CITY of CLOVIS

AGENDA • PLANNING COMMISSION

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

REVISED

➡ Denotes Revisions

January 23, 2025 6:00 PM Council Chamber

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

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

Written Comments

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

SCAN ME

- A copy of your written comment will be provided to the Planning Commission noting the item number. If you wish to make a verbal comment, please see instructions below.
- Please be aware that any written comments received that do not specify a particular agenda item will be marked for the general public comment portion of the agenda.

- If a written comment is received after 4:00 p.m. on the day of the meeting, efforts will be made to provide the comment to the Planning Commission during the meeting. However, staff cannot guarantee that written comments received after 4:00 p.m. will be provided to Planning Commission during the meeting. All written comments received prior to the end of the meeting will be made part of the record of proceedings.

CALL TO ORDER

FLAG SALUTE

ROLL CALL

APPROVAL OF MINUTES

1. Planning Commission Minutes for the meeting of December 19, 2024.

COMMISSION SECRETARY COMMENTS

PLANNING COMMISSION MEMBER COMMENTS

PUBLIC COMMENTS - This is an opportunity for the members of the public to address the Planning Commission on any matter within the Planning Commission's jurisdiction that is not listed on the Agenda. In order for everyone to be heard, please limit your comments to 3 minutes or less, or 10 minutes per topic. Anyone wishing to be placed on the Agenda for a specific topic should contact the Planning Division and submit correspondence at least 10 days before the desired date of appearance.

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

➡ 2. Consider Approval - Res. 25-___, CUP1995-009A4, Adopting a Class 32 Categorical Exemption from further environmental review under CEQA and to approve a conditional use permit amendment for the addition of a new, two-story, classroom building and basketball court, with an increase of student capacity to 414 students for the Valley Crescent School located at 547 W. Nees Avenue. Muslim Society of Central California, owner; Michael Eastman, applicant, and representative.

Staff: Marissa Parker, Assistant Planner
Recommendation: Approve

ADJOURNMENT

MEETINGS & KEY ISSUES

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

February 27

March 27

April 17

Pursuant to Government Code section 84308, subdivision (e), any party to a covered proceeding before the Planning Commission is required to disclose on the record of the proceeding any campaign contribution, including aggregated contributions, of more than $500 made within the preceding 12 months by the party or their agent to any Commissioner. The disclosure shall be made as required by Government Code Section 84308, subdivision (e)(1) and California Code of Regulations, Title 2, section 18438.8. No party or their agent, and no participant or their agent, shall make a campaign contribution of more than $500 to any Commissioner during the covered proceeding or for 12 months after a final decision is made in that proceeding. The foregoing statements do not constitute legal advice, and parties and participants are urged to consult with their own legal counsel regarding the applicable requirements of the law.

CLOVIS PLANNING COMMISSION MINUTES
December 19, 2024

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

Flag salute led by Commissioner Bedsted

Present: Commissioners Bedsted, Hatcher, Hinkle, Chair Antuna

Absent: Commissioner Hebert

Staff: Renee Mathis, PDS Director
George Gonzalez, Senior Planner
Lily Cha-Haydostian, Senior Planner
Liz Salazar, Assistant Planner
Marissa Jensen, Assistant Planner
Eric Garcia, Planning Technician I
Sean Smith, Supervising Civil Engineer
Sarai Yanovsky, Civil Engineer
Matt Lear, City Attorney

MINUTES – 6:01
ITEM 1 – APPROVED.

Motion by Commissioner Hinkle, seconded by Commissioner Hatcher, to approve the November 21, 2024, minutes. Motion carried 4-0-1 with Commissioner Hebert absent.

COMMISSION SECRETARY – 6:02
Senior Planner Goerge Gonzalez made a correction to the Planning Commission dates calendar and informed that the Historic Preservation Committee item would not be part of the agenda for this night.

PDS Director Renee Mathis informed that, following the retirement of City Planner Dave Merchen, Senior Planner George Gonzalez would take on the role of City Planner starting January 1, 2025. She also informed that the Deputy City Planner rotation would continue, with Senior Planner Lily Cha-Haydostian currently filling that role, to be followed by Senior Planner McKencie Perez. In addition, Liz Salazar has transitioned from Assistant Planner to Associate Planner.

PLANNING COMMISSION MEMBERS COMMENTS – 6:06
Commissioner Bedsted, Commissioner Hinkle, and Chair Antuna offered congratulations to staff on their advancements. Commissioner Hinkle also wished a Merry Christmas and Happy New Year to City staff and complimented the department's teamwork. Chair Antuna also complimented PDS Director Mathis on her succession planning.

PUBLIC COMMENTS – 6:07
None.

PUBLIC HEARINGS

ITEM 1 - 6:08 – APPROVED – **RES. 24-47**, **CUP2024-012**, ADOPTING A CLASS 1 CATEGORICAL EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW UNDER CEQA AND TO APPROVE A CONDITIONAL USE PERMIT TO ALLOW THE OPERATION OF A BANQUET HALL AT 147 W. SHAW AVENUE. HI TECH HOME BUILDERS LLC, OWNER AND APPLICANT; RAMON SANCHEZ, REPRESENTATIVE.

Motion by Commissioner Hatcher, seconded by Commissioner Bedsted, for the Planning Commission to approve **Resolution 24-47,** a resolution adopting a Class 1 Categorical Exemption from further environmental review under CEQA, and approving a conditional use permit to allow the operation of a banquet hall at 147 W. Shaw Avenue. Motion carried 4-0-1 with Commissioner Hebert absent.

ITEM 2 - 6:17 – APPROVED – **RES. 24-48**, **CUP2024-013**, ADOPTING A CLASS 1 CATEGORICAL EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW UNDER CEQA AND TO APPROVE A CONDITIONAL USE PERMIT TO ALLOW THE OPERATION OF A BEER TAP ROOM IN CONJUNCTION WITH AN ESTABLISHED BREWERY, REBORNE BREWING, WITHIN AN EXISTING BUILDING AT 1018 SAN JOSE AVENUE, SUITE 101. RYAN PARSLEY, APPLICANT, AND CLOVIS APARTMENT GROUP, OWNER.

Motion by Commissioner Bedsted, seconded by Commissioner Hatcher, for the Planning Commission to approve **Resolution 24-48,** a resolution adopting a Class 1 Categorical Exemption from further environmental review under CEQA, and approving a conditional use permit to allow the operation of a beer tap room in conjunction with an established brewery, Reborne Brewing, within an existing building at 1018 San Jose Avenue, Suite 101. Motion carried 4-0-1 with Commissioner Hebert absent.

ADJOURNMENT AT 6:24 P.M. UNTIL the Planning Commission meeting on January 23, 2025.

_____

Alma Antuna, Chairperson

CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

REVISED

➡ Denotes Revisions

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: January 23, 2025

SUBJECT: Consider Approval - Res. 25-___, CUP1995-009A4, Adopting a Class 32 Categorical Exemption from further environmental review under CEQA and to approve a conditional use permit amendment for the addition of a new, two-story, classroom building and basketball court, with an increase of student capacity to 414 students for the Valley Crescent School located at 547 W. Nees Avenue. Muslim Society of Central California, owner; Michael Eastman, applicant, and representative.

Staff: Marissa Parker, Assistant Planner
Recommendation: Approve

ATTACHMENTS:
1. Res. 25-___, CUP1995-009A4
2. Site Plan and Floor Plan
3. Applicant's Operational Statement
4. Correspondence from Commenting Agencies
5. Noise Study Dated April 4, 2024
6. Traffic Impact Analysis Dated December 3, 2024

RECOMMENDATION

Staff recommends that the Planning Commission adopt a resolution finding that that the Project is exempt from further environmental review pursuant to the California Environmental Quality Act ("CEQA") Guidelines section 15332, a Class 32 Categorical Exemption, and approving Conditional Use Permit ("CUP") 1995-009A4, subject to the conditions of approval listed as **Attachment 1A**.

EXECUTIVE SUMMARY

As shown in **Figure 1** below, the applicant is requesting approval of a CUP amendment for the addition of a new, two-story, classroom building and a basketball court for the Valley Crescent

➡ School located on the north side of Nees Avenues, between N. ~~Minnewawa~~ Willow and N. Peach Avenues, hereinafter referred to as, the "Project." The Project includes the addition of a ±12,500 square foot, two-story classroom building and a ±4,200 square foot basketball court to the existing private school campus. Approval of this request would allow the applicant to proceed with a site plan review (SPR). Although the SPR process is reviewed administratively at the staff level, a conceptual site plan has been provided in **Attachment 2** for informational purposes.

FIGURE 1 - Project Location

BACKGROUND

- General Plan Designation: L (Low Density Residential)
- Existing Zoning: R-1-7500 (Single-Family Residential)
- Lot Size: ±2.42 acres
- Current Land Use: Private School
- Adjacent Land Uses:
  - North: Single-Family Residential
  - South: Single-Family Residential
  - East: Single-Family Residential
  - West: Single-Family Residential
- Previous Entitlements: CUP95-9, 95-9A, 95-9-A2, 95-A3 SPR95-19, 19A,19A2

On August 8, 1995, the Planning Commission approved CUP95-9 which allowed for the development of a day care facility at 547 W. Nees Avenue. The CUP was then amended (CUP95-9A) on February 2, 2004, to allow a private school campus for kindergarten through eighth grade. Following this, the applicant requested a second amendment (CUP95-9A2) to

modify the hours of operation, develop a playground, and install a storage building, which was approved on September 8, 2005. Most recently, CUP95-9A3 was approved in October of 2008 to allow for the use of two (2) permanent modular classroom structures totaling 2,040 square feet. Additionally, CUP95-9A3 permitted a maximum enrollment number of 174 students.
With the present proposal, the Applicant is requesting an increase in enrollment. Further details are provided below under *Project Operations* regarding the proposed enrollment increase.

PROPOSAL AND ANALYSIS
The applicant is requesting approval of this CUP amendment for the addition of a new, two-story, ±12,500 square foot classroom building and a ±4,200 square foot basketball court for the Valley Crescent School as shown in **Attachment 2**. The applicant is also requesting changes to the operational nature of the use, specifically the hours of operation and an increase in student capacity from 174 students to 414 students.

Existing Site and Surrounding Area
The subject property is located on the north side of Nees Avenue, west of N. Peach Avenue. The school is currently operating on the 2.42-acre parcel with an existing 5,205 square-foot classroom building, play areas with an existing shade structure, and two permanent modular buildings. The site also includes a parking area consisting of 31 parking stalls. Single-family residential neighborhoods abut the northern, eastern, and western portions of the property. Single-family residential neighborhoods are also located on the south side of Nees Avenue. Private school campuses are allowed uses within residential areas with an approved CUP.

Project Operations
The school was approved in 2004 and has operated at its existing location for approximately 20 years. The school was approved to accommodate up to 174 students and operate between the hours of 7:30 a.m. to 3:30 p.m., Monday through Friday. In addition, the hours of operation for weekend classes are allowed from 9:00 a.m. to 1:00 p.m.

The applicant has provided a brief operational statement and email correspondence (**Attachment 3**) outlining the operations of the proposed Project. The proposed hours of operation are 7:00 a.m. to 5:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 1:00 p.m. on Saturday and Sunday. Students attend the private school on a traditional school schedule, 7:30 a.m. to 3:30 p.m., Monday through Friday. Operations before 7:30 a.m. and after 3:30 p.m. are utilized by staff to prepare for classes, hold meetings, and other school-related commitments, including after school programs, clubs and sports. There are currently 14 employees, however, the school is in the process of adding 10-12 staff members.

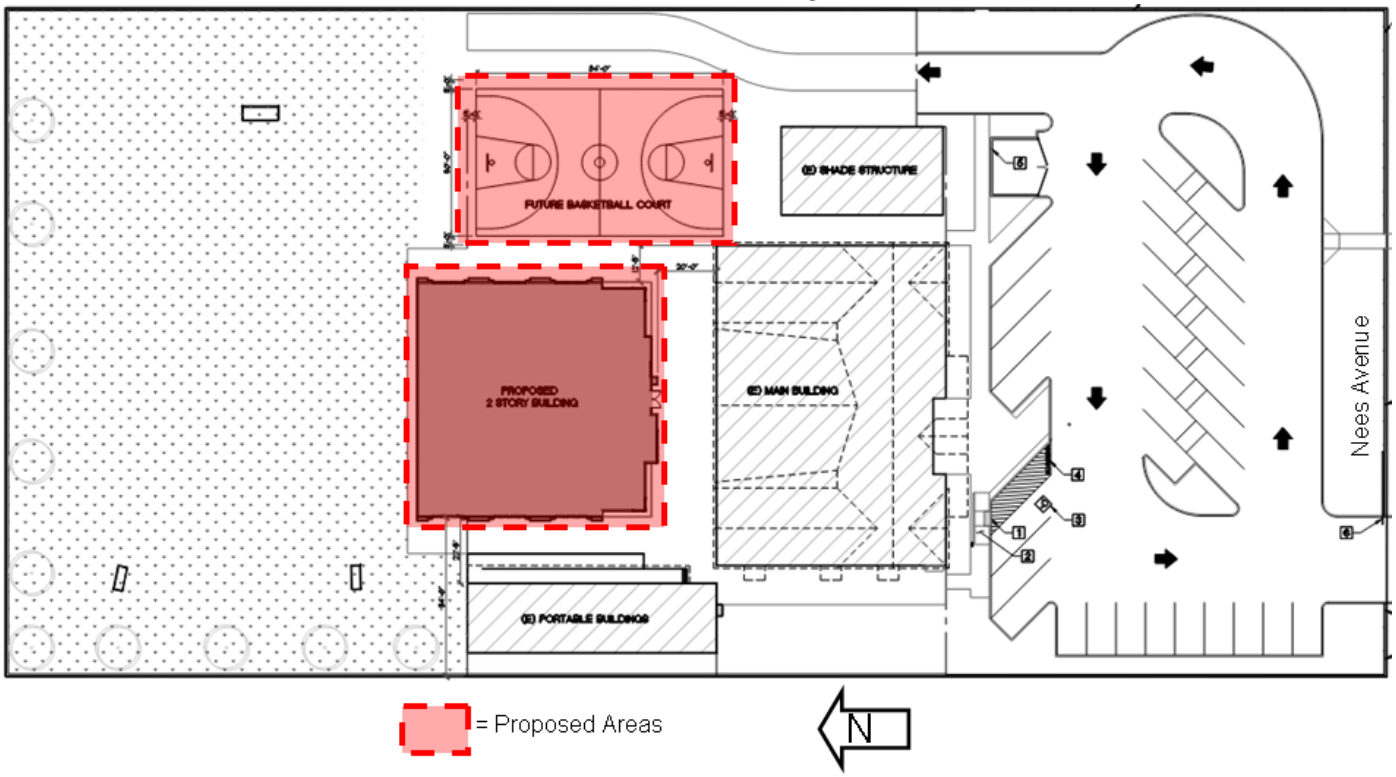
CUP95-9A3 allowed the school to accommodate up to 174 students from kindergarten to eighth grade. Per correspondence with the applicant (**Attachment 3**), the current enrollment is 167 students. With the proposed building addition, the school is requesting an increase of 240 students, totaling 414 students at full capacity. The time frame to reach full capacity is anticipated to be seven (7) years from the completion of construction of the building.

Proposed Site Layout
Figure 2 showcases the site layout, which includes the proposed ±12,500 square foot classroom building and a basketball court in red. The proposed classroom building will be situated behind

the existing main building and setback approximately 160 feet from the rear property line, 27.5 feet from the west property line, and 54 feet from the east property line. The basketball court will be situated just east of the new building.

The Clovis Fire Department initially expressed concerns regarding access to the proposed classroom building. However, the Fire Department has confirmed that the size and nature of the basketball court being located next to the classroom building will allow for an acceptable access point. In the case of an emergency, first-responders will be able to utilize the future basketball court to reach the building from a sufficient distance while also ensuring an adequate turnaround for the truck.

FIGURE 2 - Site Layout



Access, Circulation & Parking

This request does not include any modifications to the existing site access, circulation, and parking. The subject parcel currently has one (1) access point located on Nees Avenue which leads to the parking area. There will be no changes to the overall traffic flow; the circulation pattern will remain largely unchanged.

Requests such as this typically require the applicant to modify or increase the number of parking stalls, as it is likely to intensify the existing use. Parking for school facilities is based upon the number of staff members. Per section 9.32.040 of the Clovis Municipal Code (“CMC”), the required parking ratio for private schools is one (1) space for each faculty and employee member. Based on correspondence with the applicant, the proposed number of staff members for the school is between 24 and 26. The site has 31 existing parking stalls, surpassing the requirement.

Because the operations propose an increase in student capacity from 174 to 414, a traffic study (**Attachment 6**) was conducted to verify required mitigations. The study concluded that with the increase of 240 students, the traffic conditions along Peach, Nees, and Willow Avenues are projected to continue operating at an acceptable level. Upon review of the study, no concerns were raised by staff regarding access, circulation or parking.

Architecture & Building Height

Architectural concepts were provided with the initial application submittal and will be thoroughly vetted through the SPR process. The current elevations have been found by staff to be incompatible with the existing building, based largely on color choice. Staff will work with the applicant on establishing an overall building design and color choice that would be consistent with the existing classroom building. A condition of approval is recommended to require the architecture of the proposed building to be compatible with the existing development and surrounding developments.

The classroom building is proposed at thirty-six feet, eight inches (36'8") in height, which exceeds the requirement for the R-1-7500 Zone District. Per CMC section 9.10.030, the maximum building height for this zone district is 35 feet. The Project will be conditioned to reduce the building height to 35 feet to ensure compliance with Zone District standards and compatibility with surrounding developments.

