-3:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to greenhouse gas emissions.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Rationale for the Finding: As presented above, the proposed project was analyzed for consistency with State GHG reduction goals in the 2022 Scoping Plan to assess significance of project GHG emissions. Based on the analysis presented above, the proposed project would be consistent with the 2022 Scoping Plan key residential and mixed-use project attributes related to building electrification with implementation of Mitigation Measure GHG-1, the EV charging requirements. Therefore, the proposed project would have a less than significant impact. Therefore, the proposed project would not result in a cumulatively considerable impact on climate change.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None

HAZARDS AND HAZARDOUS MATERIALS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.*

- *The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.*

- *The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.*

- *The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

- *The project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and would not result in a safety hazard for people residing or working in the project area.*

- *The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

- *The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

HYDROLOGY AND WATER QUALITY

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.*
- *The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.*
- *The project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.*
- *The project would not release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone.*
- *The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (SGMA).*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

LAND USE AND PLANNING

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not physically divide an established community.*

- *The project would not cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

MINERAL RESOURCES

Environmental Effects of the Project Found to Have No Impact on the Environmental or Have a Less Than Significant Impact on the Environment

- *The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.*

- *The project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

NOISE

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact NOI-2:*** *The proposed project would not generate excessive groundborne vibration or groundborne noise levels.*

- ***Impact NOI-3:*** *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- ***Impact NOI-1:*** *The proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, State, or federal standards.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

Project construction would result in short-term noise impacts on the nearby sensitive receptors. The closest sensitive receptors to the project site include single-family residential uses located approximately 55 feet east of the project site along Behymer Avenue, approximately 230 feet west of the project site, and approximately 530 southeast of the project site along Baron Avenue. An evaluation of construction noise levels at nearby sensitive receptors determined that the closest sensitive receptor may be subject to short-term maximum construction noise reaching 86 dBA L_{max} during project construction. Consistent with the City's Municipal Code Section 5.27.604, construction noises are permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday. While construction noise impacts are exempt from specific noise levels limits under the City's Municipal Code, project construction noise would result in a potentially significant impact at the nearest off-site sensitive residential use. As such, Mitigation Measure NOI-1.1 would be required to ensure that all construction equipment, fixed or mobile, is equipped with properly operating and maintained mufflers consistent with manufacturers' standards, which would reduce the potential impacts associated with construction equipment. Additionally, Mitigation Measure NOI-1.1 requires the project to designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. With implementation of Mitigation Measure NOI-1.1, the proposed project would result in a less than significant impact associated with the generation of a substantial temporary increase in ambient noise levels in the vicinity during construction.

Noise-generating uses associated with development of the proposed project would typically include vehicle traffic and operational noise, such as HVAC and pool pump equipment. Although noise level associated with off-site traffic from the project is not expected to exceed the significance threshold for perceptible noise-level increases of 3 dBA or more, and noise levels from stationary sources like HVAC equipment noise or pool pumps are not expected to exceed the City's maximum exterior noise level standards for residential uses of 50 dBA L_{eq} during nighttime hours and 55 dBA L_{eq} during daytime hours, as measured at the nearest receiving sensitive land use, noise associated with on-site project traffic would require implementation of noise insulation features in project design to fulfill the City's normally acceptable interior noise level criterion. Implementation of an HVAC system would allow windows to remain closed in order to reduce interior noise levels by 25 dBA, resulting in interior noise levels of 42 dBA CNEL, which would meet the City's interior noise standard of 45 dBA CNEL. Mitigation Measure NOI-1.2 below would include modifications to ensure that buildings would comply with the City's noise and land use compatibility standards and reduce interior noise impacts. Therefore, with implementation of Mitigation Measures NOI-1.1 and NOI-

1.2, construction and operational noise impacts associated with the proposed project would be less than significant.

Mitigation Measure NOI-1.1 The project contractor shall implement the following measures during construction of the proposed project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities.
- Ensure that all general construction related activities are restricted to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday, consistent with the City's Noise Ordinance.
- Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

Mitigation Measure NOI-1.2 The project contractor shall implement the following measures during construction of the proposed project:

- In order for windows and doors to remain closed, mechanical ventilation such as air conditioning shall be provided for all units.
- All windows and glass doors shall be rated STC 26 or higher such that the noise reduction provided will satisfy the interior noise standard of 45 dBA CNEL.

- ***Impact NOI-4:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to noise.*

Finding: Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment (14 CCR § 15091(a)(1)).

As discussed above, the project would require implementation of noise reduction requirements and noise insulation features in project design to fulfill the City's normally acceptable interior noise level criterion. With implementation of Mitigation Measure NOI-1.2, interior noise levels would be reduced to 45 dBA or less and would be acceptable under the City's land use compatibility standards. Therefore, this impact would be less than significant with mitigation, and the project would not contribute to a cumulatively considerable significant noise impact.

Additionally, while construction noise impacts are exempt from specific noise levels limits under the City's Municipal Code, project construction noise would result in a potentially significant impact at the nearest off-site sensitive residential use. With implementation of Mitigation Measure NOI-1.1, which would require that construction equipment is properly equipped with mufflers consistent with manufacturers' standards, staged at the greatest distance possible from sensitive receptors, and would require the project to designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise, the proposed project would not result in adverse noise impacts from construction activities. Although the proposed project may be under construction at the same time as one or more cumulative development projects, each project would be required to implement similar measures as those identified in Mitigation Measure NOI-1.1 to ensure that construction noise levels are reduced to the extent feasible and to ensure that construction activities comply with the City's Noise Ordinance. In addition, construction-related noise impacts would be temporary and would no longer occur once construction of each project is completed. Therefore, construction activities would not be considered a cumulatively considerable contribution to the total noise environment in the project site vicinity, and this impact would be less than significant.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

POPULATION AND HOUSING

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).*

- *The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

PUBLIC SERVICES

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*
    - *Fire protection?*
    - *Police protection?*
    - *Schools?*
    - *Parks?*
    - *Other public facilities?*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

RECREATION

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.*

- *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

TRANSPORTATION

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- ***Impact TRA-3:*** *The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*

- ***Impact TRA-4:*** *The project would not result in inadequate emergency access.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- ***Impact TRA-1:*** *The project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.*

Finding: No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impact is considered significant and unavoidable.

The proposed project would construct bicycle and pedestrian facilities in compliance with City design requirements and with multi-modal transportation goals of the City's Active Transportation Plan or the General Plan. Additionally, the project would result in no conflict with current and planned transit facilities and routes in the City. As such, potential impacts to transit, bicycle and pedestrian facilities would be less than significant.