Noise

The proposed location of the basketball court raised concerns from staff regarding the potential impact of noise on the adjacent residences. The Applicant was required to prepare a noise study (**Attachment 5**) to evaluate the anticipated noise levels specific to the project. The study concluded that, at the maximum, noise levels resulting from the activity would reach 61.5 dBA. Per CMC section 9.22.080, the residential noise level limit is 65 dBA, therefore the noise levels associated with the proposed basketball court are below the City's standards.

Review and Comments by Agencies

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

Comments received are attached (**Attachment 4**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the applicant for their records.

California Environmental Quality Act (CEQA)

The City has determined that this Project is exempt from CEQA pursuant to CEQA Guidelines Section 15332 (Class 32 – In-Fill Development Projects) and that the exceptions identified under Section 15300.2 of the CEQA Guidelines would not be triggered as a result of the Project.

The Class 32 categorical exemption exempts projects that: (a) are consistent with the applicable land use designation, General Plan policies, and zoning; (b) are within city limits on a project site of no more than five (5) acres substantially surrounded by urban uses; (c) are located on sites with no value as habitat for endangered, rare, or threatened species; (d) would not result in significant effects relating to traffic, noise, air quality, and water quality; and (e) is located on a

site that can be adequately served by all utilities. Based on staff's review of the Project, the Project meets each of the parameters for a Class 32 categorical exemption. (Cal. Code Regs., Tit. 14, § 15332.)

The exceptions under CEQA Guidelines section 15300.2 identify further review of an exemption by the project's potential to result in a cumulative impact, significant effect, proximity to a scenic highway, location on or within the vicinity of a hazardous waste site, and/or the potential to negatively impact a historical resource. Based on staff's review, these exceptions would not be triggered by the proposed Project. Therefore, a Notice of Exemption has been completed. Staff will file the notice with the County Clerk if the Project is approved.

The City published notice of this public hearing in *The Business Journal* on Wednesday, January 8, 2025.

REASON FOR RECOMMENDATION
The Project is consistent with the goals and policies of the General Plan, Clovis Municipal Code and the R-1-7500 Zone District. Based on the findings, staff is recommending that the Planning Commission approve CUP1995-009A4, subject to the conditions of approval listed as **Attachment 1A.**

Conditional Use Permit 1995-009A4
The findings required to approve a CUP application include each of the following (CMC § 9.64.050, subd. (C)):

1. The proposed use is conditionally allowed within and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of this Development Code.

   Private school uses are allowed within the R-1-7500 Zone District with an approved conditional use permit. The private school has been operating for 20 years and was initially approved in 2004 with CUP95-9A. This amendment application will allow for the addition of a new building and basketball court area to the existing campus and an increase in the number of students. The Project will be in compliance with applicable provisions, development standards and subject to the conditions of approval. This Project will undergo site plan review to further ensure that the site layout and development standards are met. During the SPR review, the height, setbacks, parking standards, and elevations will be reviewed to ensure that applicable standards are met.

2. The proposed use is consistent with the General Plan and any applicable Specific Plan.

   This Project is consistent with the 2014 Clovis General Plan. The underlying General Plan land use designation of Low Density Residential would remain unchanged, and the existing use is acceptable within the underlying General Plan land use designation of Low Density Residential, according to the 2014 Clovis General Plan and Zoning Code.

3. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.

   The school use was originally established approximately 20 years ago and has been in place for several years in its current form. The existing 5,205 square foot building and two modular buildings have remained mainly unchanged since their development and installation. The Project adds a ±12,500 square foot classroom building, a basketball court, and increases the student capacity to 414 students. Although the capacity of students will increase, the operations of the school will not change significantly with the addition of this Project. The increase in students is expected to occur incrementally for the next several years. Further, the Project will maintain the general circulation pattern by retaining primary ingress/egress from Nees Avenue. A noise study and a traffic study were conducted and found that there will be no significant impact with the addition of the Project.

4. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.

   The proposed building and basketball court will occupy and operate within the existing site, which is physically suitable in size and shape and has the infrastructure in place to support it. The additions will meet the development standards of the R-1-7500 Zone District. Moreover, the Project will be required to comply with all conditions from the Public Utilities Department and Engineering Division, which will further ensure the sites are suitable for the proposed uses.

5. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.

   The Project will comply with all applicable public health standards. Further, as an addition to the existing development, the adequate provisions (i.e. water, sanitation, utilities, etc.) are readily available and accessible to the proposed uses. Although modifications and/or upgrades may be required to the existing infrastructure, the overall site can be adequately served. The Public Utilities Department and Engineering Division has reviewed this Project and has no concerns regarding the serviceability of the site.

   Details and final approval will occur during engineering review, if approved and the Project moves forward. This review will ensure utility services are sufficient to accommodate the Project and impose conditions for upgrades as needed.

6. The proposed project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA) and there would be no potential significant negative effects upon environmental quality and natural resources that would not be properly mitigated and monitored, unless findings are made in compliance with CEQA.

   As identified above under the "California Environmental Quality Act" heading of this staff report, the Project was determined to be categorically exempt. The Project is exempt from CEQA pursuant to CEQA Guidelines section 15332 (Class 32 – In-Fill Development Projects) and that the exceptions identified under section 15300.2 of the CEQA Guidelines would not be triggered as a result of the Project. Therefore, the Project has been reviewed in compliance with CEQA.

ACTIONS FOLLOWING APPROVAL
If approved, the Project will continue with a Site Plan Review and staff will file a Notice of Exemption with the County Clerk.

CONFLICT OF INTEREST
None.

NOTICE OF HEARING
property owners within 300 feet of the Project were notified: 48

Prepared by: Marissa Parker, Assistant Planner

Reviewed by: Interim Deputy City Planner, Lily Cha-Haydostian

RESOLUTION 25-___

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS ADOPTING A CLASS 32 EXEMPTION AND APPROVING CONDITIONAL USE PERMIT 1995-009A4 FOR THE ADDITION OF A NEW, TWO-STORY, CLASSROOM BUILDING AND BASKETBALL COURT, AND AN INCREASE IN STUDENT CAPACITY FOR THE VALLEY CRESCENT SCHOOL

WHEREAS, Michael Eastman (Applicant and Representative), 10648 N. Highway 41, Madera, CA, 93636, applied for Conditional Use Permit 1995-009A4 for the addition of a new, two-story, classroom building and basketball court, and for the increase in student capacity for the Valley Crescent School located at 547 W. Nees Avenue, in the City of Clovis ("Project"); and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on Wednesday, January 8, 2025, mailed public notices to property owners within 300 feet of the Project site more than ten (10) days prior to the Planning Commission hearing, and otherwise posted notice of the public hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on January 23, 2025; and

WHEREAS, the Planning Commission considered the California Environmental Quality Act ("CEQA") analysis outlined in the staff report and elsewhere in the Administrative Record which determined the Project meets the requirements of CEQA Guidelines section 15332 (Class 32 – In-Fill Development Projects), subdivision (b),and does not trigger any of the exceptions identified under CEQA Guidelines section 15300.2; and

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

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

1. The Planning Commission finds that the Project is categorically exempt from further environmental review under CEQA and hereby adopts a Class 32 (In-Fill Development Projects) categorical exemption pursuant to CEQA Guidelines section 15332 .

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

    a. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of the City's Development Code.

    b. The proposed use is consistent with the General Plan and any applicable specific plan.

c. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.

d. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.

e. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.

f. The proposed Project has been reviewed in compliance with the provisions of the CEQA.

3. The Planning Commission could not make the findings necessary for approval of CUP1995-009A4 without the conditions of approval set forth in **Attachment A** to this Resolution.

4. The bases for the findings are detailed in the January 23, 2025, staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

5. CUP1995-009A4 is hereby approved with incorporation of the conditions of approval (**Attachment A** to this Resolution).

* * * * * *

The foregoing resolution was adopted by the Clovis Planning Commission at its regular meeting on January 23, 2025, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 25-___
DATED: January 23, 2025

_____
Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

Attachment A:
CONDITIONS OF APPROVAL
CUP1995-009A4

PLANNING DIVISION CONDITIONS
(Marissa Parker, Division Representative – (559) 324-2338)

1. This conditional use permit amendment approval allows for the construction of a new, two-story, ±12,500 square foot classroom building, a basketball court, and the increase in student capacity from 174 to 414 for the Valley Crescent School located at 547 West Nees Avenue.

2. This conditional use permit amendment is not transferable to another location.

3. This conditional use permit amendment does not permit or otherwise allow for the operation of the site and/or uses other than explicitly described in the accompanying staff report.

4. A separate site plan review (SPR) and approval shall be required prior to the construction of any structures and/or prior to any site modifications and shall comply with development standards prescribed for the Low-Density Residential land use designation, R-1-7500 (Single-Family Residential) zone district, conditions of CUP1995-009A4, and other applicable standards as determined by the Planning Division during the SPR review process.

5. The proposed two-story building shall be architecturally harmonious with the existing classroom building subject to approval during the Site Plan Review.

6. Building height for the proposed classroom building shall be no higher than 35 feet as prescribed by the R-1-7500 Zone District.

7. The required development standards for the proposed classroom building are derived from the R-1-7500 Zone District:
    a. Front: 20 feet
    b. Side (interior): 10 feet
    c. Rear: 20 feet
    d. Maximum Height: 35 feet
    e. Maximum Lot Coverage: 40%

8. The proposed classroom building shall be located no less than 160 feet from the rear property line, 27.5 feet from the west property line, and 54 feet from the east property line.

9. The following parking ratio is required pursuant to Chapter 9.32.040 (Table 3-12; classified as “schools (public/private)”) of the CMC:1 space for each faculty/employee member
    - Proposed number of staff: 26 (maximum)
    - Existing parking stalls: 31

10. No parking related to this use or drop off or pick up of students shall occur on Sylmar Avenue.

11. The hours of operation for the school shall not exceed 7:00 a.m. to 5:00 p.m., Monday through Friday and between the hours of 9:00 a.m. and 1:00 p.m. on Saturday and Sunday. Special events, such as conferences, assemblies, organized team sport events, or programs outside of these hours are permissible on an occasional basis.

12. The private school shall be limited to a maximum enrollment of 414 students.

13. The applicant shall operate in a manner that complies with the Clovis Municipal Code so that it does not generate noise, odor, or vibration that adversely affects any adjacent properties.

14. Any exterior music and/or outdoor speaker systems shall conform with the City's noise standards.

15. The applicant shall consult with the City of Clovis Building Division on any building code requirements. All conditions of this conditional use permit shall be addressed prior to operation of the facility.

16. Any future request to expand the use shall be subject to an amendment to CUP1995-009A4.

17. Applicant must have on file a current City of Clovis Business License prior to conducting business.

18. CUP1995-009A4 may be reviewed at any time for compliance with the conditions of approval. Clovis Planning staff may conduct a review of the use in regard to conditions of approval and may present findings of this review to the Planning Commission.

POLICE DEPARTMENT COMMENTS
(Michael Sweeten, Police Department Representative – (559) 324-3494)

19. Surveillance cameras shall be installed to cover the main entry/exit of the structure. Footage shall be retained for a minimum of 30 days. Video shall be made available to the Clovis Police department upon request pursuant to a criminal investigation.

20. The sidewalks and parking lots shall be reasonably illuminated to enhance public safety and deter criminal activity. The lighting shall be shielded in a manner to that it does not create a nuisance for neighboring properties.

21. The property must be maintained and cared for in a manner that increases public safety and follows the Clovis Municipal Code and all other applicable City codes. All lighting, gates and fences shall be maintained and in working order, and landscaping shall be kept clean and free of debris and other hazards.

22. The name and telephone number of a 24-hour emergency contact person(s) shall be provided to Clovis PD and shall be updated regularly.

23. The site owner shall maintain all structures and adjoining fences/walls and keep them free of graffiti. All forms of graffiti shall be removed within 48 hours.

24. Signage in general shall comply with the City of Clovis sign ordinance in CMC chapter 9.34. This specifically does not allow for A-frame, I-frame, temporary banners, roof signs, neon, or flashing signs etc.

25. The applicant shall require compliance with all criminal and administrative state, county, and city laws by the applicant and their employees within the designated use and within 100 feet

of the use. The applicant shall make reasonable efforts to report to law enforcement known violations of criminal laws by patrons within the use and within 100 feet of the use.

COUNTY OF FRESNO HEALTH DEPARTMENT
(Kevin Tsuda, County of Fresno Health Representative – (559) 600-3271)

26. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the agency for the list of requirements.

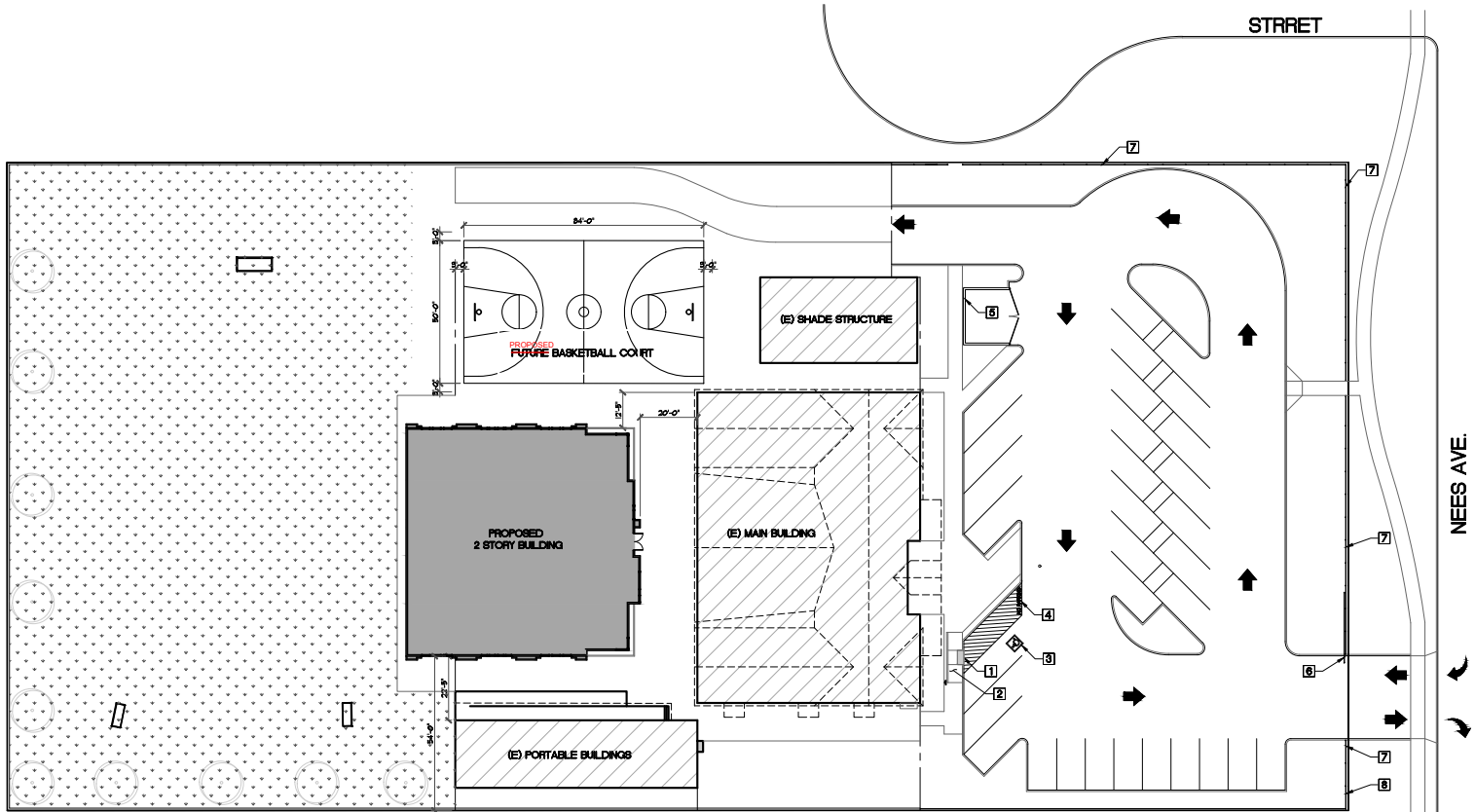
FRESNO IRRIGATION DISTRICT
(Chris Lundeen, FID Department Representative – (559) 233-7161)

27. The applicant shall refer to the attached Fresno Irrigation District correspondence. If the list is not attached, please contact the District for the list of requirements.

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
(Anthony Zaragoza, FMFCD Department Representative – (559) 456-3194)

28. The applicant shall refer to the attached Fresno Metropolitan Flood Control District correspondence. If the list is not attached, please contact the District for the list of requirements.

AGENDA ITEM NO. 2.



SITE PLAN 1

SCALE: 1" = 20'-0"

LEGEND

	PROPERTY LINE
	LOT LINE
	CENTER LINE
	SANITARY SEWER
	(P) CURB AND GUTTER
	CITY WATER
	(P) STREETLIGHT
	(P) SIDEWALK
	(P) PERMANENT PAVING

PARKING SUMMARY

STALL TYPE	QTY. PROVD.
STANDARD - 18'-0" X 9'-0"	80
ACCESSIBLE 18'-0" x 9'-0"	1
TOTAL	81

Keyed Notes

No.	Description
1	(N) TRUNCATED DOMES
2	(N) CONCRETE RAMP
3	(N) PAINTED PARKING SYSMBOL
4	(N) PAINT IN 12" HIGH LETTERS, "NO PARKING"
5	(N) TRASH ENCLOSURE PER CITY STANDARD
6	(N) 6' HIGH, ROLLING POWDER COATED GATE, TO REMAIN OPEN DURING SCHOOL HOURS.
7	(N) 6' HIGH, POWDER COATED FENCE
8	PROVIDE KNOX BOX AT GATE

Attachment 2

PLANS PREPARED FOR

547 W. NEES AVE.
CLOVIS, CA. 93611

PROPOSED PROJECT

NEW 2 STORY CLASSROOM BLDG.

FOR:
VALLEY CRESCENT SCHOOL

547 W. NEES AVE.
CLOVIS, CA. 93611

STATUS

ISSUE

PROJECT NO.:	2023-040
DRAWN BY:	M. BARTMAN
CHECKED BY:	M. BARTMAN
APPROVED BY:	N.SALEM
SCALE:	

ENGINEER OF RECORD

PLATINUM
Engineering Solutions, Inc.
Commercial · Industrial · Residential · Towers
10648 N. HWY 41
Madera, CA. 93638-9469
Tel: (559) 438-6500
Fax: (559) 433-6433
www.Platinumengineering.com

STAMP

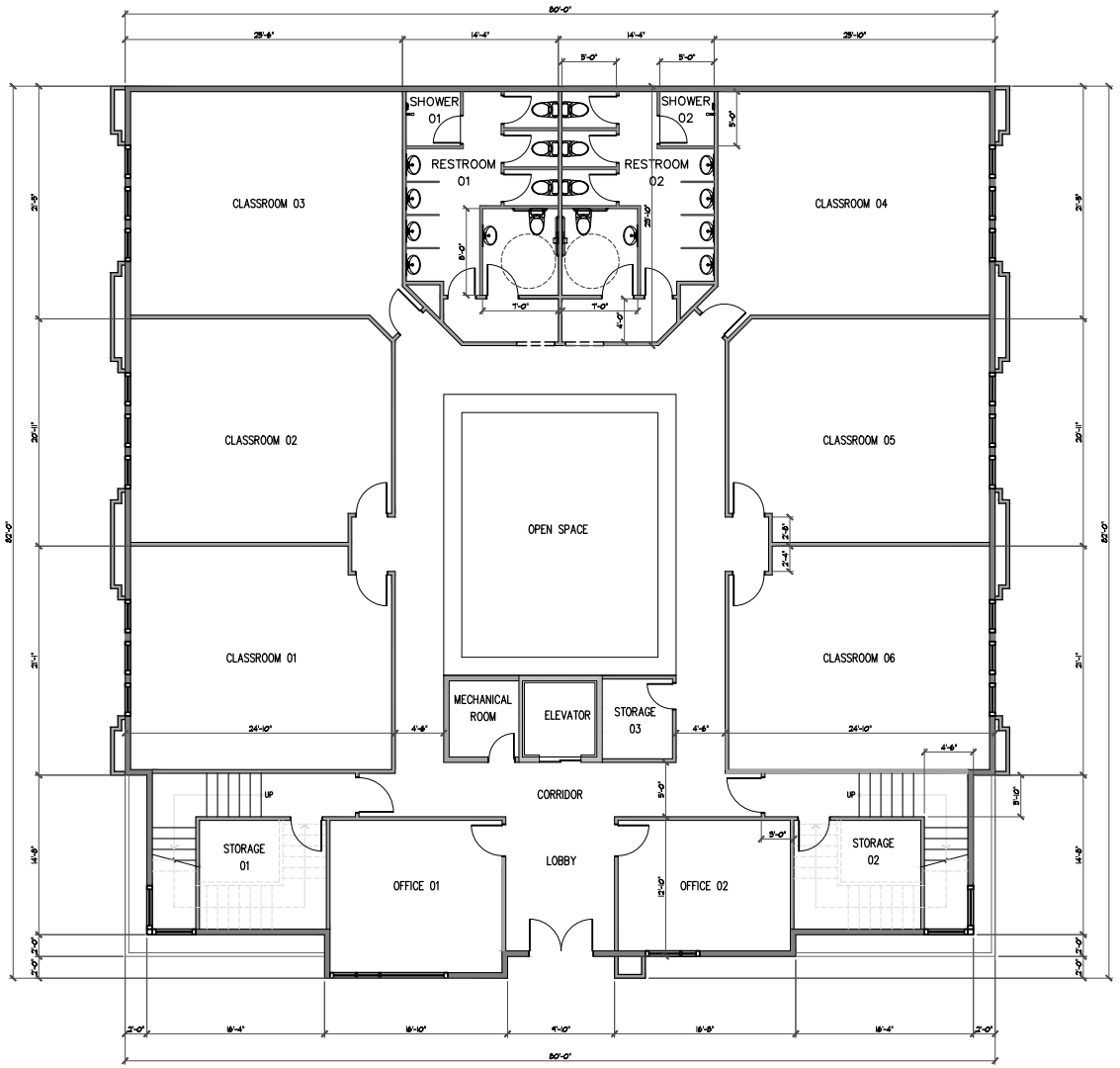
SHEET TITLE

SITE PLAN

SHEET

A1.1

AGENDA ITEM NO. 2.



1st FLOOR PLAN | 1

SCALE: 3/16" = 1'-0"

PLANS PREPARED FOR

547 W. NEES AVE.
CLOVIS, CA. 93611

PROPOSED PROJECT

NEW 2 STORY CLASSROOM BLDG.

FOR:
VALLEY CRESCENT SCHOOL

547 W. NEES AVE.
CLOVIS, CA. 93611

STATUS

ISSUE

PROJECT NO.:	2023-040
DRAWN BY:	M. BARTMAN
CHECKED BY:	M. BARTMAN
APPROVED BY:	N.SALIM
SCALE:	

ENGINEER OF RECORD

PLATINUM
Engineering Solutions, Inc.
Commercial · Industrial · Residential · Towers

10648 N. HWY 41
Madera, CA. 93638-9469
Tel: (559) 438-0500
Fax: (559) 433-6433
www.Platinumengineering.com

STAMP

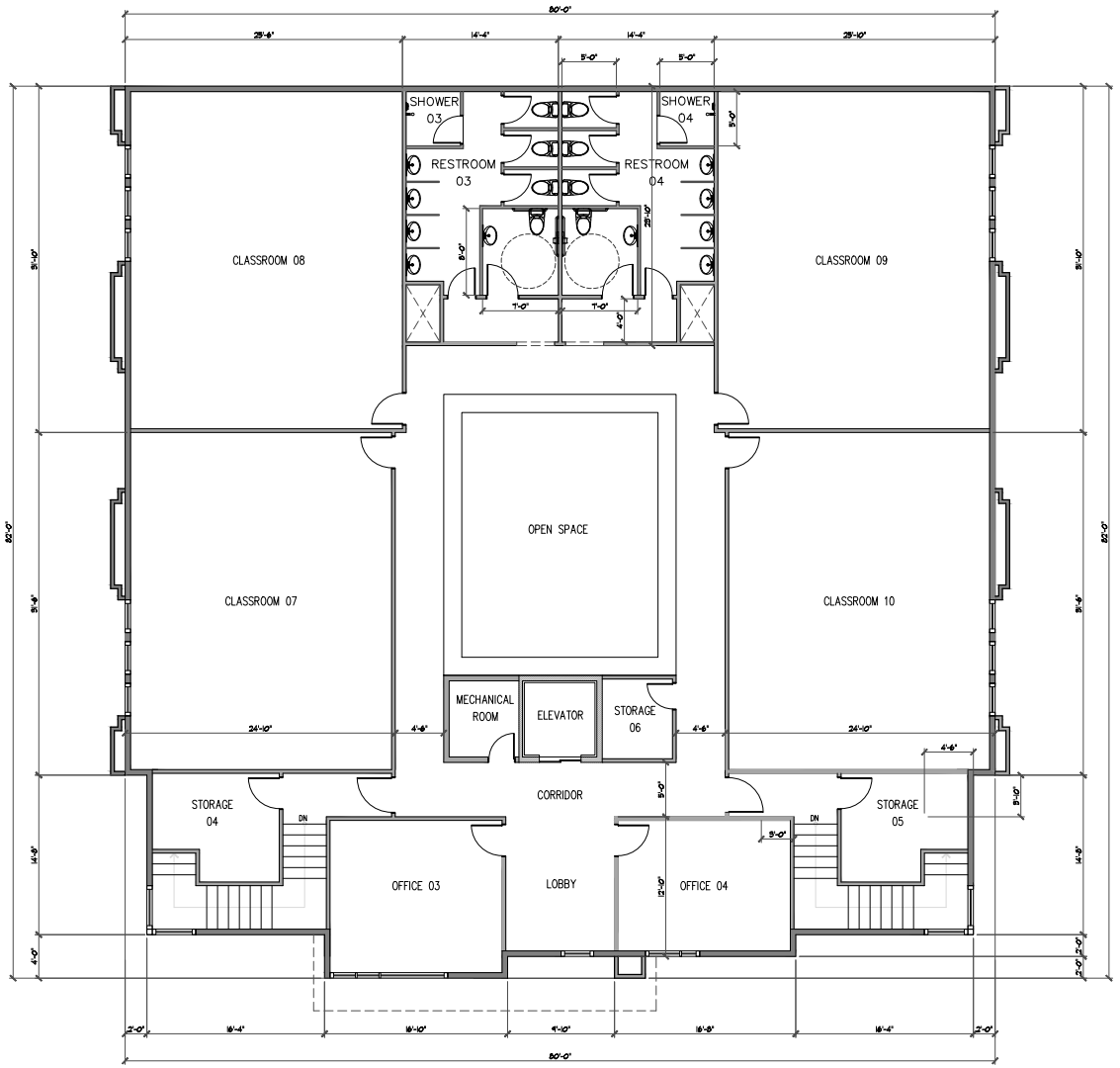
SHEET TITLE

1st FLOOR PLAN

SHEET

A2.1

AGENDA ITEM NO. 2.



2nd FLOOR PLAN | 1

SCALE: 3/16" = 1'-0"

PLANS PREPARED FOR

547 W. NEES AVE.
CLOVIS, CA. 93611

PROPOSED PROJECT

NEW 2 STORY CLASSROOM BLDG.

FOR:
VALLEY CRESCENT SCHOOL

547 W. NEES AVE.
CLOVIS, CA. 93611

STATUS

ISSUE

PROJECT NO.:	2023-040
DRAWN BY:	M. BARTMAN
CHECKED BY:	M. BARTMAN
APPROVED BY:	N.SALIBY
SCALE:	

ENGINEER OF RECORD

PLATINUM
Engineering Solutions, Inc.
Commercial · Industrial · Residential · Towers

10648 N. HWY 41
Madera, CA. 93638-9469
Tel: (559) 438-0500
Fax: (559) 433-6433
www.Platinumengineering.com

STAMP

SHEET TITLE

2nd FLOOR PLAN

SHEET

A2.2

OPERATIONAL STATEMENT

Date: 09-15-2023

City of Clovis
Planning and Development Department
1033 Fifth St.
Clovis, CA 93612

Project Name/Location:
Valley Crescent School
547 W Nees Ave, Clovis, CA 93611

Project Description:

New two-story classroom and office building. There will be 6 classrooms, 2 offices, 2 restrooms, 2 stairwells & elevator on the first floor and 4 classrooms, 2 offices, 2 restrooms, 2 stairwells & elevator on the 2nd floor. The hours of operation will be 7am-5pm Monday-Friday. The parking is existing to remain with upgrade to ADA Parking & construction of a new trash enclosure.

Sincerely [signature]

MOHAMMAD ASHRAFF NY

Valley Crescent School.

https://link.edgepilot.com/s/6a960bb1/DZXJEQNW00uICsUReMQbDg?u=http://www.platinumengineering.com/

Please consider the environment before printing this email.

From: R. Sammy Salem [mailto:Sammy@salem.net]
Sent: Friday, February 02, 2024 9:30 AM
To: Michael Eastman
Cc: NSALEM@PLATINUMENGINEERING.COM
Subject: RE: [External] RE: CUP1995-09A4 - 547 W. Nees Avenue

Good morning Michael,

Below is the response I got from the school:

> *"We do want a full capacity whatever number they allow.*
> *Currently we have 267 students. We have a waiting line for certain grades.*
> *If we build new classrooms, we expect to reach full capacity of 400 students including high school in seven years inshallah. Of course, this is a projection. Allah knows better. "*

I think he meant 167 students, not 267.

Answers to your questions,

1. Yes, we expect a total of 414 (174 + 240).
2. Time frame to reach full capacity is 7 years.

Thank You

Please do not hesitate to let me know if you have any questions or if there is anything further that I can assist you with at this time.
Respectfully,

R. Sammy Salem, MS, PE, GE, REA
Managing Principal Engineer

County of Fresno
DEPARTMENT OF PUBLIC HEALTH

June 29, 2023

LU0022263
2604

Lily Cha-Haydostian, Assistant Planner
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Cha-Haydostian:

PROJECT NUMBER: **DRC2023-022**

DRC2023-022; New 2-story classroom building for valley crescent school.

APN: 560-020-06 **ZONING: R-1-7500** **ADDRESS: 547 W. Nees Avenue**

Recommended Conditions of Approval:

- Facilities that use and/or store hazardous materials and/or hazardous wastes shall meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95, and the California Code of Regulations (CCR), Title 22, Division 4.5. Your proposed business will handle hazardous materials and/or hazardous waste and will be required to submit a Hazardous Materials Business Plan pursuant to the HSC, Division 20, Chapter 6.95 (http://cers.calepa.ca.gov/). Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

- The proposed project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to your City's municipal code.

- As a measure to protect ground water, all water wells and/or septic systems that exist or have been abandoned within the project area should be properly destroyed by an appropriately licensed contractor.

- Should any underground storage tank(s) be found during the project, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health Division. Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

AGENDA ITEM NO. 2.

REVIEWED BY:

Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II (559) 600-33271

cc: Damean Jackson- Environmental Health Division (CT. 57.02)
Mike Eastman- Applicant (meastman@platinumengineering.com)

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

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

January 5, 2024

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

RE: Site Plan Review 1995-019A3
N/E Nees and Willow avenues

Dear Ms. Jensen:

The Fresno Irrigation District (FID) has reviewed Site Plan Review 1995-019A3 for which the applicant proposes an amendment for the construction of a two-story classroom building, APN: 560-020-06. This application is being processed concurrently with CUP1995-009A4. FID has the following comment:

1. FID previously reviewed and commented on the subject property on June 30, 2023, as Development Review Committee Application No. 2023-022. Those comments and conditions still apply, and a copy has been attached for your reference.

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com.

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment

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

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

June 30, 2023

Lily Cha-Haydostian
Planning and Development Services Dept.
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Development Review Committee Application No. 2023-022
N/E Nees and Willow avenues

Dear Ms. Cha-Haydostian:

The Fresno Irrigation District (FID) has reviewed Development Review Committee Application No. 2023-022 for which the applicant proposes a classroom building for Valley Crescent School, APN: 560-020-06. FID has the following comment:

1. FID does not own, operate or maintain any facilities located on the subject property, as shown on the attached FID exhibit map.

2. For informational purposes, FID's Helm Colonial W. Br. No. 116 runs southerly along the west side of Peach Avenue and crosses Nees Avenue approximately 900 feet east of the subject property, as shown on the attached FID exhibit map. Should this project include any street and/or utility improvements along Peach Avenue, Nees Avenue, or in the vicinity of this pipeline, FID requires it review and approve all plans.

3. For informational purposes, FID's Maupin No. 118 runs southerly along the west side of Willow Avenue and crosses Nees Avenue approximately 1,700 feet west of the subject property, as shown on the attached FID exhibit map. Should this project include any street and/or utility improvements along Willow Avenue, Nees Avenue, or in the vicinity of this pipeline, FID requires it review and approve all plans.

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

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment

G:\Agencies\Clovis\DRC Meetings\DRC2023-022\DRC2023-022 FID Comment.doc

FRESNO IRRIGATION DISTRICT

Legend

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

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

Path: G:\Fidpis\20230223 FID Master.mxd
Spatial Reference
Name: NAD 1983 StatePlane California IV FIPS 0404

0 270 540
Feet
1 inch = 533.17 feet

AGENDA ITEM NO. 2.

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
NOTICE OF REQUIREMENTS

PUBLIC AGENCY

MARISSA JENSEN
DEPARTMENT OF PLANNING AND
DEVELOPMENT SERVICES
CITY OF CLOVIS
1033 FIFTH STREET
CLOVIS, CA 93612

DEVELOPER

MIKE EASTMAN, PLATINUM ENGINEERING
10648 N. HWY. 41
MADERA, CA 93636

PROJECT NO: **1995-009A4**

ADDRESS: **547 W. NEES AVE.**

APN: **560-020-06**

SENT: **January 29, 2024**

Drainage Area(s)	Preliminary Fee(s)	Development Review Service Charge(s)	Fee(s)	
CZ	$0.00	NOR Review *	$50.00	To be paid prior to release of District comments to Public Agency and Developer.
		Grading Plan Review *	$100.00	Amount to be submitted with first grading plan submittal.
	Total Drainage Fee: $0.00		**Total Service Charge: $150.00**	

* The Development Review Service Charge shown above is associated with CL SPR 1995-019A3 and is currently proposed to develop in conjunction with this permit. Payment for this entitlement shall satisfy the amount due on the associated permits.

The proposed development will generate storm runoff which produces potentially significant environmental impacts and which must be properly discharged and mitigated pursuant to the California Environmental Quality Act and the National Environmental Policy Act. The District in cooperation with the City and County has developed and adopted the Storm Drainage and Flood Control Master Plan. Compliance with and implementation of this Master Plan by this development project will satisfy the drainage related CEQA/NEPA impact of the project mitigation requirements.

Pursuant to the District's Development Review Fee Policy, the subject project shall pay review fees for issuance of this Notice of Requirements (NOR) and any plan submittals requiring the District's reviews. The NOR fee shall be paid to the District by Developer before the Notice of Requirement will be submitted to the City. The Grading Plan fee shall be paid upon first submittal. The Storm Drain Plan fee shall be paid prior to return/pick up of first submittal.