The Transportation Impact Analysis (TIA) prepared for the proposed project (included as Appendix G of the Draft EIR) conducted an LOS study to identify existing, near-term, and cumulative plus project and without project traffic volumes at study roadway segments and study intersections to identify if any LOS deficiencies would occur under the different scenarios analyzed. The TIA identified that LOS deficiencies would occur at four study intersections under an existing plus project scenario, nine intersections would experience LOS deficiencies under the near-term (2026) plus project scenario, and fourteen intersections would experience LOS deficiencies under the cumulative (2046) plus project scenario. Tables 9-B through 9-D of the TIA illustrate the post-improvement intersection levels of service for the different scenarios. As shown in these tables, implementation of recommended improvements would improve operations at all study intersections to operate at satisfactory LOS levels. As shown in Table 9-H of the TIA, the project would pay into the Clovis Development Impact Fee (Clovis DIF) Program and the Regional Transportation Mitigation Fee (RTMF) as applicable to fund recommended improvements. Therefore, the intersections are forecast

to operate at a satisfactory LOS with the implementation of the recommended improvements and impacts to the study intersections' LOS would be less than significant.

The TIA also identified that three roadway segments are forecast to operate at an unsatisfactory LOS under the near-term (2026) plus project scenario, and eight roadway segments are forecast to operate at an unsatisfactory LOS under the cumulative (2046) plus project scenario. All local City of Clovis study roadways segments would be able to implement improvements via payment to the Clovis DIF Program to improve operations and operate at satisfactory LOS levels.

However, the diverge segment at the SR-168 westbound Herndon Avenue Off-Ramp, under Caltrans jurisdiction, is forecast to operate at an unsatisfactory condition (LOS F) during PM peak hours under existing, near-term (2026) and cumulative (2046) conditions. As such, improvements would be required at this off-ramp location to improve traffic operations on the freeway mainline. The project would be subject to payment of to the RTMF Program for its fair share contribution to regional improvements. The RTMF is intended to ensure that future development contribute its fair share towards the costs of infrastructure to mitigate the cumulative indirect regional transportation impacts of new growth in a manner consistent with the provisions of the Mitigation Fee Act.

However, since the project has no direct control of implementing improvements at a Caltrans facility, and implementation of recommended improvements would be subject to Caltrans implementation schedule, which is unknown at this time, the LOS deficiency at this location would remain significant and unavoidable.

- ***Impact TRA-2:*** *The proposed project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b).*

Finding: No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impact is considered significant and unavoidable.

The TIA for the proposed project includes a detailed VMT analysis that follows VMT analysis methodology of the City's TIA Guidelines. As recommended in the TIA Guidelines, the VMT analysis for the project was conducted using the Fresno COG Activity Based Model (ABM). The model database was updated with the project land use to calculate project VMT. The project would have a significant VMT impact if the baseline project VMT per capita is greater than 87 percent of the baseline Fresno County VMT per capita. Based on the TIA Guidelines, baseline Fresno County VMT per capita is 16.1 and the corresponding threshold is 14.1 (which is 87 percent of 16.1). Therefore, the project would have a significant VMT impact if the project VMT per capita is greater than 14.1. Based on the Fresno COG ABM model output, the project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold. Therefore, based on the TIA Guidelines, the project would have a significant VMT impact.

When a lead agency identifies a significant CEQA impact, the agency must identify feasible mitigation measures in order to avoid or substantially reduce that impact. VMT impacts can be mitigated through more behavioral changes. Enforcement of mitigation measures will be subject to the mitigation monitoring requirements under CEQA, as well as the regular police powers of the agency. These measures can also be incorporated as a part of plans, policies, regulations, or project

designs. Project design features that encourage mode shift from automobiles to transit or nonmotorized modes can therefore help reduce project VMT as well.

As per information provided by the Project Applicant, the project intends to implement project design features that would help reduce project VMT, and VMT reduction that can be achieved by the project's design features was estimated using the most recent CAPCOA's "*Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*" (Handbook) dated December 2021[1]. These design features include pedestrian infrastructure both internal to the project site and along the project frontage, internal circulation improvements for increased street connectivity, bicycle infrastructure and improvements, and EV parking and charging infrastructure. Implementation of the above project design features may possibly reduce the project's VMT by approximately up to 4.24 percent. However, due to the nature of the project (i.e., single family residential development) and its location, which necessitates travelling off-site to access a variety of services, the project design features identified could potentially help offset some of the VMT impacts of the project but will not reduce the impact to a less than significant level. Therefore, the project will have a significant and unavoidable impact.

- ***Impact TRA-5:*** *The proposed project, in combination with past, present, and reasonably foreseeable projects, would contribute to a significant cumulative impact with respect to transportation.*

Finding: No feasible mitigation measures are available to mitigate the impact to a less than significant level. Therefore, impact is considered significant and unavoidable.

The proposed project would be consistent with applicable regulations, including the City's General Plan policies and ATP guidelines as it relates to transit, bicycles, and pedestrian facilities, as described above. The proposed project would not conflict with existing and planned transit facilities in the City, and would construct bicycles, and pedestrian facilities that would increase the connectivity of the City and further implement the City's General Plan policies and meet ATP multi-modal transportation goals. The proposed project would also not include the construction of hazardous or incompatible design features in the project site. The proposed project's plans would be subject to review and approval by the CFD and the City's Engineering Division to ensure the project includes adequate emergency access.

The TIA identifies roadways that would conflict with LOS standards of the Cities of Clovis and Fresno, and Caltrans with implementation of the proposed project. In most cases, in combination with cumulative conditions, the roadways and segments would be improved to meet the standards of Clovis, Fresno, and Caltrans. However, one diverge segment in Caltrans' jurisdiction is unlikely to be improved to meet Caltrans' standards prior to implementation of the proposed project due to the project having no direct control of implementing improvements at a Caltrans facility and Caltrans' timing schedule for implementation of recommended improvements being unknown at this time. As

[1] California Air Pollution Control Officers Association's (CAPCOA). 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*. December.

discussed above, implementation of the proposed project would result in conflicts with policies related to LOS standards that would not be able to be improved due to existing constraints. As a result, a significant and unavoidable cumulative impact would occur.

Further, the proposed project's VMT was calculated to be 17.8 VMT per capita, 26.4 percent higher than the City's VMT per capita threshold of 14.1.

As described in detail in the TIA and the Draft EIR, VMT impacts may be mitigated through behavioral changes in travel/commute patterns. Enforcement of VMT mitigation measures will be subject to the mitigation monitoring requirements under CEQA, as well as the regular police powers of the agency. These measures can also be incorporated as a part of plans, policies, regulations, or project design features. As such, project design features should not be differentiated in general from 'mitigation measures', since the ultimate intent of project design features is also to help offset the VMT impacts.

Additionally, project VMT can only be reduced by changes in residents' behavioral pattern. Project VMT, or in general average VMT for project residents is a function of regional and project location, neighborhood and surrounding land uses, local access to amenities, availability of different modes of transportation, among others. As such, projects that are in close proximity to complementary land uses and transportation mode choices tend to exhibit low VMT trends. Given the location of the project, the project has limited options of surrounding land uses and transportation modes. As such, the project has limited options for VMT reduction through appropriate mitigation measures.

Typically, within the state of California, California Air Pollution Control Officers Association's (CAPCOA) "*Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers*" dated December 2021 is recognized as a compliant source of VMT reduction measures. These measures, with the exception of the ones project would be implementing as project design features, were evaluated on comparison with the project and was estimated infeasible to implement, because of several type of constraints. As such, only after conducting an extensive review of all VMT reduction options listed in the CAPCOA manual, the EIR concluded that the project VMT impact could not be mitigated. These measures include mitigations related to land use, trip reduction programs, parking or road pricing/management, neighborhood design and transit. Measures related to trip reduction programs could only be implemented by employers and is not applicable to residential projects. Measures related to parking or road pricing/management is only applicable to multifamily residential projects.

Additionally, Clovis Transit Stageline Routes 10 and 80 operate within the Study Area. Route 10 operates from Monday through Saturday, while Route 80 operates only on school days, based on the Clovis Unified School District schedule. Route 10 provide access to Fresno State University and Route 80 provides access to the Buchanan Education Complex. Also, Fresno Area Express (FAX) Route 3 operates within the Study Area along Willow Avenue 7 days a week. The route connects communities in Fresno to the different campuses of Clovis Community College. In addition to fixed route services, Round Up is the Clovis paratransit service for disabled City residents. Round Up transit vehicles are all accessible in accordance with the Americans with Disabilities Act (ADA) standards. These are all preexisting transit services available to the Project that will help to reduce

VMT. However, further public transit options may not be feasible because they would not result in usage or ridership sufficient to reduce project VMT to any degree. The theory that an increase in transit service would result in an increase in ridership is not reflected in the research published by the Transit Cooperative Research Board's "*Analysis of Recent Public Transit Ridership Trends" (Transportation Research Board, 2020)* . The research from this analysis shows that the relationship between transit ridership and three other major factors influence ridership: 1) population, 2) transit-dependent population (i.e. zero-vehicle household, and 3) transit service levels (i.e. transit vehicle revenue miles). In dense urban areas like San Francisco where it is very densely populated and residents often do not have vehicles, transit becomes an optimal transportation option and ridership is high. Alternatively, in suburban areas such as north Clovis with lower population density and when residents often have one or more vehicle in the household, increases in ridership would not be proportional to increases in transit service. As such, while public transit facilities in the vicinity of the Project already exists, further public transportation options would merely augment existing options in a manner that is largely duplicative of those services. As a result, significantly increasing transit services available in suburban or rural areas of Clovis is not anticipated to proportionately increase the ridership of the transit. As such, given the location and settings of the project and in the absence of complementary land uses, transit ridership in this area would be limited, and will not proportionately increase by simply increasing transit service. As such, it would be unsupported and speculative to claim that VMT per capita would be significantly reduced more than is already reflected in the Draft EIR by oversaturating transit services in an area that would not fully absorb the saturated transit available. The VMT analysis appropriately assumes a correct level of transit usage.

The project, as described in the TIA and Draft EIR, includes all feasible land use related and neighborhood design related mitigation measures as project design features. These project design features could reduce project's VMT by up to 4.24 percent, this potential reduction would not help the project meet the required threshold of 14.1 VMT per capita.

As a result, a significant and unavoidable VMT impact would occur.

UTILITIES AND SERVICE SYSTEMS

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.*

- *The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.*

- *The project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.*

- *The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.*

- *The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

WILDFIRE

Environmental Effects of the Project Found to Have No Impact on the Environment or Have a Less Than Significant Impact on the Environment

- *Substantially impair an adopted emergency response plan or emergency evacuation plan.*

- *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.*

- *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.*

- *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.*

Environmental Effects of the Project That Are Potentially Significant, but That Can Be Mitigated to a Less Than Significant Level

- None.

Environmental Effects of the Project That Cannot Be Mitigated to a Level Less Than Significant

- None.

MITIGATION MONITORING

An MMRP was prepared for the project and approved by the City (PRC Section 21081.6, Subd. [a][1]; CEQA Guidelines Section 15097). The City will use the MMRP to track compliance with the project mitigation measures. The MMRP will remain available for public review during the compliance period.

SIGNIFICANT IRREVERSIBLE ENVIRONMENT EFFECTS

The State CEQA Guidelines (Section 15126) require a discussion of the significant irreversible environmental changes that would be involved in a project should it be implemented. The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms.

CEQA requires that EIRs assess whether the proposed project would result in significant irreversible changes to the physical environment. The CEQA Guidelines discuss three categories of significant irreversible changes that should be considered. Each is addressed below.

As mandated by the CEQA Guidelines, an EIR must address any significant irreversible environmental change that would result from project implementation. According to Section 15126.2(d) of the CEQA Guidelines, such a change would occur if one of the following scenarios is involved:

- The project would involve a large commitment of nonrenewable resources;
- Irreversible damage would result from environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project would result in the wasteful use of energy).

The environmental effects of the proposed project are thoroughly discussed in Section 4.0, Evaluation of Environmental Impacts, and summarized in the Executive Summary. Implementation of the project would require the long-term commitment of natural resources, as discussed below.

Changes in Land Use Which Commit Future Generations

The proposed project would involve the development of land in the project site currently used for agricultural production. Although the proposed development would commit future generations to using the project site for developed uses rather than agricultural purposes, such a commitment is consistent with planned residential uses for the project site, as identified in the City's General Plan. The General Plan has anticipated development in the project site that commits future generations, which was assessed under the General Plan EIR; the proposed project merely implements and carries out the vision of the General Plan (Draft EIR, page 6-2).

Irreversible Damage from Environmental Accidents

Demolition and construction activities associated with implementation of the proposed project would involve some risk for environmental accidents. However, as discussed in Section 3.9, Hazards and Hazardous Materials, of the Initial Study, accidental spills and soil contamination would be addressed by City, State, and federal agencies, and would follow professional industry standards for safety and construction. Although there is a possibility for contaminated soil to be encountered during grading, excavation, and/or ground disturbance associated with implementation of the proposed project, it is likely that such contamination may have resulted from agricultural operations within the project site. However, the risks of accidental contamination from handling construction

materials or transport of these materials off site would be reduced to a less-than-significant level through compliance with the many federal, State, and local regulations regarding the handling and disposal of such construction materials. Additionally, the residential land use proposed by the proposed project would not include any uses or activities that are likely to contribute to or be the cause of a significant environmental accident, such as industrial-related spills or leaks. As a result, the proposed project would not pose a substantial risk of environmental accidents (Draft EIR, page 6-2 and 6-3).