The proposed development shall pay drainage fees pursuant to the Drainage Fee Ordinance prior to issuance of a building permit at the rates in effect at the time of such issuance. The fee indicated above is valid through 2/29/24 based on the site plan submitted to the District on 12/13/23 Contact FMFCD for a revised fee in cases where changes are made in the proposed site plan which materially alter the proposed impervious area.

Considerations which may affect the fee obligation(s) or the timing or form of fee payment:

a.) Fees related to undeveloped or phased portions of the project may be deferrable.

b.) Fees may be calculated based on the actual percentage of runoff if different than that typical for the zone district under which the development is being undertaken and if permanent provisions are made to assure that the site remains in that configuration.

c.) Creditable storm drainage facilities may be constructed, or required to be constructed in lieu of paying fees.

d.) The actual cost incurred in constructing Creditable drainage system facilities is credited against the drainage fee obligation.

e.) When the actual costs incurred in constructing Creditable facilities exceeds the drainage fee obligation, reimbursement will be made for the excess costs from future fees collected by the District from other development.

f.) Any request for a drainage fee refund requires the entitlement cancellation and a written request addressed to the General Manager of the District within 60 days from payment of the fee. A non refundable $300 Administration fee or 5% of the refund whichever is less will be retained without fee credit.

CL CUP No. 1995-009A4

Approval of this development shall be conditioned upon compliance with these District Requirements.

1.

___ **a.** Drainage from the site shall

__X__ **b.** Grading and drainage patterns shall be as identified on Exhibit No. 1.

___ **c.** The grading and drainage patterns shown on the site plan conform to the adopted Storm Drainage and Flood Control Master Plan.

2. The proposed development shall construct and/or dedicate Storm Drainage and Flood Control Master Plan facilities located within the development or necessitated by any off-site improvements required by the approving agency:

___ Developer shall construct facilities as shown on Exhibit No. 1 as

__X__ None required.

3. The following final improvement plans and information shall be submitted to the District for review prior to final development approval:

__X__ Grading Plan

___ Street Plan

___ Storm Drain Plan

___ Water & Sewer Plan

___ Final Map

___ Drainage Report (to be submitted with tentative map)

___ Other

___ None Required

4. Availability of drainage facilities:

__X__ **a.** Permanent drainage service is available provided the developer can verify to the satisfaction of the City that runoff can be safely conveyed to the Master Plan inlet(s).

___ **b.** The construction of facilities required by Paragraph No. 2 hereof will provide permanent drainage service.

___ **c.** Permanent drainage service will not be available. The District recommends temporary facilities until permanent service is available.

___ **d.** See Exhibit No. 2.

5. The proposed development:

___ Appears to be located within a 100 year flood prone area as designated on the latest Flood Insurance Rate Maps available to the District, necessitating appropriate floodplain management action. (See attached Floodplain Policy.)

__X__ Does not appear to be located within a flood prone area.

6. ___ The subject site contains a portion of a canal or pipeline that is used to manage recharge, storm water, and/or flood flows. The existing capacity must be preserved as part of site development. Additionally, site development may not interfere with the ability to operate and maintain the canal or pipeline.

CL CUP No. 1995-009A4

CL CUP No. 1995-009A4

7. The Federal Clean Water Act and the State General Permits for Storm Water Discharges Associated with Construction and Industrial Activities (State General Permits) require developers of construction projects disturbing one or more acres, and discharges associated with industrial activity not otherwise exempt from National Pollutant Discharge Elimination System (NPDES) permitting, to implement controls to reduce pollutants, prohibit the discharge of waters other than storm water to the municipal storm drain system, and meet water quality standards. These requirements apply both to pollutants generated during construction, and to those which may be generated by operations at the development after construction.

a. State General Permit for Storm Water Discharges Associated with Construction Activities, effective July 1, 2010, as amended. A State General Construction Permit is required for all clearing, grading, and disturbances to the ground that result in soil disturbance of at least one acre (or less than one acre) if part of a larger common plan of development or sale). Permittees are required to: submit a Notice of Intent and Permit Registration Documents to be covered and must pay a permit fee to the State Water Resources Control Board (State Board), develop and implement a storm water pollution prevention plan, eliminate non-storm water discharges, conduct routine site inspections, train employees in permit compliance, and complete an annual certification of compliance.

b. State General Permit for Storm Water Discharges Associated with Industrial Activities, April, 2014 (available at the District Office). A State General Industrial Permit is required for specific types of industries described in the NPDES regulations or by Standard Industrial Classification (SIC) code. The following categories of industries are generally required to secure an industrial permit: manufacturing; trucking; recycling; and waste and hazardous waste management. Specific exemptions exist for manufacturing activities which occur entirely indoors. Permittees are required to: submit a Notice of Intent to be covered and must pay a permit fee to the State Water Resources Control Board, develop and implement a storm water pollution prevention plan, eliminate non-storm water discharges, conduct routine site inspections, train employees in permit compliance, sample storm water runoff and test it for pollutant indicators, and annually submit a report to the State Board.

c. The proposed development is encouraged to select and implement storm water quality controls recommended in the Fresno-Clovis Storm Water Quality Management Construction and Post-Construction Guidelines (available at the District Office) to meet the requirements of the State General Permits, eliminate the potential for non-storm water to enter the municipal storm drain system, and where possible minimize contact with materials which may contaminate storm water runoff.

8. A requirement of the District may be appealed by filing a written notice of appeal with the Secretary of the District within ten days of the date of this Notice of Requirements.

9. The District reserves the right to modify, reduce or add to these requirements, or revise fees, as necessary to accommodate changes made in the proposed development by the developer or requirements made by other agencies.

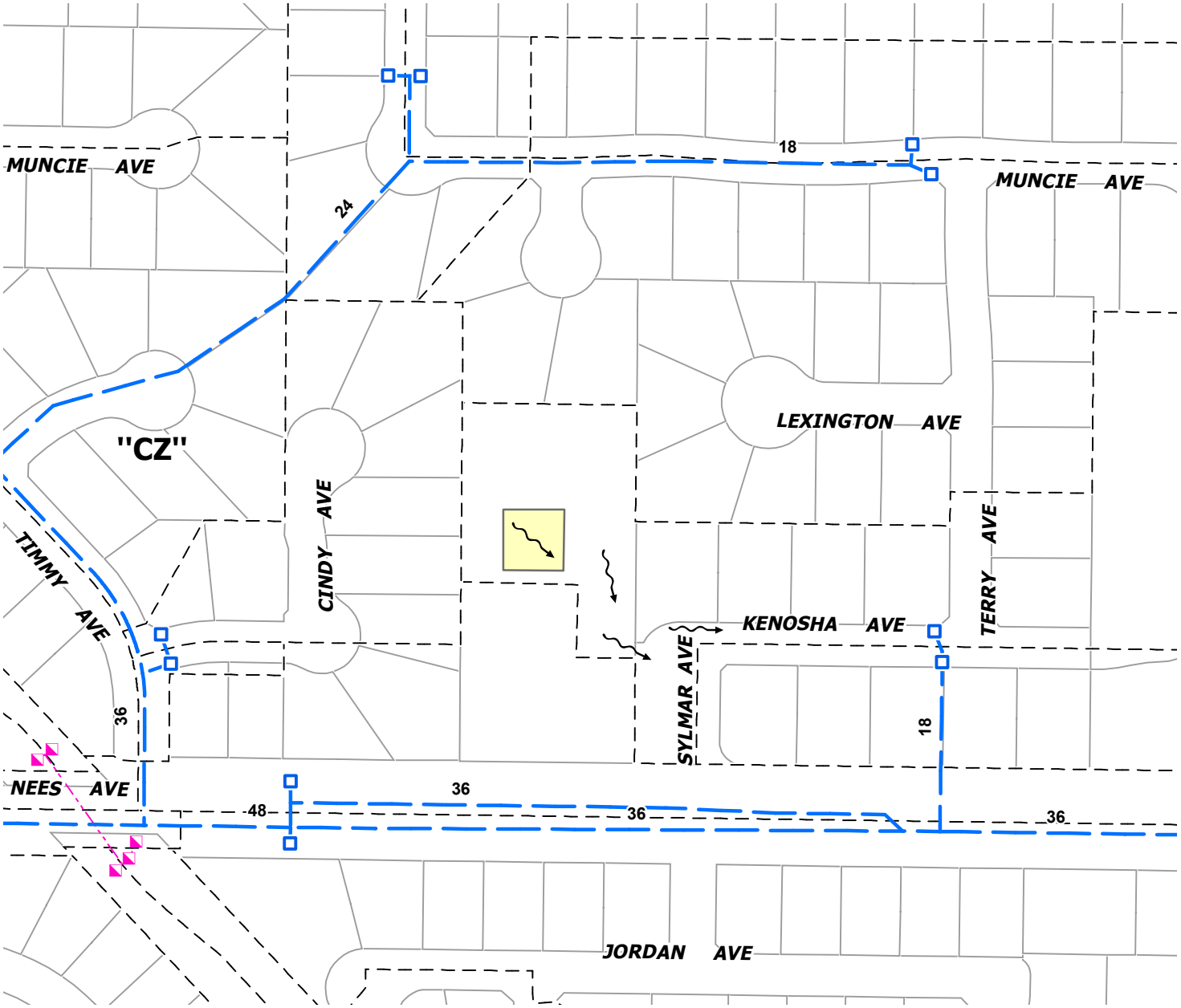
10. **X** See Exhibit No. 2 for additional comments, recommendations and requirements.

Debbie Campbell
Digitally signed by Debbie Campbell Date: 1/29/2024 11:30:56 AM
Debbie Campbell
Design Engineer, RCE

Anthony Zaragoza
Digitally signed by Anthony Zaragoza Date: 1/23/2024 3:48:20 PM
Anthony Zaragoza
Engineer III

NOTE: THIS [illegible]
DISTANCES, AM[illegible]
FACILITIES, AN[illegible]
BOUNDARIES ARE APPROXIMATE.

AGENDA ITEM NO. 2.



LEGEND

- Existing Master Plan Facilities
- Existing Private Facilities
- Direction Of Drainage
- Inlet Boundary
- Limits Of CL CUP 1995-009A4

1 " = 200 '

CL CUP 1995-009A4

DRAINAGE AREA "CZ"

EXHIBIT NO. 1

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

Prepared by: coreym
Date: 12/13/2023
Path: K:\Autocad\DWGS\0EXHIBIT\CLCUP\1995-009A4.mxd

OTHER REQUIREMENTS

EXHIBIT NO. 2

The minimum finish floor elevation shall be 363.52 (U.S.G.S. Datum).

In an effort to improve storm runoff quality, outdoor storage areas shall be constructed and maintained such that material that may generate contaminants will be prevented from contact with rainfall and runoff and thereby prevent the conveyance of contaminants in runoff into the storm drain system.

The District encourages, but does not require that roof drains from non-residential development be constructed such that they are directed onto and through a landscaped grassy swale area to filter out pollutants from roof runoff.

SALEM engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, California 93722
(559) 271-9700 Office
(559) 275-0827 Fax

April 4, 2024 **Job No. 1-424-0184**

Dr. Mohammad Asharf
Valley Crescent School
547 West Nees Avenue
Clovis, CA 93611

SUBJECT: **REVISED NOISE IMPACT STUDY**
Valley Crescent School – Building Addition
547 West Nees Avenue
Clovis, California

Dear Dr. Asharf:

A Noise Impact Study for the above-referenced project located at 547 West Nees Avenue in Clovis, (Fresno County Assessor Parcel Number [APN] 510-022-44) California (subject property) was conducted. An update to the Noise Impact Study to include a discussion of exterior noise impacts associated with an increase of students to proposed full capacity was completed in April 2024. The proposed project involves the expansion of an education facility with a two-story classroom.

The Noise Impact Study is an analysis of the proposed project's potential noise impacts associated with the construction of the project, as well as long-term noise impacts associated with the operation of the proposed project. The Noise Study was prepared utilizing the City of Clovis Noise Guidelines, and City of Clovis Environmental Safety Element and Municipal Code.

Please refer to Section 7.0 Future Noise Environmental Impacts and Mitigation, and Section 8.0 Construction Noise Impacts for detailed information pertaining to the proposed project temporary construction noise impacts, as well as long-term operational noise impacts. However, based on the noise impact analysis, impacts associated with off-site traffic noise, on-site traffic noise, off-site receptors from stationary noise sources, and construction noise and vibration are not significant (provided the construction noise policies are implemented, see Section 8.3).

We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (909) 980-6455.

Respectfully submitted,

SALEM Engineering Group, Inc.

Maria G. Ruvalcaba, EP
Project Manager

Valley Crescent School
Noise Impact Study
City of Clovis, CA

Prepared for:

Ms. Maria Ruvalcaba
SALEM Engineering Group, Inc.
4729 W. Jacquelyn Avenue
Fresno, CA 93722

Prepared by:

MD Acoustics, LLC
Claire Pincock, INCE-USA
Rachel Edelman
1197 Los Angeles Ave, Ste C-256
Simi Valley, CA 93065

Date: 1/8/2025

MD ACOUSTICS
Sound Solutions for Planning and Design

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LIST OF APPENDICES

LIST OF EXHIBITS

LIST OF TABLES

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the project study area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set-forth by the Federal, State and Local agencies. Consistent with the City's Noise Guidelines, the project must demonstrate compliance to the applicable noise criterion as outlined within the City of Clovis Environmental Safety Element and Municipal Code.

The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- A description of the local noise guidelines and standards;
- An analysis of traffic noise impacts to the sensitive receptors and the project site; and
- An analysis of construction noise impacts.

1.2 Site Location and Study Area

The Valley Crescent School Project site is located at 547 W Nees Avenue in the City of Clovis, CA (APN:510-022-44). See Exhibit A for the location. Land uses directly surrounding the Project site include residential to the north, south, east, and west. W Nees Avenue is to the south.

1.3 Proposed Project Description

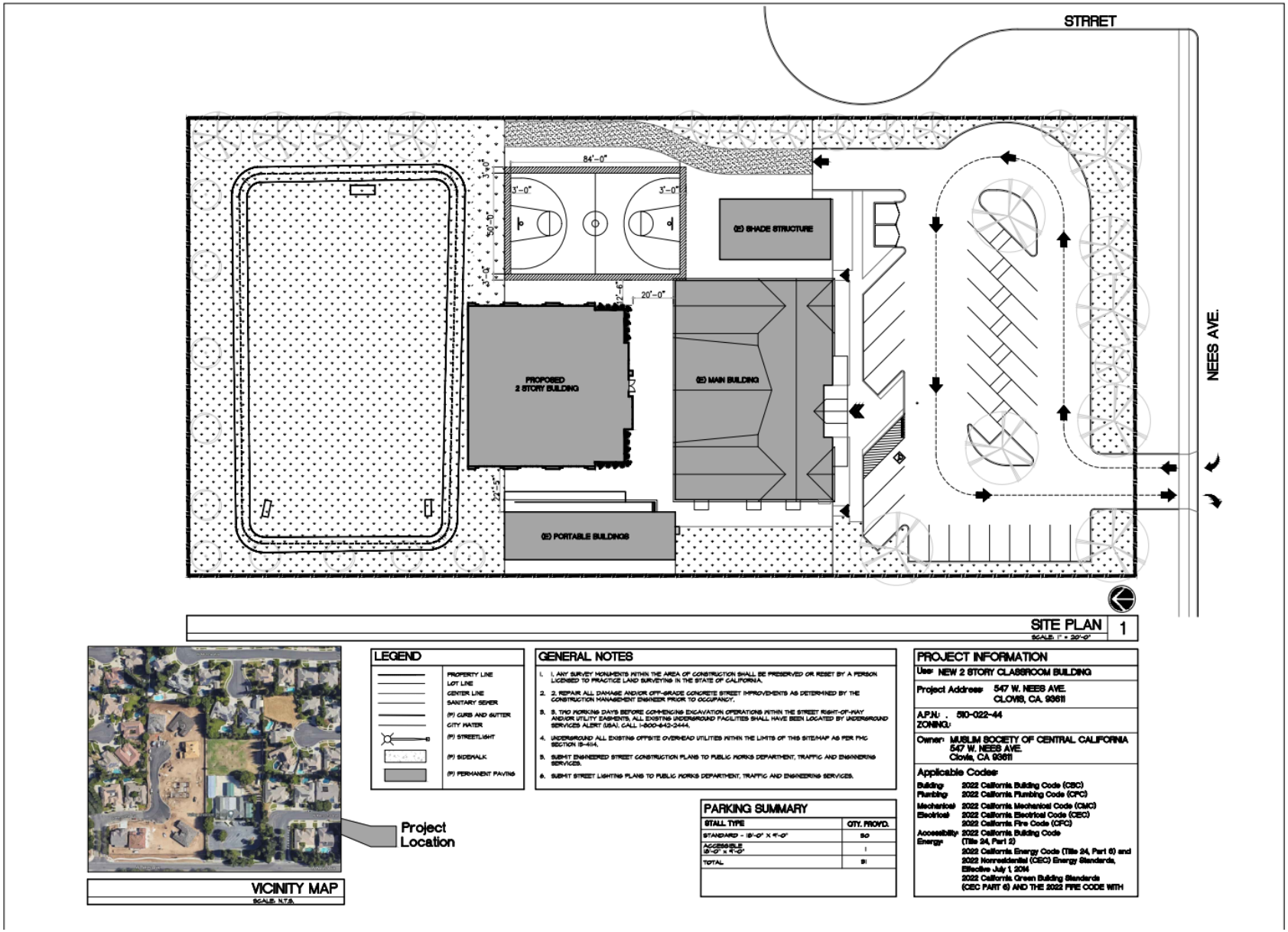
The proposed Project consists of the construction and operation of a new 2-story classroom. The Project currently consists of a main building, a portable building, two (2) shade structures, a basketball court, and 31 parking spaces. The proposed building would be located north of the main building in place of the basketball court and one of the shade structures, and a basketball court will be located east of the proposed building. The site plan is shown in Exhibit B.