Consumption of Nonrenewable Resources

Approval and implementation of actions related to development of the project would result in an irretrievable commitment of nonrenewable resources such as energy and construction materials. As discussed in Section 3.6, Energy, of the Initial Study, the projected electricity demands of the proposed project would be consistent with typical usage rates for residential uses in the City of Clovis, and would not result in a significant adverse impact related to the provision of electricity. Therefore, the projected demand of the proposed project would not result in a significant adverse impact related to the provision of electricity.

In addition, the proposed project would comply with Title 24 of the CCR, which requires conservation practices that would limit the amount of energy (California Energy Code Building Energy Efficiency Standards [Title 24, Part 6]) consumed through implementation of the proposed project, as well as with all applicable California Green Building Standards Code (CALGreen Code) building efficiency standards (Title 24, Part 11) and mandatory residential building requirements in the California Energy Code Building Energy Efficiency Standards (Title 24, Part 6) (as required by State law).

Furthermore, implementation of the proposed project would also result in an increased demand for potable water and generation of wastewater. As discussed in Section 3.10, Hydrology and Water Quality, and Section 3.19 Utilities and Service Systems, the project is consistent with growth under the City's General Plan and covered under the City's 2020 Urban Water Management Plan Update. The proposed project would have sufficient water supplies available to meet future demand during normal, dry and multiple dry years. The adequacy of the water supply for the project is thus consistent with the basis of the analysis of the City's water supply in the adopted 2020 Urban Water Management Plan Update.

Although the construction and operation of the proposed project would involve the use of non-renewable resources, through the inclusion of energy-conserving features of the proposed project, and compliance with applicable standards and regulations, the proposed project would not represent an unjustified use of such non-renewable resources (Draft EIR, page 6-3).

GROWTH INDUCEMENT

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project or the construction of additional housing, either directly or indirectly, could foster economic or population growth in the surrounding environment.

As described in Section 3.14, Population and Housing, of the Initial Study prepared for this EIR, implementation of the proposed project would not exceed the City's projections for population growth in the project site, as the project site is located within the Heritage Grove Area, a planned growth area identified in the General Plan. As such, additional housing units and population resulting from implementation of the proposed project have been anticipated by the City and do not exceed projections of the City. Development of the proposed project would involve construction activities that could generate some temporary employment opportunities. However, given the temporary nature of such opportunities, it is unlikely that construction workers would need to relocate to the City or nearby communities. Thus, the proposed project would not be considered growth-inducing from an employment perspective, and the proposed project would not induce substantial unplanned population growth in the City, either directly or indirectly. This impact would be considered less than significant.

As discussed in Section 3.15, Public Services, and Section 3.19, Utilities and Service Systems, of the Initial Study, the project site would be served by the City's public service or utility providers, including police protection services, fire prevention services, water, wastewater, telecommunications, electricity, and natural gas. The proposed project includes physical improvements to accommodate growth which would create an increased demand for public services and utilities within the project site. As the project site is currently not annexed to the City, the Project Applicant would be required to complete the annexation process with the Fresno County Local Agency Formation Commission (Fresno LAFCO) and the City, and pay required processing fees for the annexation process. Once the project site is annexed into the City, to address impacts to public services and utilities, the Project Applicant would be required to pay applicable impact fees in effect at the time the development application for the proposed project is submitted. City staff would review the site plan for the project to ensure the adequate provision of public services and utilities. As the project site is located within the Heritage Grove Area, a planned growth area identified in the General Plan, and installation of infrastructure and provision of services would accommodate planned growth in the project site, the provision of services and construction of utilities' infrastructure for the proposed project would not induce substantial unplanned population growth in Clovis, either directly or indirectly, and this impact would be less than significant.

Development of the proposed project would involve construction activities that could generate some temporary employment opportunities. However, given the temporary nature of such opportunities, it is unlikely that construction workers would need to relocate to the City or other communities near the project site because of the proposed project. Thus, the proposed project would not be considered growth-inducing from an employment perspective (Draft EIR, page 6-1 and page 6-2).

PROJECT ALTERNATIVES

Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

An alternative may be "infeasible" if it fails to achieve the lead agency's underlying goals and objectives with respect to the project. Thus, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors" of a project (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 401, 417).

ALTERNATIVES CONSIDERED IN THE EIR

The following alternatives to the project are evaluated in detail in the EIR, as described below:

- **Alternative 1: No Project Alternative:** Under the No Project Alternative, the project site would not be developed, and existing land uses would remain. No modifications to existing site access or infrastructure would occur, and the annexation of 246 acres to the City of Clovis would not occur.

- **Alternative 2: Reduced Project Alternative:** Under the Reduced Project Alternative, the proposed project would reduce the proposed density of 8.25 dwelling units per acre for (DU/acre) for the proposed project to 4.12 DU/acre, for a total of 295 residential units. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project. Annexation 246 acres, as proposed by the project would occur.

- **Alternative 3: Increased Phase Density Alternative:** Under the Increased Phase Density Alternative, 590 residential units would be constructed within the 71.54-acre project site, but the residential units would be constructed on approximately 24 acres on northern portion of the project site and 24 acres on the southern portion of the project site to reduce the overall construction period. The remaining approximately 23 acres of the project would be developed as public open space. Overall density of the project site would remain the same as the proposed project (8.25 DU/acre), but each 24-acre development area would have density of 12.3 DU/acre. Proposed site access and infrastructure improvements would remain the same as those identified for the proposed project. Annexation 246 acres, as proposed by the project would occur.

Alternative 1: No Project Alternative

The No Project Alternative would avoid all of the less than significant and significant unavoidable impacts of the proposed project. However, the No Project Alternative would also not achieve any of the objectives of the proposed project. The No Project Alternative would not: (a) provide residential housing opportunities that are visually attractive and accommodate future housing demand in

Clovis; (b) establish a mixture of housing types, sizes, and densities that collectively provide for local and regional housing demand; (c) implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; provide infrastructure that meets City Standards and is integrated with existing and planned facilities and connections; and (d) develop a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements.

Alternative 2: Reduced Project Alternative

The Reduced Project Alternative would involve reducing the size of the proposed project by reducing the proposed residential density of 8.25 DU/acre in the site to a density of 4.12 DU/acre, and reducing the total proposed residential units from 590 to 295. The Reduced Project Alternative would partially address the City of Clovis' future housing demand by providing a lower amount of visually attractive residential housing opportunities; partially meet local and regional housing demand by providing a single housing type, size and density; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. However, because this alternative would provide half of the residential units and minimize mixture of housing types of the proposed project, this alternative would partially meet the objectives of the project.

Alternative 3: Increased Phase Density Alternative

The Increased Phase Density Alternative would involve focusing development of the proposed 590 single-family residences, but the development would occur in two, approximately 24-acre areas located in the southern and northern portions of the project site. The central portion of the project site, approximately 23 acres in size, would be developed as open space. The Increased Phase Density Alternative would accommodate future housing demands in Clovis by providing visually attractive single-family residences; partially provide for local and regional housing demand by establishing a single housing type, size, and density to accommodate higher residential density on the project site. Additionally, this alternative implements the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provides integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. Because this alternative would provide the same number of units, but would minimize mixture of housing types included in the proposed project, this alternative would partially meet the objectives of the project.

Environmentally Superior Alternative

The No Project Alternative has the least impact to the environment because it would not result in any development or new physical impacts. While this alternative would lessen or avoid the impacts of the proposed project, the beneficial impacts of the proposed project—including creating housing to meet local and regional housing demands—would not occur. Further, none of the Project Objectives would be met, including providing residential housing opportunities that are visually attractive and accommodate the future housing demand in Clovis; establishing a mixture of housing types, sizes and densities that collectively provide for local and regional housing demand; implementing the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; providing infrastructure that meets City Standards and is integrated with existing and

planned facilities and connections; and developing a project that meets City Standards by implementing a logical phasing plan for development of public infrastructure improvements. As such, this alternative is rejected as infeasible. In addition, under CEQA, if the No Project Alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives (*CEQA Guidelines* Section 15126.6(e)(2)).

The Increased Phase Density Alternative would result in similar impacts to the proposed project under most resource topics, except Energy, Greenhouse Gas Emissions, and Noise. Under this alternative, construction Energy impacts would be fewer than the proposed project due to reduced construction duration due to increased density on the northern and southern portions of the project site, resulting in lower construction energy impacts. Additionally, operational impacts related to Greenhouse Gas Emissions would be fewer under this alternative due to the higher density development proposed. In terms of Noise impacts, this alternative would result in shorter overall construction period, which would reduce the duration of noise-generating construction. Under this alternative, project objectives would be partially met, as this alternative would partially provide for local and regional housing demand by establishing a single housing type, size, and density to accommodate higher residential density on the project site; accommodate future housing demands in Clovis by providing visually attractive single-family residences; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. Further, this alternative would not be able to reduce the significant and unavoidable impact to Transportation to a less than significant level, because the significant and unavoidable LOS and VMT impacts that would result from the proposed project could still occur. As such, this alternative is rejected as infeasible.

The Environmentally Superior Alternative would be the Reduced Project Alternative. Overall, this alternative would lessen significant and less-than-significant environmental impacts or result in impacts similar to those associated with the proposed project. The Reduced Project Alternative would partially achieve Project Objectives, as it would partially address the City of Clovis' future housing demand by providing a lower amount of visually attractive residential housing opportunities; partially meet local and regional housing demand by providing a single housing type, size and density; implement the City's General Plan Land Use Element goal to facilitate annexation of large areas of land; and provide integrated and planned infrastructure and logical phasing of public improvements in compliance with City Standards. However, this alternative would also not be able to reduce the significant and unavoidable LOS and VMT impacts that were identified for the proposed project. As such, this alternative is rejected as infeasible.

This page intentionally left blank

STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to Section 21081 of the California Public Resources Code and Section 15093 of the CEQA Guidelines, the City adopts and makes the following statement of overriding considerations regarding the remaining significant unavoidable impacts of the project, as discussed above, and the anticipated economic, social, and other benefits of the project.

The City has carefully considered and balanced the benefits of the proposed project against its unavoidable environmental risks in determining that the specific economic, legal, social, technological, or other benefits outweigh the unavoidable significant adverse environmental effects related to transportation. Section 15093(b) of the State CEQA Guidelines provides that when the decision of the public agency results in the occurrence of significant impacts that are identified in the EIR, the agency must state in writing the reasons to support its actions based on the EIR and/or other information in the record. The reasons set forth below are based on the EIR and other information in the record.

This Statement of Overriding Considerations is based on the City's review of the Draft EIR, Final EIR, and other information in the administrative record. Based upon the City's review and the substantial evidence in the administrative record, including but not limited to the EIR, the City finds that the benefits of the project outweigh its unavoidable adverse environmental effects, and furthermore, finds that such adverse, environmental effects are acceptable. The City also finds and determines that (1) the majority of the significant impacts of the project will be reduced to less-than-significant levels by implementation of the mitigation measures recommended in these findings; (2) the City's approval of the project as proposed will result in certain significant adverse environmental effects that cannot be avoided or reduced to a less-than-significant level even with the incorporation of all feasible mitigation measures into the project; and (3) there are no other feasible mitigation measures or feasible project alternatives that will further mitigate, avoid, or reduce to a less-than significant level the remaining significant environmental effects.

In light of the environmental, social, economic, and other considerations identified in the findings for the project, the objectives of the project, and the considerations set forth below related to this project, the City chooses to approve the project because, in its view, the economic, social, technological, and other benefits resulting from the project substantially outweigh the project's significant and unavoidable adverse environmental effects.

The benefits and reasons for the approval of the project despite the occurrence of significant unavoidable project impacts related to transportation (Impact TRA-1 – conflict with a program, plan, ordinance or policy addressing the circulation system; Impact TRA-2 – VMT impacts), which create or otherwise contribute to related cumulative impacts, consist of the items listed below.

The substantial evidence supporting the enumerated benefits of the project can be found in the preceding findings, which are herein incorporated by reference; in the project itself; and in the record of proceedings as defined above. Each of the overriding considerations set forth below constitutes a separate and independent ground for finding that the benefits of the project outweigh its significant adverse environmental effects and is an overriding consideration warranting approval

The City finds that the project will have the following economic, social, technological, and environmental benefits, which constitute overriding considerations:

- **The project would address the existing housing shortage in the City of Clovis and in Fresno County, by providing a variety of new housing types that can support the growing needs of the community.**

  The City of Clovis, like many other communities in Fresno County and California, is experiencing a housing shortage. The proposed project would provide approximately 590 new residential units, helping to address this demand. Ensuring that residents have access to suitable housing options is crucial for maintaining a healthy and balanced housing market. As such, the inclusion of different housing types, sizes, and densities in the project would also support the establishment of a vibrant and diverse community in the City, allowing individuals and families of varying needs and financial capacities to find housing that suits them.

- **The project would establish infrastructure improvements that would fulfill existing phased infrastructure plans in place to support fulfillment of the City's General Plan.**

  The project would result in the construction of new infrastructure to integrate the project site with existing utility facilities and service systems in the City, consistent with the City's design standards. These improvements are crucial for enhancing the overall livability and functionality of the project site. Furthermore, the project aligns with the City's phased infrastructure plans outlined in the 2014 Master Service Plan, the 2017 Water Master Plan, the 2017 Wastewater Master Plan, and the 2017 Recycled Water Master Plan. By providing needed connections to the City's service network, these improvements would support the future development of the Heritage Grove area as a whole, minimizing potential disruptions during construction and ensuring the timely and sustainable fulfillment of the needs of planned mixed-use developments in Heritage Grove.