Exhibit A

Location Map

Exhibit B

Site Plan



2.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

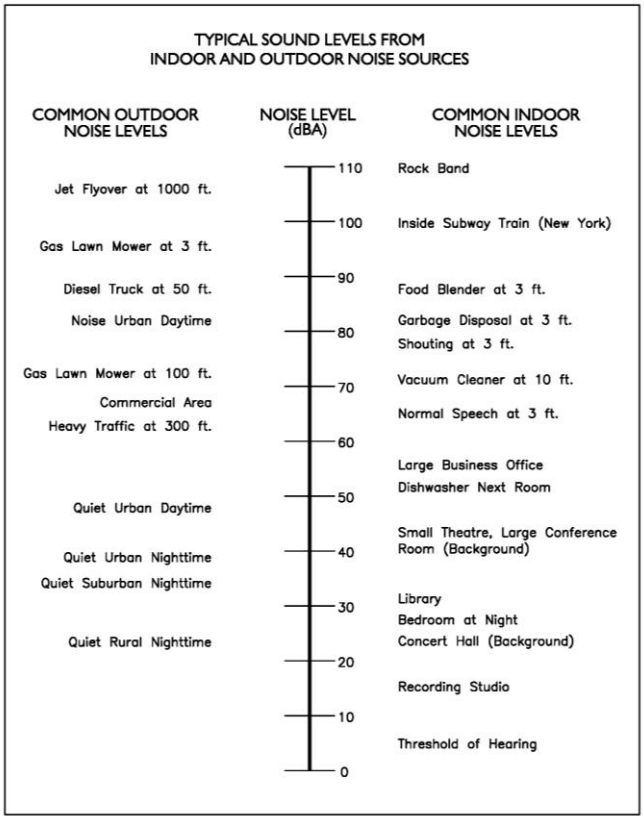
2.1 Sound, Noise and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

Exhibit C: Typical A-Weighted Noise Levels



2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines it loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measure in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB. Exhibit C illustrates references sound levels for different noise sources.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

2.5 Sensitive Receptors

Noise-sensitive land uses include residential (single and multi-family dwellings, mobile home parks, dormitories, and similar uses); transient lodging (including hotels, motels, and similar uses); hospitals, nursing homes, convalescent hospitals, and other facilities for long-term medical care; public or private educational facilities, libraries, churches, and places of public assembly.

2.6 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Table 1: Decibel Changes and Loudness

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud
Source: https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm	

2.7 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00

PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

2.8 Traffic Noise Prediction

Noise levels associated with traffic depends on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2 axle) and heavy truck percentage (3 axle and greater), and sound propagation. The greater the volume of traffic, higher speeds and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately 3 dB; reasons for this are discussed in the sections above.

2.9 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact have far sound can travel.

3.0 Ground-Bourne Vibration Fundamentals

3.1 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude

VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation. As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 Regulatory Setting

The proposed project is located in the City of Clovis and noise regulations are addressed through the efforts of various federal, state and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible to regulate noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible to regulate noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being constructed adjacent to a highway or, or alternatively that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement Codes and land use planning.

4.2 State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix.” The matrix allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 and the Uniform Building Code (UBC) which in some cases requires acoustical analyses to outline exterior noise levels and to ensure interior noise levels do not exceed the interior threshold. The State mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan.

The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

4.3 City of Clovis Noise Regulations

The City of Clovis outlines their noise regulations and standards within the Environmental Safety Element from the General Plan and the Noise Ordinance from the Municipal Code.

City of Clovis General Plan

Applicable policies and standards governing environmental noise in the City of Clovis are set forth in the General Plan Environmental Safety Element. The land use compatibility guidelines are shown in Exhibit D, and the interior and exterior noise standards are shown in Exhibit E.

Exhibit D: Land Use Compatibility Guidelines

Table ES-2. Land Use and Noise Compatibility Matrix

LAND USES	ENERGY AVERAGE (CNEL)						
Example Land Uses	**<**	**55**	**60**	**65**	**70**	**75**	**80>**
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Notes:

Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

Exhibit E: Interior and Exterior Noise Standards (CNEL)

Table ES-1. Interior and Exterior Noise Standards Energy Average (CNEL)

LAND USE CATEGORIES		ENERGY AVERAGE (CNEL)	
Primary Land Uses	**Additional Uses Allowed**	**Interior[1]**	**Exterior[2]**
Residential	Single Family, Multifamily	45[3] /55[4]	65[7]
	Mobile Home	—	65[5]
Commercial/ Industrial	Hotel, motel, transient lodging	45	65[6]
	Commercial, retail, bank, restaurant	55	—
	Office building, professional office, research & development	50	—
	Gymnasium (Multipurpose)	50	—
	Health clubs	55	—
	Manufacturing, warehousing, wholesale, utilities	65	—
Institutional	Hospital, school classroom	45	65
	Church, library	45	—
Open Space	Parks	—	65

Notes:
1. Interior environment excludes bathrooms, toilets, closets, and corridors.
2. Outdoor environment limited to private yard of single family or multifamily residences private patio which is accessed by a means of exit from inside the unit; mobile home park; hospital patio; park picnic area; school playground; and hotel and motel recreation area.
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of UBC.
4. Noise level requirement with open windows, if they are used to meet natural ventilation requirement.
5. Multi-family developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.
6. Exterior noise level shall be such that interior noise level will not exceed 45 CNEL.
7. Except those areas affected by aircraft noise.

In addition to the noise standards, the City has outlined goals and policies to reduce potential noise impacts and are presented below:

Goals and Policies

The City utilizes the following General Plan Environmental Safety Element goals and policies to assess evaluate the project's suitability in light of noise impacts.

Goal 3 An environment in which minimized noise contributes to the public's health, safety, and welfare.

Policy 3.1 **Land use compatibility.** Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the Noise Level Exposure (Exhibit E) and Land Use Compatibility Matrix (Exhibit D) and the city's noise ordinance.

Policy 3.2 **Land use and traffic patterns.** Discourage land use and traffic patterns that would expose sensitive land uses or noise-sensitive areas to unacceptable noise levels.

Policy 3.4 **Acoustical study.** Require an acoustical study for proposed projects that have the potential to exceed acceptable noise thresholds or are exposed to existing or future noise levels in excess of the thresholds in the city's noise ordinance.

Policy 3.5 **Site and building design.** Minimize noise impacts by requiring appropriate site, circulation, equipment, and building design, and sound walls, landscaping, and other buffers.

Policy 3.14 **Control sound at the source.** Prioritize using noise mitigation measures to control sound at the source before buffers, soundwalls, and other perimeter measures.

City of Clovis Municipal Code

Section 9.22.080 and Section 5.27.604 of the City's Municipal Code outlines the City's exterior noise limits as it relates to stationary noise sources.

9.22.080 Noise.

D. Noise Standards. The following noise standards, unless otherwise specifically indicated, shall apply to all property with a designated noise zone:

Table 2: Maximum Exterior Noise Standards

Noise Zone	Type of Land Use	Allowable Exterior Noise Level (15-Minute Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Single-, two-, or multiple-family residential	55 dBA	50 dBA
II	Commercial	65 dBA	60 dBA
III	Residential portions of mixed use properties	60 dBA	50 dBA
IV	Industrial or manufacturing	70 dBA	70 dBA

Table 3: Maximum Interior Noise Standards

Noise Zone	Type of Land Use	Allowable Interior Noise Level (15-Minute Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Residential	45 dBA	40 dBA
II	Administrative/professional office	50 dBA	-
III	Residential portions of mixed use properties	45 dBA	40 dBA

1. If the ambient noise level exceeds the resulting standard, the ambient shall be the standard.
2. It is unlawful for any person to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level

when measured on any property measured at the property line, to exceed either of the following within the incorporated area of the City:

a. The noise standard for the applicable zone for any fifteen (15) minute period;

b. A maximum impulsive noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response). Impulsive noise which repeats four (4) or more times in any hour between 10:00 p.m. and 7:00 a.m. shall be measured as continuous sound and meet the noise standard for the applicable zone.

3. When properties of two (2) different noise zones abut one another, the maximum exterior noise level shall be the lower of the two (2) noise zones where one zone is residential, and in other contexts shall be the average of the two (2) zones.

G. Acts deemed violations of section. The following acts are a violation of this section:

2. Construction noise. Construction activities shall be subject to the provisions of Section 5.27.604, which sets forth the permissible hours for construction activity. At all other times, no person shall operate, or cause to be operated, tools or equipment used in alteration, construction, demolition, drilling, or repair work so that the sound creates a noise disturbance across a residential property line, except for emergency work. Stationary equipment (e.g., generators) shall not be located adjacent to any existing residences unless enclosed in a noise attenuating structure, subject to the review and approval of the Director.

5.27.604 Construction activities.

Unless otherwise expressly provided by permit, construction activities are only permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday. Extended construction work hours must at all times be in strict compliance with the permit.

5.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

5.1 Noise Measurement Procedure and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

MD conducted the sound level measurements in accordance to the Caltrans TeNS manual. All measurements equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). MD noise measurement procedures are presented below:

- Microphones for sound level meters were placed 5-feet above the ground for all measurements
- Sound level meters were calibrated (Larson Davis CAL 200) before and after each measurement
- Following the calibration of equipment, a wind screen was placed over the microphone
- Frequency weighting was set on “A” and slow response
- Results of the noise measurements were recorded on field data sheets
- During any short-term noise measurements any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

5.2 Noise Measurement Locations

Noise monitoring locations were selected to obtain a baseline of the existing noise environment. Three short-term noise measurements were conducted at or near the Project site. Appendix A includes photos, field sheet, and measured noise data. Exhibit F illustrates the measurement locations.

5.3 FHWA Traffic Noise Prediction Model

The FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) was utilized to model future traffic noise levels on the project site and existing and existing plus project traffic noise volumes along roadways affected by project generated vehicle traffic. The FHWA model arrives at the predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL).

Project generated vehicle traffic will result in an incremental increase in ambient noise levels. To determine the project’s noise impact to the surrounding land uses, MD generated noise contours for

existing ADT, and existing plus project conditions. Table 4 indicates the roadway parameters and vehicle distribution utilized for the modeling. Existing ADT data was taken from the City of Clovis. The project trip generation was provided by TJW Engineering. Noise contours are used to provide a characterization of sound levels experienced at a set distance from the centerline of a subject roadway. They are intended to represent a worst-case scenario and do not take into account structures, sound walls, topography, and/or other sound-attenuating features which may further reduce the actual noise level. Noise contours are developed for comparative purposes and are used to demonstrate potential increases/decreases along subject roadways as a result of a project. The referenced traffic data and traffic noise calculation worksheets outputs are located in Appendix B.

- Roadway classification – (e.g. freeway, major arterial, arterial, secondary, collector, etc.),
- Roadway Active Width – (distance between the center of the outermost travel lanes on each side of the roadway)
- Average Daily Traffic Volumes (ADT), Speeds, Percentages of autos, medium and heavy trucks
- Roadway grade and angle of view
- Site Conditions (e.g. soft vs. hard)
- Percentage of total ADT which flows each hour through-out a 24-hour period

Table 4: Roadway Parameters and Vehicle Distribution

Roadway	Existing ADT[1]	Existing + Project ADT[2]	Future[1] + Project ADT	Speed (MPH)	Site Conditions
W Nees Ave west of Peach Ave	16,244	16,728	23,672	45	Soft
Motor-Vehicle Type[3]	**Daytime % (7 AM to 7 PM)**	**Evening % (7 PM to 10 PM)**	**Night % (10 PM to 7 AM)**	**Total % of Traffic Flow**	
Automobiles	77.5	12.9	9.6	97.4	
Medium Trucks	84.8	4.9	10.3	1.8	
Heavy Trucks	86.5	2.7	10.8	0.8	

Notes:
[1] City of Clovis traffic counts.
[2] TJW Engineering .
[3] https://dot.ca.gov/programs/traffic-operations/census

5.4 FHWA Roadway Construction Noise Model

The construction noise analysis utilizes the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RNCM), together with several key construction parameters. Key inputs include distance to the sensitive receiver, equipment usage, % usage factor, and baseline parameters for the project site.

The project was analyzed based on the different construction phases. The construction noise calculation output worksheet is in Appendix C.

6.0 Existing Noise Environment

Three (3) 15-minute noise measurements were conducted at the project site in order to document the existing noise environment. The measurements include the Leq, Lmin, Lmax and other statistical data (e.g. L2, L8). 24-hour noise data was extrapolated from the 15-minute noise measurements using typical traffic patterns. The results of the noise measurements are presented in Table 5. Noise measurement field sheets are provided in Appendix A.

Table 5: Short-Term Noise Measurement Data (dBA)[1]

Location	Start Time	Stop Time	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)	L(90)	Estimated CNEL[2]
NM1	7:07 AM	7:22 AM	55.4	60.6	50.2	59.7	58.4	56.4	54.6	52.0	56.1
NM2	7:26 AM	7:41 AM	50.3	53.4	48.2	52.0	51.4	50.7	50.3	49.2	51.0
NM3	7:44 AM	7:59 AM	52.3	69.0	41.3	63.7	52.1	46.1	44.1	42.4	53.0

Notes:
[1.] Short-term noise monitoring locations are illustrated in Exhibit E.
[2.] CNEL estimated based off typical traffic patterns.

Noise data indicates the ambient noise level ranged from 50 to 55 dBA Leq at the surrounding uses. The exterior ambient noise level is estimated to be 53 to 56 dBA CNEL. Additional field notes are provided in Appendix A.

Exhibit F

X = Measurement location

Measurement Locations

7.0 Future Noise Environment Impacts and Mitigation

This assessment analyzes future noise impacts to sensitive receptors and to the project and compares the results to the City's Noise Standards. The analysis details the estimated exterior noise levels associated with traffic from adjacent roadway sources. The City has established different significance thresholds for different types of noise impacts.

7.1 Off-Site Traffic Noise Impact

A worst-case project-generated traffic noise level was modeled utilizing the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108. Traffic noise levels were calculated 50 feet from the centerline of the analyzed roadways. The modeling is theoretical and does not take into account any existing barriers, structures, and/or topographical features that may further reduce noise levels. Therefore, the levels are shown for comparative purposes only to show the difference in with and without project conditions. The potential off-site noise impacts caused by an increase of traffic from operation of the proposed project on the nearby roadways were calculated for the following scenarios:

- Existing Condition: This scenario refers to the existing traffic noise condition and is demonstrated in Table 6.
- Existing + Project Condition: This scenario refers to existing + project traffic noise condition and is demonstrated in Table 6.

Table 6 compares the without and with project scenario and shows the change in traffic noise levels as a result of the proposed project. It takes a change of 3 dB or more to hear a perceptible difference. The change in traffic noise level due to the project will be 0.1 dB, and the impact is less than significant.

Table 6: Change in Existing Noise Levels as a Result of Project Generated Traffic

Roadway[1]	Segment	Noise Levels (dBA CNEL) at 50 Feet[2]			
		Existing without Project	Existing with Project	Change in Noise Level	Potential Significant Impact
W Nees Ave	West of Peach Ave	69.8	69.9	0.1	No

Notes:
[1] Exterior noise levels calculated at 5 feet above ground level.
[2] Noise levels calculated from centerline of subject roadway..

7.2 On-Site Traffic Noise Impact

Traffic noise from West Nees Avenue was evaluated and compared to the City's guidelines. As a worst-case, the Future (2035) traffic counts from the City of Clovis were utilized. Per the Environmental Safety Element of the General Plan, school and faith/religious uses are normally compatible up to 65 dBA CNEL. Using cumulative Future + Project traffic, the edge of the project site will be up to 65 dBA CNEL. The project will thus fall within the normally compatible range.

7.3 Noise Impacts to Off-Site Receptors Due to Stationary Noise Sources

Sensitive receptors that may be affected by project operational noise include adjacent residences to the north, east, and west.

On-site operational noise includes HVAC units and a basketball court. HVAC equipment is assumed to be located on the rooftop. Equipment will be at least 80 feet away from the nearest residences to the west. The maximum sound power level from a single unit is 78 dBA. At 80 feet away, the sound pressure level is estimated to be 39 dBA. Assuming there are 7 total units running simultaneously 80 feet away from the west residences, the sound level is 48 dBA Leq. If the units ran simultaneously for 24 hours, the noise level would be 54 dBA CNEL. This does not take into account the property line wall, which would lower the operational noise at the residential receptors. According to the City's exterior noise standards in the Municipal Code (Table 2 of this report), Leq noise levels must not exceed 50 dBA Leq during nighttime hours or 55 dBA Leq during daytime hours. According to the City's Land Use Compatibility Guidelines & Exterior Standards (Exhibits D and E of this report), the noise at residential properties must not exceed 65 dBA CNEL. The worst-case noise due to the HVAC units operating simultaneously will be 48 dBA Leq and 54 dBA CNEL, and thus meets the City's noise level limits for residential properties.

The project includes moving the basketball court to the east of the site. A 2-hoop basketball court has a sound power level of 90 dBA Leq (VDI 3770, "Emissionskennwerte von Schallquellen - Sport und Freizeitanlagen", September 2012). Projected at the center of the site to the adjacent residential properties, the sound pressure level at the adjacent residential properties would be 54 dBA Leq. Assuming the basketball court is continuously in use for 3 daytime hours, the noise level would be 45 dBA CNEL at the residential properties. The project thus meets the noise level limits of 55 dBA Leq and 65 dBA CNEL.

The combined project hourly noise level (HVAC and basketball court noise) is anticipated to be 48 dBA Leq during nighttime hours and 55 dBA Leq during daytime hours. The hourly noise level thus meets the City's exterior noise standards for residential uses of 50 dBA during nighttime hours and 55 dBA during daytime hours. The combined project 24-hour noise level is anticipated to be 55 dBA CNEL and is well below the 65 dBA CNEL limit for residential uses.