- **The project would carry out the intent of the City's General Plan of developing the Heritage Grove Area.**

  The project aligns with the City's General Plan, specifically the development objectives for the Heritage Grove area. This area is designated for growth and development in the General Plan, with a focus on creating a sustainable and livable community. The project's development for residential use is consistent with the goals and objectives for Heritage Grove, contributing to the long-term development goals envisioned for the City. This ensures that the project not only provides immediate benefits by addressing housing and infrastructure needs but also contributes to the City's overall vision for sustainable growth and development.

Based on the detailed findings made above, the City hereby finds that economic and social considerations outweigh the remaining environmental effects of approval and implementation of the project.

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study (IS) and Environmental Impact Report (EIR) prepared for Tract Map 6343 (herein referred to as the project), for which the City of Clovis (City) is the Lead Agency for environmental review under the California Environmental Quality Act (CEQA). The MMRP, which is provided in Table A, lists mitigation measures recommended in the IS and EIR for the proposed project and identifies mitigation monitoring requirements.

This MMRP has been prepared to comply with the requirements of State law (Public Resources Code Section 21081.6). State law requires the adoption of an MMRP when mitigation measures are required to avoid significant impacts. This requirement facilitates implementation of all mitigation measures adopted through the CEQA process. The MMRP is intended to ensure compliance during implementation of the project.

The MMRP is organized in a matrix format. The first column identifies the mitigation measure. The second column, entitled "Timing for Mitigation Measure," refers to the implementation and schedule of mitigation measures. The third column, entitled "Mitigation Responsibility," refers to the party responsible for implementing the mitigation measure. The fourth column, entitled "Monitoring/Reporting Agency," refers to the agency responsible for oversight or ensuring that the mitigation measure is implemented. The fifth column, entitled "Verification," will be initialed and dated by the individual designated to verify adherence to the project specific mitigation, when the mitigation measure is completed.

This page intentionally left blank

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
4.1: AGRICULTURE AND FORESTRY RESOURCES				
Mitigation Measure AG-2: Prior to issuance of building permits, the Project Applicant shall petition the County of Fresno Board of Supervisors for cancellation of the Williamson Act contract at APN 556-030-014S. The Project Applicant would have to make the required statutory findings a set forth under Government Code Section 51282(a) to cancel the Williamson Act contract. If the County of Fresno determines the required findings are met, the Project Applicant would be required to pay a cancellation fee equal to 12.5 percent of the unrestricted market value of the parcels to the County of Fresno as set forth under Government Code Section 51283(b). After approval of the cancellation petition by the County of Fresno Board of Supervisors, the Williamson Act contract would then be cancelled on APN 556-030-014S, and the Project Applicant would be able to develop uses that comply with the zoning designation of the parcel per the City of Clovis Zoning Code without the proposed development being inconsistent with a Williamson Act contract.	Prior to issuance of a building permit	Project Applicant	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____
The following is not a mitigation measure; however compliance with the Regulatory Compliance measure outlined below would still be required for the project. **Regulatory Compliance Measure AG-3:** Pursuant to California Civil Code 3482.5 and Fresno County Ordinance Code §17.04.100, prior approval of building occupancy permits, the Project Applicant shall provide residents of the project site Right-To-Farm notifications. The Right-To-Farm notification would advise future occupants of the project site that they are residing adjacent to agricultural land that has been active for 3 or more years and that they should expect continued activities associated with agricultural production. The Right-to-Farm notice shall include the following:	Prior to issuance of a building occupancy permit	Project Applicant	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
● It is the declared policy of Fresno County to preserve, protect, and encourage development of its agricultural land and industries for the production of food and other agricultural products. Residents of property in or near agricultural districts or agriculturally zoned land or active agricultural land should be prepared to accept the inconveniences and discomfort associated with normal farm activities. Such inconveniences and discomfort could include but is not limited to the following: Dust generation, heavy equipment operation, noise from heavy equipment operation, dust cropping activity using aircraft, insecticide/pesticide application, no trespassing signage posted on active agricultural land, and the use of crop warmers during cold nights. Consistent with California Civil Code 3482.5 (right-to-farm law), this Right-To- Farm notification provides that an agricultural pursuit, as defined, maintained for commercial uses shall not be or become a nuisance to adjacent land occupied by non-agricultural uses due to a changed condition in a locality after such agricultural pursuit has been in operation for three years.				
4.2: AIR QUALITY				
The following is not a mitigation measure; however compliance with the Regulatory Compliance measure outlined below would still be required for the project. **Regulatory Compliance Measure AIR-2:** Consistent with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site: ● All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.	Prior to issuance of grading permits, during project construction	Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
• All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. • When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.				
4.3: GREENHOUSE GAS EMISSIONS				
Mitigation Measure GHG-1: In order to meet the 2022 Scoping Plan greenhouse gas (GHG) requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs.	Prior to issuance of grading permits	Project Applicant	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
4.4: NOISE				
Mitigation Measure NOI-1.1: The project contractor shall implement the following measures during construction of the proposed project: ● Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. ● Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site. ● Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all construction activities. ● Ensure that all general construction related activities are restricted to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday, consistent with the City's Noise Ordinance. ● Designate a "disturbance coordinator" at the City who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.	Prior to issuance of grading permits, during project construction	Construction Contractor	City of Clovis Planning and Development Services Department	Initials:_____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
Mitigation Measure NOI-1.2: The project contractor shall implement the following measures during construction of the proposed project: ● In order for windows and doors to remain closed, mechanical ventilation such as air conditioning shall be provided for all units. ● All windows and glass doors shall be rated STC 26 or higher such that the noise reduction provided will satisfy the interior noise standard of 45 dBA CNEL.	During project construction	Construction Contractor	City of Clovis Planning and Development Services Department	Initials:_____ Date:_____
Initial Study				
BIOLOGICAL RESOURCES				
Mitigation Measure BIO-1. Nesting Bird Surveys and Active Nest Avoidance. Any initial ground disturbance or tree pruning, or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 10 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.	Prior to project construction, if occurring between February 1 to September 30	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
Mitigation Measure BIO-2: Conduct Surveys for Swainson's Hawk Nests and Implement Avoidance and Minimization Measures. The qualified biologist will conduct surveys for Swainson's hawk (*Buteo swainsoni*) during the nesting season (February 1 to August 31) along the existing trees within the project site. No sooner than 30 days prior to any ground disturbing activity, the qualified biologist will conduct preconstruction surveys of nests identified during the earlier surveys to determine if any are occupied. The initial nesting season surveys and subsequent preconstruction nest surveys will follow the protocols set out in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee [SHTAC] 2000) or guidance current at the time of project implementation. Available database records will be used to support the survey. Any active Swainson's hawk nests (defined as a nest used one or more times in the last 5 years) found within the existing trees on site during the nesting season will be monitored daily by the qualified biologist to assess whether the nest is occupied. If the nest is occupied, the qualified biologist will establish no-work buffers following California Department of Fish and Game's 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, and the status of the nest will be monitored until the young fledge or for the length of construction activities, whichever occurs first. Adjustments to the buffer(s) may be made in consultation with the California Department of Fish and Wildlife (CDFW).	Prior to project construction, if occurring between February 1 and August 31	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
If an occupied Swainson's hawk nest site is to be removed, an incidental take permit under the California Endangered Species Act (CESA) will be obtained, and impacts will be minimized through permitting with the CDFW and fully mitigated.				
Mitigation Measure BIO-3: Conduct Pre-construction Clearance Surveys for Burrowing Owl. A pre-construction clearance survey will be conducted in the vicinity of the existing residence on site, as well as within the disturbed annual grassland and embankments of the Enterprise No. 109 Canal by a qualified biologist for burrowing owl (*Athene cunicularia*) no more than 30 calendar days prior to initiation of ground disturbance activities. All surveys will follow the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation methodology, or guidance current at the time of project implementation, and results shall be delivered to CDFW and the City of Clovis. If the survey results find an active burrow, the Project Applicant must coordinate with the CDFW to obtain applicable agency approval/permit prior to any ground disturbance activities on the site.	Prior to issuance of grading permits	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____
Mitigation Measure BIO-4: Passive Relocation Measures for Burrowing Owl. If burrowing owl (*Athene cunicularia*) are detected during the pre-construction surveys, occupied burrows will not be disturbed during the nesting season (February 1 through August 31 for owls and other raptors). The non-disturbance buffer will include a minimum 330-foot (100-meter) buffer zone around any occupied burrow unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either (1) burrowing owls have not begun egg laying and incubation, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The sizes of individual buffers may be modified through coordination with the CDFW based on site-specific conditions and existing disturbance levels. During the non-nesting season or if the qualified biologist determines	Prior to project construction, if burrowing owl are detected during the pre-construction surveys	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
either (1) or (2) above, the Project Applicant will coordinate with the CDFW to construct artificial burrows and passively relocate the owl(s). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond approximately 160 feet (50 meters) from the impact zone and that are within or contiguous to a minimum of 6.5 acres of foraging habitat for each pair of relocated owls (California Burrowing Owl Consortium 1993). If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and for review by CDFW prior to passive relocation activities. Owls shall be excluded from burrows in the immediate impact zone and within an approximately 160-foot (50-meter) buffer zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow shall be provided for each burrow that will be excavated in the project impact zone. The project site shall be monitored daily for 1 week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags shall be inserted into the tunnels.				