Existing noise sources such as the ball fields, recess, and outdoor activites or events are not ancticpate to move due to this project. Enrollemnt is anticipated to go from 167 to 414 students. This increase would have an increase of up to 3.0 dB for the existing noise-producing activities, resulting in a combined project level of 58.5 dBA CNEL. At adjacent uses, project plus ambient levels will not exceed 61.5 dBA CNEL for a maximum of +4.5 dBA CNEL change in noise level. This is below the 65 CNEL limit for residential uses.

Operational noise complies with the Clovis General Plan Environmental Safety Element and Municipal Code. The impact is, therefore, less than significant.

8.0 Construction Noise and Vibration Impacts

The degree of construction noise may vary for different areas of the project site and also vary depending on the construction activities. Noise levels associated with the construction will vary with the different phases of construction. The construction noise and vibration level projections are provided in the sections below.

8.1 Construction Noise

Typical construction equipment noise levels are presented in Table 7.

Table 7: Typical Construction Equipment Noise Levels[1]

EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 – 86

IMPACT EQUIPMENT

Type	Noise Levels (dBA) at 50 Feet
Saws	71 - 82
Vibrators	68 - 82

Notes:
[1] Referenced Noise Levels from the Environmental Protection Agency (EPA)

Construction is anticipated to occur during the permissible hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday, according to the City's Municipal Code Section 5.27.604. Construction noise will have a temporary or periodic increase in the

ambient noise level above the existing within the project vicinity. Furthermore, noise reduction measures are provided to reduce construction noise. Construction noise level projections are provided below.

CalEEMod methodology was utilized to determine the construction equipment. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels are in Table 8. A likely worst-case construction noise scenario assumes equipment operating as close as 15 feet and an average of 115 feet from the nearest sensitive receptor (center of the site to the closest homes to the east).

Table 8: Construction Noise Level by Phase (dBA, Leq)

Activity	Noise Levels at Nearest Sensitive Receptor	
	Leq	Lmax
Site Preparation	74	99
Grading	76	99
Building Construction	74	98
Paving	71	98
Architectural Coating	64	92
Notes: Construction Modeling Worksheets are provided in Appendix C.		

As shown in Table 8, project construction noise will range between 66 to 78 dBA Leq and 86 to 98 dBA Lmax at the nearest sensitive receptor (without the implementation of mufflers and other sound attenuating devices). Section 8.3 of this report provides policies to reduce the construction noise levels. The impact is less than significant with the implementation of the policies given in Section 8.3.

8.2 Construction Vibration

Construction activities can produce vibration that may be felt by adjacent land uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary vibration source during construction may be from a vibratory roller. A vibratory has a vibration impact of 0.210 inches per second peak particle velocity (PPV) at 25 feet which is perceptible but below any risk to architectural damage.

The fundamental equation used to calculate vibration propagation through average soil conditions and distance is as follows:

$$PPV_{equipment} = PPV_{ref} (100/D_{rec})^{n}$$

Where: PPV_{ref} = reference PPV at 100ft.
D_{rec} = distance from equipment to receiver in ft.
n = 1.1 (the value related to the attenuation rate through ground)

The thresholds from the Caltrans Transportation and Construction Induced Vibration Guidance Manual in Table 9 (below) provides general thresholds and guidelines as to the vibration damage potential from vibratory impacts.

Table 9: Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Table 19, Transportation and Construction Vibration Guidance Manual, Caltrans, Sept. 2013.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 10 gives approximate vibration levels for particular construction activities. This data provides a reasonable estimate for a wide range of soil conditions.

Table 10: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2018.

The nearest existing building is 20 feet east of the project site. At this distance, a vibratory roller would yield a worst-case 0.268 PPV (in/sec) which may be perceptible but will not result in architectural

damage. The impact is not significant with the implementation of the mitigation measures in Section 8.3. The ground-borne vibration worksheet is provided in Appendix C.

8.3 Construction Noise Reduction Policies

Construction operations must follow the City's Noise Ordinance, which states that construction, repair or excavation work performed must occur within the permissible hours. To ensure that construction activities do not disrupt the adjacent land uses, the following measures will be taken:

1. Construction will occur during the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday.

2. During construction, the contractor will ensure all construction equipment is equipped with appropriate noise attenuating devices. Equipment with a sound power level of 80 dB or higher must be equipped with mufflers.

3. The contractor will locate equipment staging areas as far as possible, away from the sensitive receptors. Stationary equipment (e.g., generators) will not be located adjacent to any existing residences unless enclosed in a noise attenuating structure, according to Section 9.22.080(G)(2) of the Municipal Code.

4. Idling equipment will be turned off when not in use.

5. Equipment will be maintained so that vehicles and their loads are secured from rattling and banging.

9.0 References

City of Clovis
2014 General Plan
2014 Municipal Code

California Department of Transportation (Caltrans)
2013 Transportation and Construction Induced Vibration Guidance Manual.
2018 Technical Noise Supplement to the Traffic Noise Analysis Protocol. Sept.

Federal Highway Administration (FHWA)
2010 Highway Traffic Noise Analysis and Abatement Policy and Guidance.
https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

Federal Transit Administration (FTA)
2018 Transit Noise and Vibration Impact Assessment Manual

Governor's Office of Planning and Research
State of California General Plan Guidelines, 1998

TJW Engineering, Inc.
547 West Nees Avenue Traffic Impact Analysis

Appendix A:

Field Measurement Data

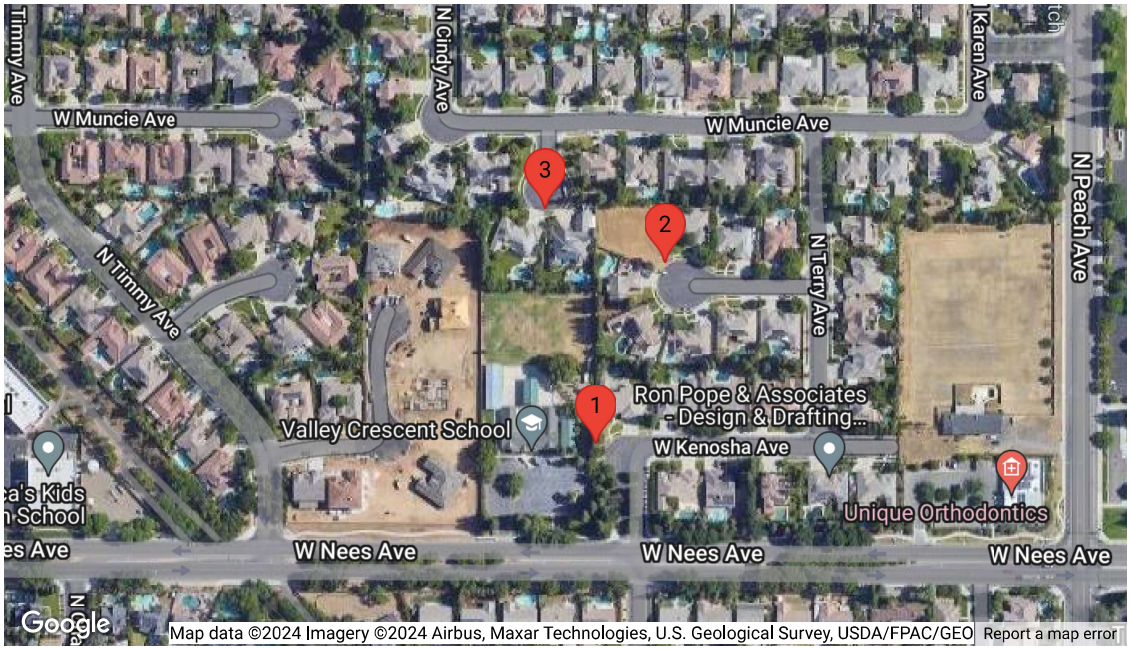
15-Minute Continuous Noise Measurement Datasheet

Project Name:	Valley Crescent Noise
Project: #/Name:	1098-2024-004
Site Address/Location:	547 W Nees Ave
Date:	03/05/2024
Field Tech/Engineer:	Jason Schuyler / Rachel Edelman

Site Observations:

Sunny with scattered clouds, temps in the low 40's F. Winds 0-1.

Sound Meter:	XL2, NTI	**SN:**	A2A-08562-E0
Settings:	A-weighted, slow, 1-sec, 15-minute interval		
Site Id:	NM1, NM2, NM3		



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name: Valley Crescent Noise

Site Address/Location: 547 W Nees Ave

Site Id: NM1, NM2, NM3

Figure 1: NM1

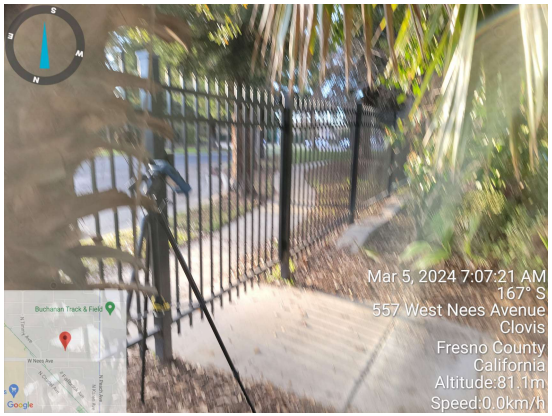


Figure 2: NM2

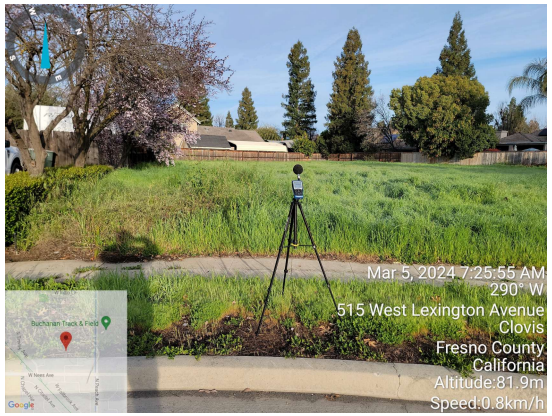


Figure 3: NM3

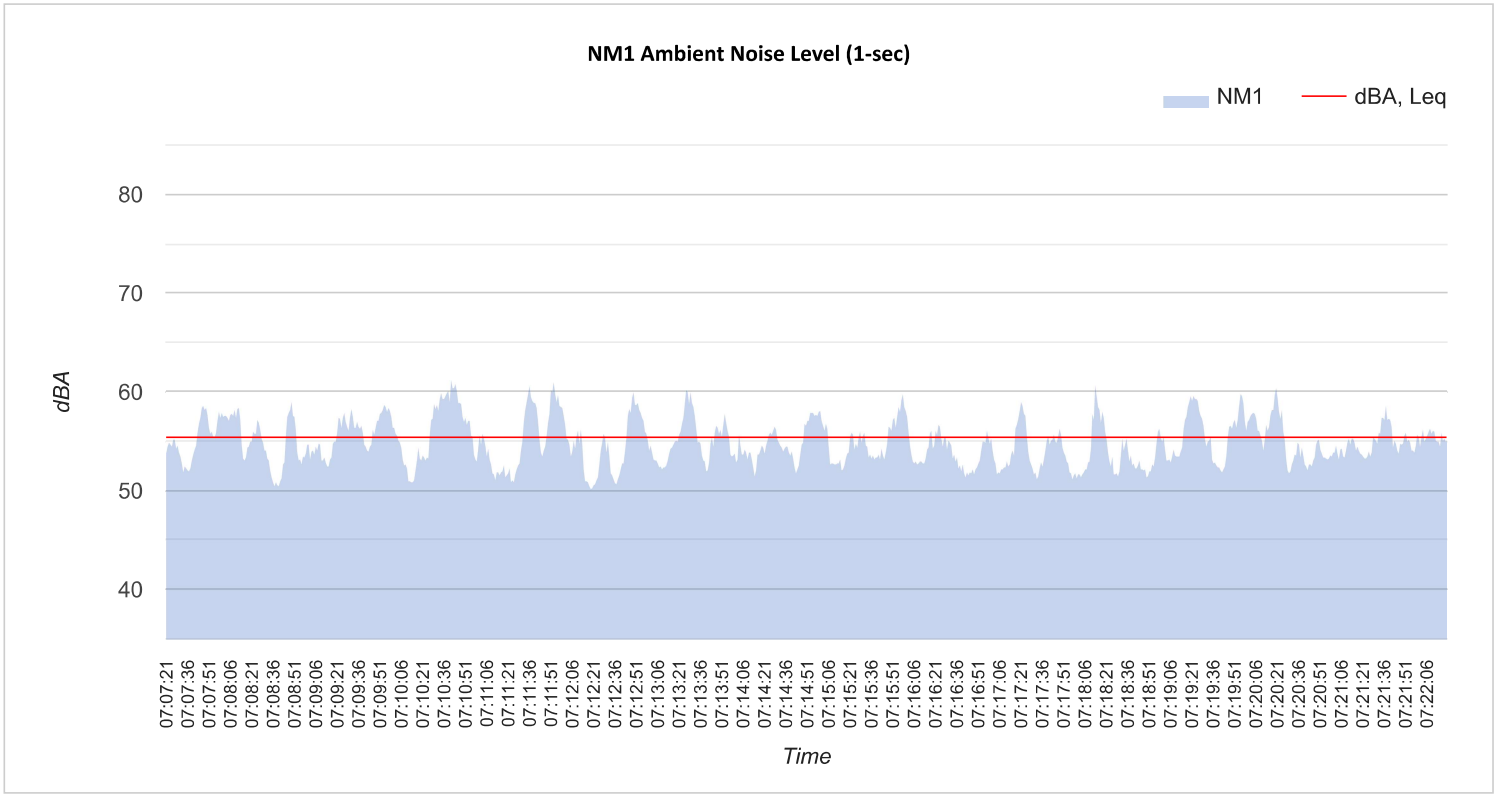
Table 1: Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
NM1	7:07 AM	7:22 AM	55.4	60.6	50.2	59.7	58.4	56.4	54.6	52
NM2	7:26 AM	7:41 AM	50.3	53.4	48.2	52	51.4	50.7	50.3	49.2
NM3	7:44 AM	7:59 AM	52.3	69.0	41.3	63.7	52.1	46.1	44.1	42.4

MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

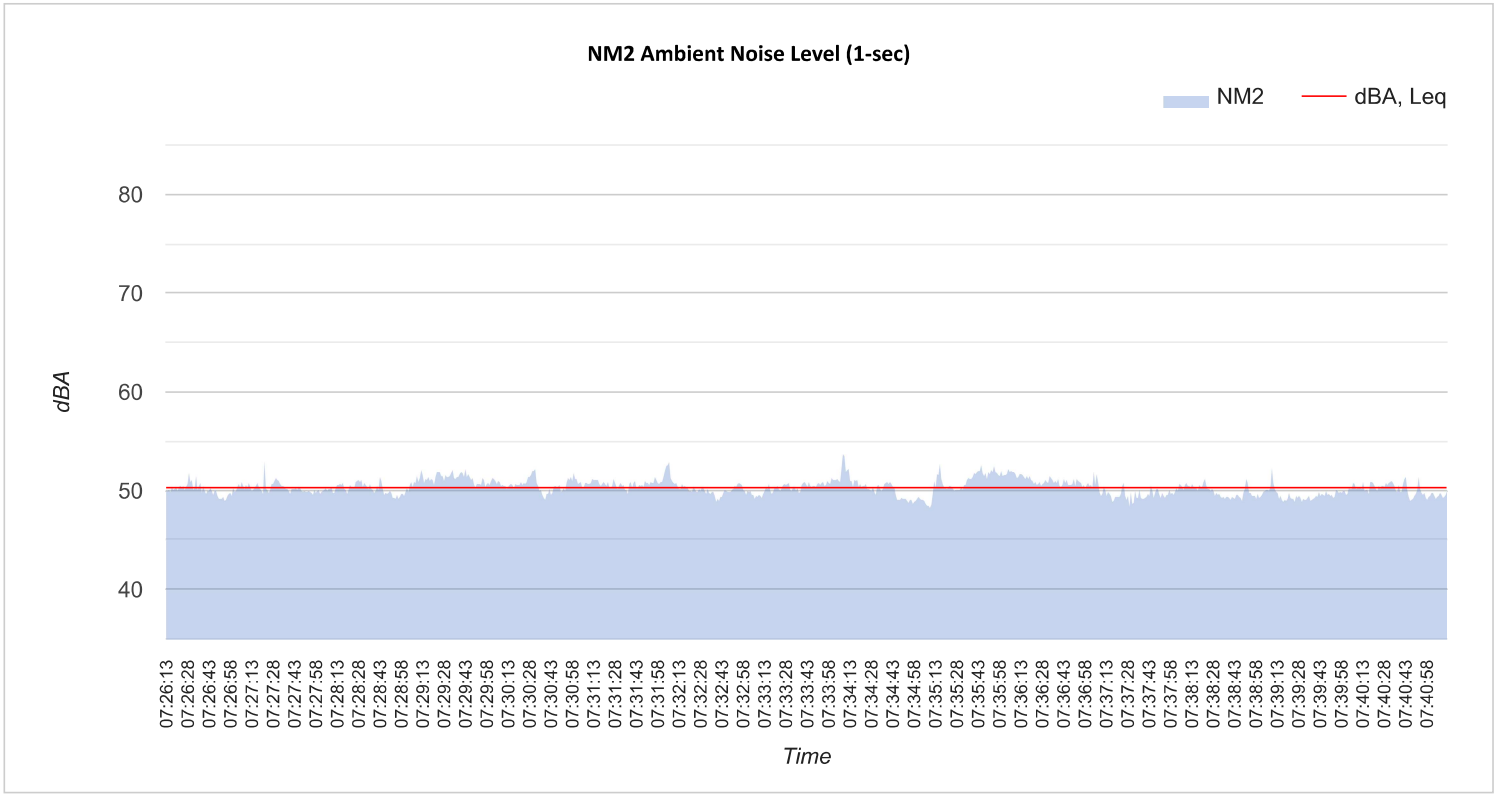
Project Name:	Valley Crescent Noise	**Site Topo:**	Buildings 1-2 stories tall	**Noise Source(s) w/ Distance:**
Site Address/Location:	547 W Nees Ave	**Meteorological Cond.:**	42F WInds 0-3MPH Scattered clouds, Mostly sunny	road noise and residential noise
Site Id:	NM1	**Ground Type:**	Sandy soil and clay	



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

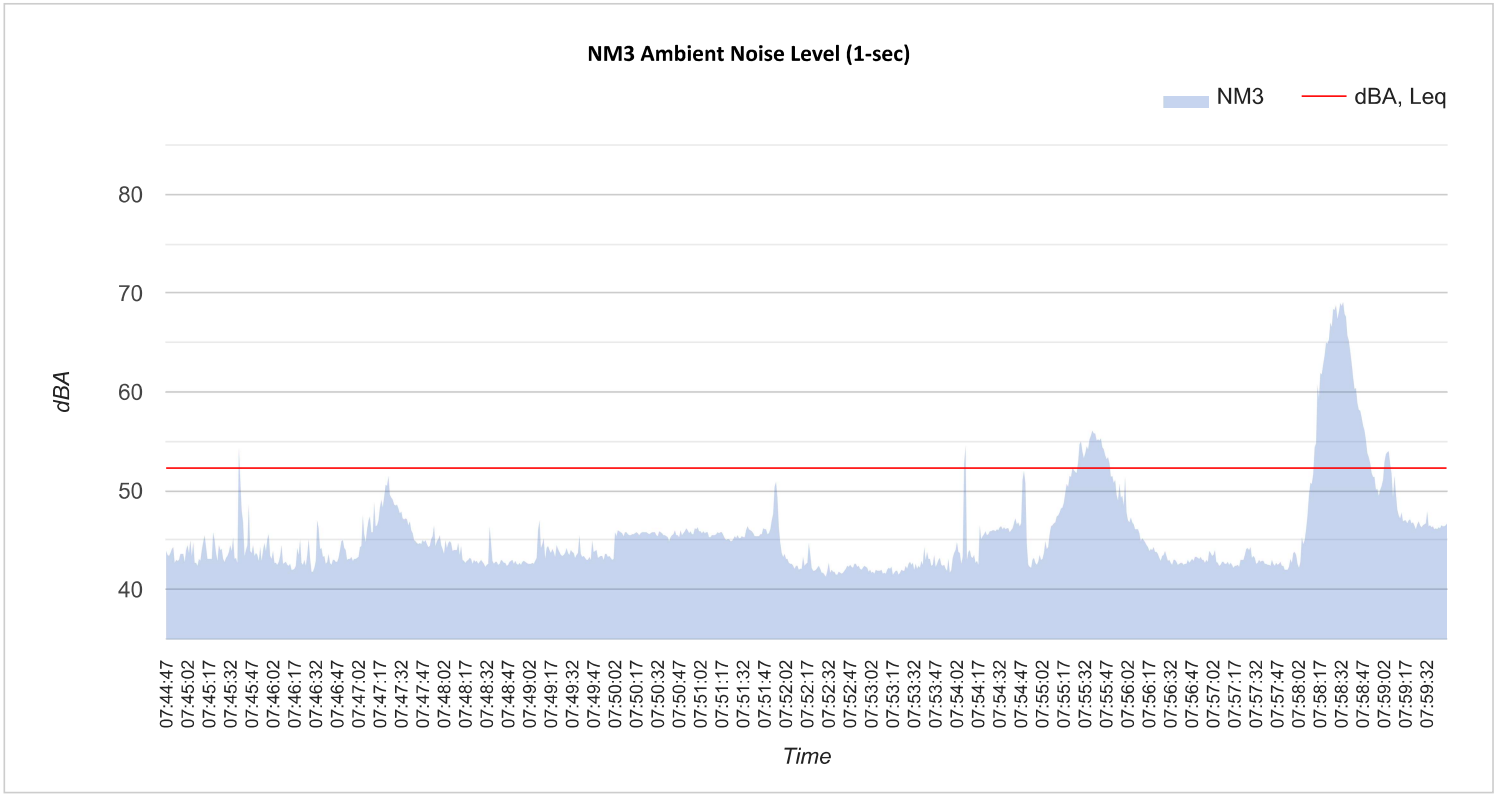
Project Name:	Valley Crescent Noise	**Site Topo:**	Buildings 1-2 stories tall	**Noise Source(s) w/ Distance:**
Site Address/Location:	547 W Nees Ave	**Meteorological Cond.:**	42F WInds 0-3MPH Scattered clouds, Mostly sunny	road noise and residential noise
Site Id:	NM2	**Ground Type:**	buildings and asphalt next to vacant lot	



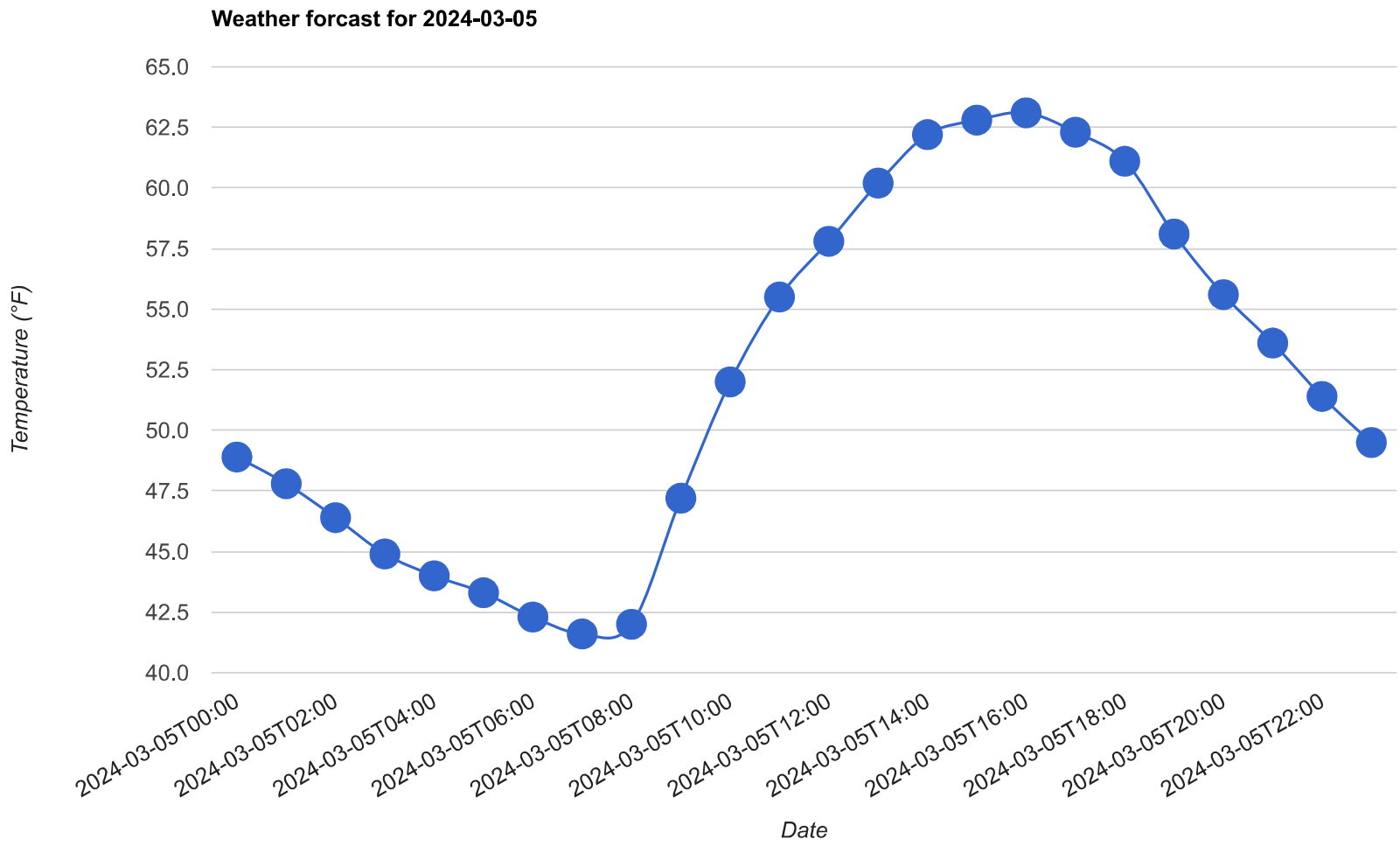
MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name:	Valley Crescent Noise	**Site Topo:**	Buildings 1-2 stories tall	**Noise Source(s) w/ Distance:**
Site Address/Location:	547 W Nees Ave	**Meteorological Cond.:**	42F WInds 0-3MPH Scattered clouds, Mostly sunny	road noise and residential noise
Site Id:	NM3	**Ground Type:**	buildings and asphalt	



MD ACOUSTICS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62.5
60.0
57.5
55.0
52.5
50.0
47.5
45.0
42.5
40.0
Temperature (°F)
2024-03-05T00:00
2024-03-05T02:00
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2024-03-05T06:00
2024-03-05T08:00
2024-03-05T10:00
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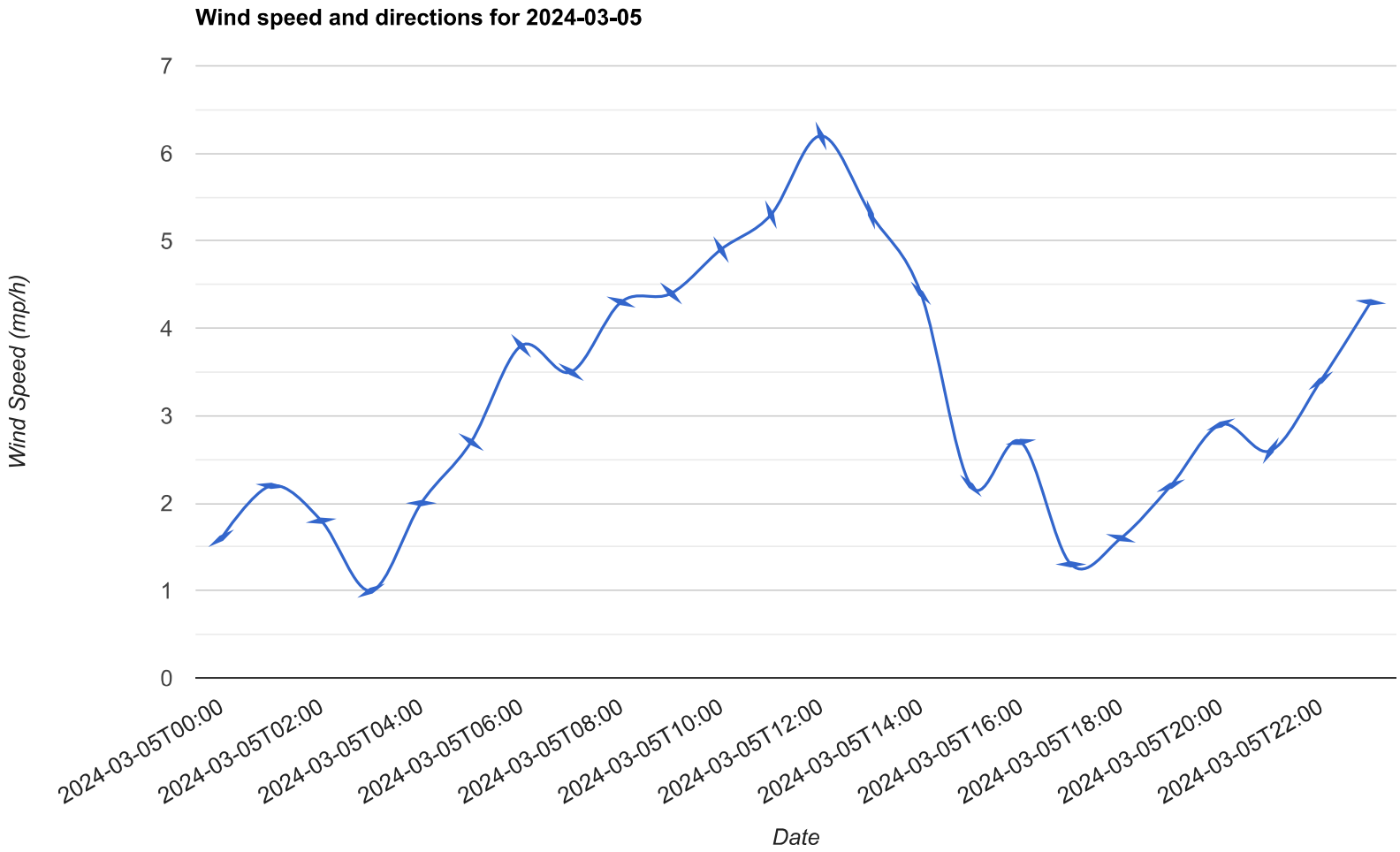
Date



Source: Global Forecast System (GFS) weather forcast model

Appendix B:

FHWA Roadway Noise Modeling Worksheets

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

PROJECT: VALLEY CRESCENT SCHOOL
ROADWAY: W NEES AVE
LOCATION: S OF PROJECT SITE

JOB #: 1098-2024-004
DATE: ########
ENGINEER: R.Edelman

NOISE INPUT DATA - EXISTING (2019)

ROADWAY CONDITIONS

ADT =	16,244	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DI	54	
ROAD ELEVATION =	0.0	
GRADE =	1.0	%
PK HR VOL =	1,624	

RECEIVER INPUT DATA

RECEIVER DISTANCE =	50	
DIST C/L TO WALL =	50	
RECEIVER HEIGHT =	5.0	
WALL DISTANCE FROM RECEIVER	0	
PAD ELEVATION =	0.5	
ROADWAY VIEW: LF ANGLE=	-90	
RT ANGLE=	90	
DF ANGLE=	180	

SITE CONDITIONS

AUTOMOBILES =	15	
MEDIUM TRUCKS =	15	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	15	

WALL INFORMATION

HTH WALL	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.9742
MEDIUM TRUCK	0.848	0.049	0.103	0.0184
HEAVY TRUCKS	0.865	0.027	0.108	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	42.23	- -
MEDIUM TRUCKS	4.0	42.11	- -
HEAVY TRUCKS	8.0	42.16	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.3	67.4	65.6	59.6	68.2	68.8
MEDIUM TRUCKS	60.4	58.8	52.5	50.9	59.4	59.6
HEAVY TRUCKS	60.9	59.5	50.5	51.7	60.1	60.2
NOISE LEVELS (dBA)	70.3	68.5	66.0	60.7	69.3	69.8

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.3	67.4	65.6	59.6	68.2	68.8
MEDIUM TRUCKS	60.4	58.8	52.5	50.9	59.4	59.6
HEAVY TRUCKS	60.9	59.5	50.5	51.7	60.1	60.2
NOISE LEVELS (dBA)	70.3	68.5	66.0	60.7	69.3	69.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	49	105	225	485
LDN	45	97	208	448

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

PROJECT: VALLEY CRESCENT SCHOOL
ROADWAY: W NEES AVE
LOCATION: S OF PROJECT SITE

JOB #: 1098-2024-004
DATE: ########
ENGINEER R.Edelman

NOISE INPUT DATA - EXISTING (2019) + PROJECT

ROADWAY CONDITIONS

ADT =	16,728	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DI:	54	
ROAD ELEVATION =	0.0	
GRADE =	1.0	%
PK HR VOL =	1,673	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		50
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVEF		0
PAD ELEVATION =		0.5
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	15	
MEDIUM TRUCKS =	15	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	15	

WALL INFORMATION

HTH WALL	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.9742
MEDIUM TRUCK	0.848	0.049	0.103	0.0184
HEAVY TRUCKS	0.865	0.027	0.108	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	42.23	- -
MEDIUM TRUCKS	4.0	42.11	- -
HEAVY TRUCKS	8.0	42.16	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.5	65.8	59.7	68.3	68.9
MEDIUM TRUCKS	60.5	59.0	52.6	51.1	59.5	59.8
HEAVY TRUCKS	61.0	59.6	50.6	51.8	60.2	60.3
NOISE LEVELS (dBA)	70.5	68.7	66.1	60.8	69.4	69.9

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.5	65.8	59.7	68.3	68.9
MEDIUM TRUCKS	60.5	59.0	52.6	51.1	59.5	59.8
HEAVY TRUCKS	61.0	59.6	50.6	51.8	60.2	60.3
NOISE LEVELS (dBA)	70.5	68.7	66.1	60.8	69.4	69.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	49	107	230	495
LDN	46	99	212	457

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

PROJECT: VALLEY CRESCENT SCHOOL
ROADWAY: W NEES AVE
LOCATION: S OF PROJECT SITE

JOB #: 1098-2024-004
DATE: ########
ENGINEER: R.Edelman

NOISE INPUT DATA - FUTURE (2035) + PROJECT

ROADWAY CONDITIONS

ADT =	23,672	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DI	54	
ROAD ELEVATION =	0.0	
GRADE =	1.0	%
PK HR VOL =	2,367	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		110
DIST C/L TO WALL =		110
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER		0
PAD ELEVATION =		0.5
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	15	
MEDIUM TRUCKS =	15	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	15	