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
The following is not a mitigation measure; however compliance with the Regulatory Compliance measure outlined below would still be required for the project. **Regulatory Compliance Measure BIO-1: Agency Coordination for Enterprise No. 109 Canal.** Prior to any modifications to Enterprise No. 109 Canal, it is recommended to consult with the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) to verify the feature's jurisdictional status and obtain applicable permit(s) and/or authorization(s). If direct modifications to the canal are proposed, a notification of streambed alteration shall be submitted to the CDFW in accordance with Section 1602 of the California Fish and Game Code. Unless categorically excluded under effective definitions or existing documentation confirms that no permit is needed, the Central Valley RWQCB and Sacramento District of the USACE shall be consulted regarding potential permitting needs under the California Water Code and federal Clean Water Act, respectively, associated with the proposed Enterprise No. 109 Canal modifications.	Prior to issuance of grading permits	Project Applicant	City of Clovis Planning and Development Services Department/United States Army Corps of Engineers (USACE)/California Department of Fish and Wildlife (CDFW)/Regional Water Quality Control Board (RWQCB)	Initials: _____ Date:_____
CULTURAL RESOURCES				
Mitigation Measure CUL-1: Consultation with Qualified Historical Specialist for Resources Found During Project Construction. If previously unknown resources are encountered before or during grading activities, construction shall stop within 50 feet of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City of Clovis on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and	Prior to and during project construction, if historic or archeological resources are encountered	Construction Contractor, Qualified Historical Resources Specialist and Qualified Archaeologist	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
evaluation of the finds in accordance with Section 15064.5 of the *State CEQA Guidelines*. If the resources are determined to be unique archeological resources as defined under Section 15064.5(c)(1) of the *State CEQA Guidelines*, measures shall be identified by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of green space, parks, or open space in undeveloped areas of the project site, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the protection measures. Any historical artifacts recovered as a result of mitigation shall be provided to a City of Clovis-approved institution or person who is capable of providing long-term preservation to allow future scientific study. A report of findings shall also be submitted to the Southern San Joaquin Valley Information Center.				
Mitigation Measure CUL-2 In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains.	During project construction, if human remains are encountered	Project Applicant and Construction Contractor	City of Clovis Planning and Development Services Department	Initials: _____ Date:_____

Table A: EIR Mitigation Monitoring and Reporting Program

Mitigation Measures	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the Project Applicant shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the Project Applicant has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The Project Applicant shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.				
GEOLOGY AND SOILS				
Mitigation Measure GEO-1: If any potentially significant paleontological resources are discovered during grading activities, all construction activities shall stop within 50 feet of the find and a certified professional paleontologist shall provide recommendations and mitigation measures to protect the resource. If a potentially significant resource is encountered, then the qualified professional paleontologist, the City of Clovis, and the Project Applicant shall arrange for either (1) total avoidance of the resource or (2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the City of Clovis as verification that the provisions for managing unanticipated discoveries have been met.	Prior to and during project construction, if paleontological resources are encountered	Construction Contractor, Project Applicant and Qualified Paleontologist	Department of Planning and Development	Initials: _____ Date:_____

This page intentionally left blank

County of Fresno
DEPARTMENT OF PUBLIC HEALTH
David Pomaville, Director

January 14, 2021

LU0021179
2604

Maria Spera, Planning Technician II
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Spera:

PROJECT NUMBER: **DRC-21-00003**

DRC-21-00003, A proposal for a 549-lot single family residential subdivision.

APN: 556-030-14, 556-040-05, -07, -08 **ZONING: County AE 20**
ADDRESS: Clovis & Perrin Alignment Avenues

Recommended Conditions of Approval:

- Construction permits for the development should be subject to assurance of sewer capacity of the Regional Wastewater Treatment Facility. Concurrence should be obtained from the California Regional Water Quality Control Board (RWQCB). For more information, contact staff at (559) 445-5116.

- Construction permits for the development should be subject to assurance that the City of Clovis community water system has the capacity and quality to serve this project. Concurrence should be obtained from the State Water Resources Control Board, Division of Drinking Water-Southern Branch. For more information call (559) 447-3300.

- The proposed construction project and proximity to an existing thoroughfare has the potential to expose nearby residents/tenants to elevated noise levels. Consideration should be given to your City's municipal code.

- As a measure to protect ground water, all water wells and/or septic systems that exist or have been abandoned within the project area should be properly destroyed by an appropriately licensed contractor.

- Should any underground storage tank(s) be found during the project, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health Division. Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

The following comments pertain to the demolition of existing structure(s):

- Should the structure(s) have an active rodent or insect infestation, the infestation should be abated prior to demolition of the structure(s) in order to prevent the spread of vectors to adjacent properties.

- In the process of demolishing the existing structure(s), the contractor may encounter asbestos containing construction materials and materials coated with lead based paints.

- If asbestos containing materials are encountered, contact the San Joaquin Valley Air Pollution Control District at (559) 230-6000 for more information.

- If the structure(s) were constructed prior to 1979 or if lead-based paint is suspected to have been used in these structures, then prior to demolition and/or remodel work the contractor should contact the following agencies for current regulations and requirements:

  - California Department of Public Health, Childhood Lead Poisoning Prevention Branch, at (560) 620-5600.

  - United States Environmental Protection Agency, Region 9, at (415) 947-8000.

  - State of California, Industrial Relations Department, Division of Occupational Safety and Health, Consultation Service (CAL-OSHA) at (559) 454-5302.

REVIEWED BY:

Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II (559) 600-33271

KT

cc: Deep Sidhu- Environmental Health Division (CT. 55.25)
Great Bigland LP- Applicant (lorrens@harbour-engineering.com)

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

September 20, 2023

Lily Cha-Haydostian
City of Clovis
Department of Planning and Development Services
1033 Fifth Street
Clovis, CA, 93612

Project: Tentative Map 6343 – Wilson Premier Homes

District CEQA Reference No: 20230770

Dear Ms. Cha-Haydostian:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Tentative Map (TM) from the City of Clovis (City) for the Wilson Premier Homes project. Per the TM, the project consists of 590 single-family residences (Project). The Project is located on the south side of Behymer Avenue between Sunnyside and Minnewawa Avenue, in Clovis, CA.

The District offers the following comments at this time regarding the Project:

1) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM2.5) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM10, PM2.5 standards.

The District's initial review of the Project concludes that emissions resulting from construction and/or operation of the Project may exceed any of the following significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://www.valleyair.org/transportation/GAMAQI.pdf. The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

1b) Operational Emissions

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://www.valleyair.org/transportation/GAMAQI.pdf.

Recommended Mitigation Measure: At a minimum, project related impacts on air quality should be reduced to levels below the District's significance thresholds through incorporation of design elements such as the use of cleaner Heavy Heavy-Duty (HHD) trucks and vehicles, measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at: https://ww2.valleyair.org/media/ob0pweru/clean-air-measures.pdf

1c) Recommended Model for Quantifying Air Emissions

Project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

2) Health Risk Screening/Assessment

The City should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):
A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

Health Risk Assessment:
Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here: http://www.valleyair.org/transportation/ceqa_idx.htm.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org

- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambien Air Quality Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website: www.valleyair.org/ceqa.

4) Voluntary Emission Reduction Agreement

Criteria pollutant emissions may result in emissions exceeding the District's significance thresholds, potentially resulting in a significant impact on air quality. When a project is expected to have a significant impact, the District recommends the environmental review also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include

electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of agricultural equipment with the latest generation technologies.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document includes an assessment of the feasibility of implementing a VERA.

5) Clean Lawn and Garden Equipment in the Community

Since the Project consists of residential development, gas-powered residential lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: http://www.valleyair.org/grants/cgym.htm and http://valleyair.org/grants/cgym-commercial.htm.

6) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

7) Electric Infrastructure

To support and accelerate the installation of electric vehicle charging equipment and development of required infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District recommends that the City

and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit www.valleyair.org/grants/chargeup.htm for more information.

8) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

8a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

8b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 50 dwelling units of residential.

The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design. One AIA application should be submitted for the entire Project.

Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

The AIA application form can be found online at: http://www.valleyair.org/ISR/ISRFormsAndApplications.htm.

District staff is available to provide assistance, and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

8c) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at: http://www.valleyair.org/busind/comply/asbestosbultn.htm.

8d) District Rule 4601 (Architectural Coatings)

The Project will be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: http://www.valleyair.org/rules/currntrules/r4601.pdf

8e) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.*

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at:
https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx

Information about District Regulation VIII can be found online at:
http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm

8f) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

9) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Eric McLaughlin by e-mail at Eric.McLaughlin@valleyair.org or by phone at (559) 230-5808.

Sincerely,

Brian Clements
Director of Permit Services

For: Mark Montelongo
Program Manager

County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

February 15, 2024

Lily Cha-Haydostian
Senior Planner, Planning Division
City of Clovis
1033 Fifth Street
Clovis, CA 93612

SUBJECT: City of Clovis TM 6343- 590-lot single-family residential subdivision

Dear Ms. Cha-Haydostian:

The County of Fresno appreciates the opportunity to review and comment on the subject project being reviewed by the City of Clovis.

The documents received for this review were circulated to our various Fresno County Public Works and Planning divisions. See comments below.

Fresno County Transportation Division:

- The County requires the completion of a Transportation Impact Study (TIS) to assess the potential impacts of the project on county facilities.

Fresno County Road Maintenance and Operations Division:

- A traffic impact study (TIS) is required to determine the impact of additional traffic to nearby County maintained roads. Depending on results of the transportation study, RMO may have additional comments or conditions.

- Annexation should include the full width of Behymer Ave and Sunnyside Ave along the proposed annexation area and should include the full span of state bridge CSBN: 42C0300 crossing Enterprise Canal.

Fresno County Engineering Division:

- According to FEMA FIRM Panel 1040H and 1580H, portions of the area of the subject property are within the shaded Flood Zone X and Flood Zone AH which is subject to flooding from the 100-year storm.

If you have any questions regarding the information described in this letter, please contact me at eracusin@FresnoCountyCA.gov or (559) 600-4245.

Sincerely,

Elliot Racusin

Elliot Racusin, Planner
Development Services and Capital Projects Division

DR:er:cwm
G:\4360Devs&Pln\PROJSEC\PROJDOCS\Environmental\OAR\City of Clovis\TM 6343\TM 6434 City of Clovis -Response Letter.docx