WALL INFORMATION

HTH WALL	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.775	0.129	0.096	0.9742
MEDIUM TRUCK	0.848	0.049	0.103	0.0184
HEAVY TRUCKS	0.865	0.027	0.108	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	106.69	- -
MEDIUM TRUCKS	4.0	106.65	- -
HEAVY TRUCKS	8.0	106.66	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.9	63.0	61.2	55.2	63.8	64.4
MEDIUM TRUCKS	55.9	54.4	48.1	46.5	55.0	55.2
HEAVY TRUCKS	56.5	55.1	46.0	47.3	55.6	55.8
NOISE LEVELS (dBA)	65.9	64.1	61.6	56.3	64.9	65.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.9	63.0	61.2	55.2	63.8	64.4
MEDIUM TRUCKS	55.9	54.4	48.1	46.5	55.0	55.2
HEAVY TRUCKS	56.5	55.1	46.0	47.3	55.6	55.8
NOISE LEVELS (dBA)	65.9	64.1	61.6	56.3	64.9	65.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	54	117	252	543
LDN	50	108	233	502

Appendix C:

Construction Noise Modeling Output

Receptor - Residence to the East

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Edge of Site to Receptor, feet	Center of Site to Receptor, feet	Item Usage Percent[1]	Ground Factor[2]	Usage Factor	Receptor Item Lmax, dBA	Recptor. Item Leq, dBA
DEMO									
Excavator	0	81	**15**	**115**	40	**0.66**	0.40	0.0	0.0
Dozer	1	82	15	115	40	0.66	0.40	95.9	68.4
Concrete Saw	1	90	15	115	20	0.66	0.20	103.9	73.4
Tractor	3	84	15	115	40	0.66	0.40	97.9	70.4
							Log Sum	103.9	76.0
SITE PREP									
Grader	1	85	15	115	40	0.66	0.40	98.9	71.4
Tractor	1	84	15	115	40	0.66	0.40	97.9	70.4
Dozer	1	82	15	115	40	0.66	0.40	95.9	68.4
Scraper	0	84	15	115	40	0.66	0.40	0.0	0.0
							Log Sum	98.9	73.9
GRADE									
Dozer	1	82	15	115	40	0.66	0.40	95.9	68.4
Tractor	2	84	15	115	40	0.66	0.40	97.9	70.4
Grader	1	85	15	115	40	0.66	0.40	98.9	71.4
Excavator	0	81	15	115	40	0.66	0.40	0.0	0.0
Scraper	0	84	15	115	40	0.66	0.40	0.0	0.0
								98.9	76.3
BUILD									
Crane	1	81	15	115	16	0.66	0.16	94.9	63.4
Man lift	1	75	15	115	20	0.66	0.20	88.9	58.4
Tractor	1	84	15	115	40	0.66	0.40	97.9	70.4
Welder/Torch	3	74	15	115	40	0.66	0.40	87.9	60.4
Generator	1	81	15	115	50	0.66	0.50	94.9	68.4
								97.9	73.8
PAVE									
Paver	1	77	15	115	50	0.66	0.50	90.9	64.4
Concrete Mixer Truck	1	79	15	115	40	0.66	0.40	92.9	65.4
Roller	1	80	15	115	20	0.66	0.20	93.9	63.4

Tractor	1	84	15	115	40	0.66	0.40	97.9	70.4
Compactor (ground)	1	83	15	115	20	0.66	0.20	96.9	66.4
								97.9	71.1
ARCH COAT									
Compressor (air)	1	78	15	115	40	0.66	0.40	91.9	64.4
								91.9	64.4

[1]FHWA Construction Noise Handbook: Table 9.1 RCNM Default Noise Emission Reference Levels and Usage Factors

VIBRATION LEVEL IMPACT

Project:	Valley Crescent School	Date: 3/15/24
Source:	Vibratory Roller	
Scenario:	Unmitigated	
Location:	Adjacent residences	
Address:	Clovis, CA	

PPV = PPVref(25/D)^n (in/sec)

DATA INPUT

Equipment = Type	1	Vibratory Roller	INPUT SECTION IN BLUE
PPVref =	0.21	Reference PPV (in/sec) at 25 ft.	
D =	20.00	Distance from Equipment to Receiver (ft)	
n =	1.10	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

DATA OUT RESULTS

PPV =	**0.268**	IN/SEC	OUTPUT IN RED

SALEM engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, California 93722
(559) 271-9700 Office
(559) 275-0927 Fax

December 2024 **Job No. 1-724-0185**

Dr. Mohammad Asharf
Valley Crescent School
547 West Nees Avenue
Clovis, CA 93611

Subject: **FINAL TRAFFIC IMPACT ANALYSIS**
Proposed Building Addition – Valley Crescent School
547 West Nees Avenue
Clovis, California

Dear Dr. Asharf:

At your request and authorization, a Traffic Impact Analysis (TIA) for the above-referenced project located at 547 West Nees Avenue in the City of Clovis, California (subject property) was conducted by SALEM's Traffic subconsultant (see following report).

This TIA analyzes the projected traffic operations associated with the proposed building addition. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from the development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Clovis via a scoping agreement (See Appendix B) and follows the City of Clovis General Plan (City General Plan) (August 2014) and the City of Clovis Transportation Impact Analysis Guidelines (City Guidelines) (September 2022).

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Cresent School, to accommodate 240 additional students. Site access will be via the existing right in/right-out driveway on West Nees Avenue. The site is within the boundaries of the *City of Clovis Herndon-Shepherd Specific Plan* (June 1988). According to the *City General Plan* Land Use Designation Map (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Please refer to the following report for details resulting from this TIA. We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully submitted,

SALEM Engineering Group, Inc.

Maria G. Ruvalcaba
Managing Partner

547 West Nees Avenue Traffic Impact Analysis

City of Clovis, California

December 3, 2024

Prepared by:

TJW ENGINEERING, INC.
9841 Irvine Center Drive, Suite 200
Irvine, CA 92618
949.878.3509 | www.tjwengineering.com

December 3, 2024

TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

Maria Ruvalcaba
SALEM ENGINEERING GROUP, INC.
8711 Monroe Court, Suite A
Rancho Cucamonga, CA 91730

Subject: Traffic Impact Analysis – 547 West Nees Avenue, City of Clovis, CA

Dear Ms. Ruvalcaba:

TJW ENGINEERING, INC. (TJW) is pleased to present you with this traffic impact analysis for the proposed project at 547 West Nees Avenue in the City of Clovis, comprised of the construction of additional classrooms to the existing private school to accommodate 240 additional students.

This traffic study has been prepared to meet the traffic study requirements for the City of Clovis and assesses the forecast traffic operations associated with the proposed project and its impact on the local street network. This report is being submitted to you for review and forwarding to the City of Clovis.

Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,

Thomas Wheat, PE, TE
President
Registered Civil Engineer *#69467*
Registered Traffic Engineer *#2565*

David Chew, PTP
Transportation Planner

Travis Yokota
Assistant Transportation Planner

547 West Nees Avenue Traffic Impact Analysis

City of Clovis, California

December 3, 2024

Prepared for:
Maria Ruvalcaba
SALEM ENGINEERING GROUP, INC.
8711 Monroe Court, Suite A
Rancho Cucamonga, CA 91730

Prepared by:
Thomas Wheat, PE, TE
David Chew, PTP
Travis Yokota

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Irvine, CA 92618
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Appendices

1.0 EXECUTIVE SUMMARY

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed project at 547 West Nees Avenue in the City of Clovis. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from the development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Clovis via a scoping agreement (See **Appendix B**) and follows the *City of Clovis General Plan (City General Plan)* (August 2014) and the *City of Clovis Transportation Impact Analysis Guidelines (City Guidelines)* (September 2022).

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Cresent School, to accommodate 240 additional students. Site access will be via the existing right-in/right-out driveway on West Nees Avenue. The site is within the boundaries of the *City of Clovis Herndon-Shepherd Specific Plan* (June 1988). According to the *City General Plan* Land Use Designation Map (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Full student capacity with the additional 240 students is anticipated to be reached by 2031. An annual growth rate of 2% is used to account for 2031 traffic volumes. When capacity is reached, the proposed project is expected to generate an additional 484 daily trips which includes 242 AM peak hour trips and 62 PM peak hour trips.

The following three (3) intersections in the vicinity of the project site have been included in the level of service (LOS) analysis:

1. North Peach Avenue/West Nees Avenue
2. North Willow Avenue/West Nees Avenue
3. Project Driveway/West Nees Avenue

The study intersections are analyzed for the following study scenarios:

- Existing Traffic Conditions (Existing);
- Existing Plus Project Traffic Conditions (EP);
- Near-Term (Existing + Ambient + Cumulative + Project) Traffic Conditions (NT);
- Long-Term (Horizon Year 2040 + Project) Traffic Conditions (LT).

1.1 SUMMARY OF LEVEL OF SERVICE ANALYSIS RESULTS

Table ES-1 summarizes the results of the intersection level of service analysis based on the City of Clovis thresholds of significance for analyzing transportation deficiencies.

Table ES-1

Summary of Transportation Deficiencies at Study Intersections

Intersection			Existing Conditions	EP Conditions	NT Conditions	LT Conditions
1	North Peach Avenue	West Nees Avenue	-	-	-	-
2	North Willow Avenue	West Nees Avenue	-	-	-	-
3	Project Driveway	West Nees Avenue	-	-	-	-

Existing Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Existing* traffic conditions.

Existing Plus Project (EP) Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Existing Plus Project* traffic conditions.

Near-Term (NT) Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Near-Term (NT) Traffic Conditions* traffic conditions.

Long-Term (LT) Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Long-Term (LT) Traffic Conditions* traffic conditions.

1.2 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Wherever necessary, roadways adjacent to the proposed project site and site access points will be constructed in compliance with recommended roadway classifications and respective cross-sections in the *City General Plan* or as directed by the City Engineer.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City sight distance standards at the time of final grading, landscaping and street improvement plans.

Signing/striping should be implemented in conjunction with detailed construction plans for the project site.

2.0 INTRODUCTION

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed project at 547 West Nees Avenue in the City of Clovis. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from the development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Clovis via a scoping agreement (See **Appendix B**) and follows the *City of Clovis General Plan (City General Plan)* (August 2014) and the *City of Clovis Transportation Impact Analysis Guidelines (City Guidelines)* (September 2022).

2.1 PROJECT DESCRIPTION

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Cresent School, to accommodate 240 additional students. Site access will be via the existing right-in/right-out driveway on West Nees Avenue. The site is within the boundaries of the *City of Clovis Herndon-Shepherd Specific Plan* (June 1988). According to the *City General Plan* Land Use Designation Map (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Full student capacity is expected to be reached by 2031. An annual growth rate of 2% is used to account for 2031 traffic volumes. **Exhibit 1** shows the project site location. **Exhibit 2** shows the proposed project site plan.

2.2 STUDY AREA

The following three (3) intersections in the vicinity of the project site have been included in the level of service (LOS) analysis:

1. North Peach Avenue/West Nees Avenue
2. North Willow Avenue/West Nees Avenue
3. Project Driveway/West Nees Avenue

Exhibit 3**Exhibit 3** shows the locations of the study intersections.

The study intersections are analyzed for the following study scenarios:

- Existing Traffic Conditions (Existing);
- Existing Plus Project Traffic Conditions (EP);
- Near-Term (Existing + Ambient + Cumulative + Project) Traffic Conditions (NT);
- Long-Term (Horizon Year 2040 + Project) Traffic Conditions (LT).

Traffic operations are evaluated for the following time periods:

- Weekday AM Peak Hour occurring between 7:00 AM to 9:00 AM; and
- Weekday PM Peak Hour occurring between 4:00 PM to 6:00 PM.

2.3 INTERSECTION ANALYSIS METHODOLOGY

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops). The *Highway Capacity Manual (HCM) 7th Edition* (Transportation Research Board, 2022) methodology expresses the LOS of an intersection in terms of delay time for the intersection approaches. The HCM methodology utilizes different procedures for different types of intersection control.

The *City General Plan* recommends signalized intersection operations to be analyzed utilizing the HCM 7th Edition methodology. Intersection LOS for signalized intersections is based on the intersections average control delay for all movements at the intersection during the peak hour. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The procedure for stop-control analysis determines the average total delay, expressed in seconds of delay per vehicle, for left turns from the major street and from the stop-controlled minor street traffic stream. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable "gaps" in this stream through which conflicting traffic movements can be made.

Table 1 describes the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

Table 1:
HCM – LOS & Delay Ranges – Signalized Intersections

Level of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long-standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual, 7th Edition* (Washington D.C., 2022).

Collected peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. It is a common practice in LOS analysis to conservatively use a peak 15-minute flow rate applied to the entire hour to derive flow rates in vehicles per hour that are used in the LOS analysis. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume. PHF = [Hourly Volume]/ [4 * Peak 15-Minute Volume]. The use of a 15-minute PHF produces a more detailed and conservative analysis compared to analyzing vehicles per hour. Existing PHFs, obtained from the *Existing* traffic counts have been used for all analysis scenarios in this study.

The *City General Plan* also recommends unsignalized intersection operations to be analyzed utilizing the HCM 7th Edition methodology. Intersection operation for unsignalized intersections is based on the weighted average control delay expressed in seconds per vehicle.

At a two-way or side-street stop-controlled intersection, LOS is calculated for each stop-controlled minor street movement, for the left-turn movement(s) from the major street, and for the intersection as a whole. For approaches consisting of a single lane, the delay is calculated as the average of all movements in that lane. For all-way stop-controlled intersection, LOS is computed for the intersection as a whole. **Table 2** describes the general characteristics of traffic flow and accompanying delay ranges at unsignalized intersections.

Table 2:
HCM – LOS & Delay Ranges – Unsignalized Intersections

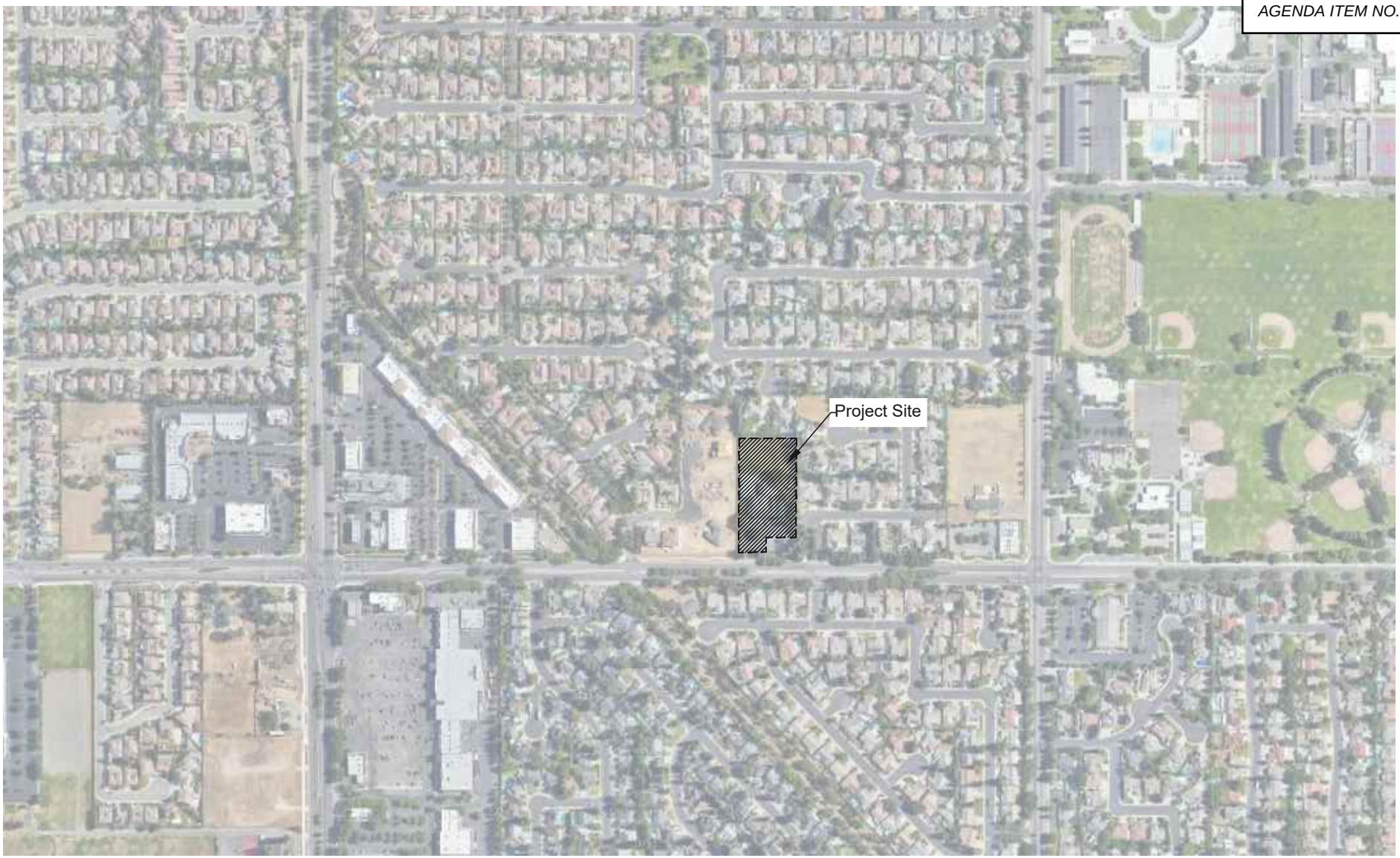
Level of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long-standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual, 7th Edition* (Washington D.C., 2022).

This analysis utilizes *PTV Vistro*, Version 2022 analysis software for all signalized and unsignalized intersections. Vistro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis specified in Chapter 16 of the HCM. The level of service and capacity analysis performed within Vistro takes the optimization and coordination of signalized intersections within a network into consideration.

2.3 PERFORMANCE CRITERIA

The *City General Plan* aims to achieve LOS "D" or better for vehicle traffic operations during both AM and PM peak hours. The *City Guidelines* add that for both signalized and unsignalized intersections, a traffic operation issue is identified if the proposed project increases the average delay that is already operating at an unacceptable LOS, or less than LOS D.



Legend:

Project Site

Exhibit 1: Project Location

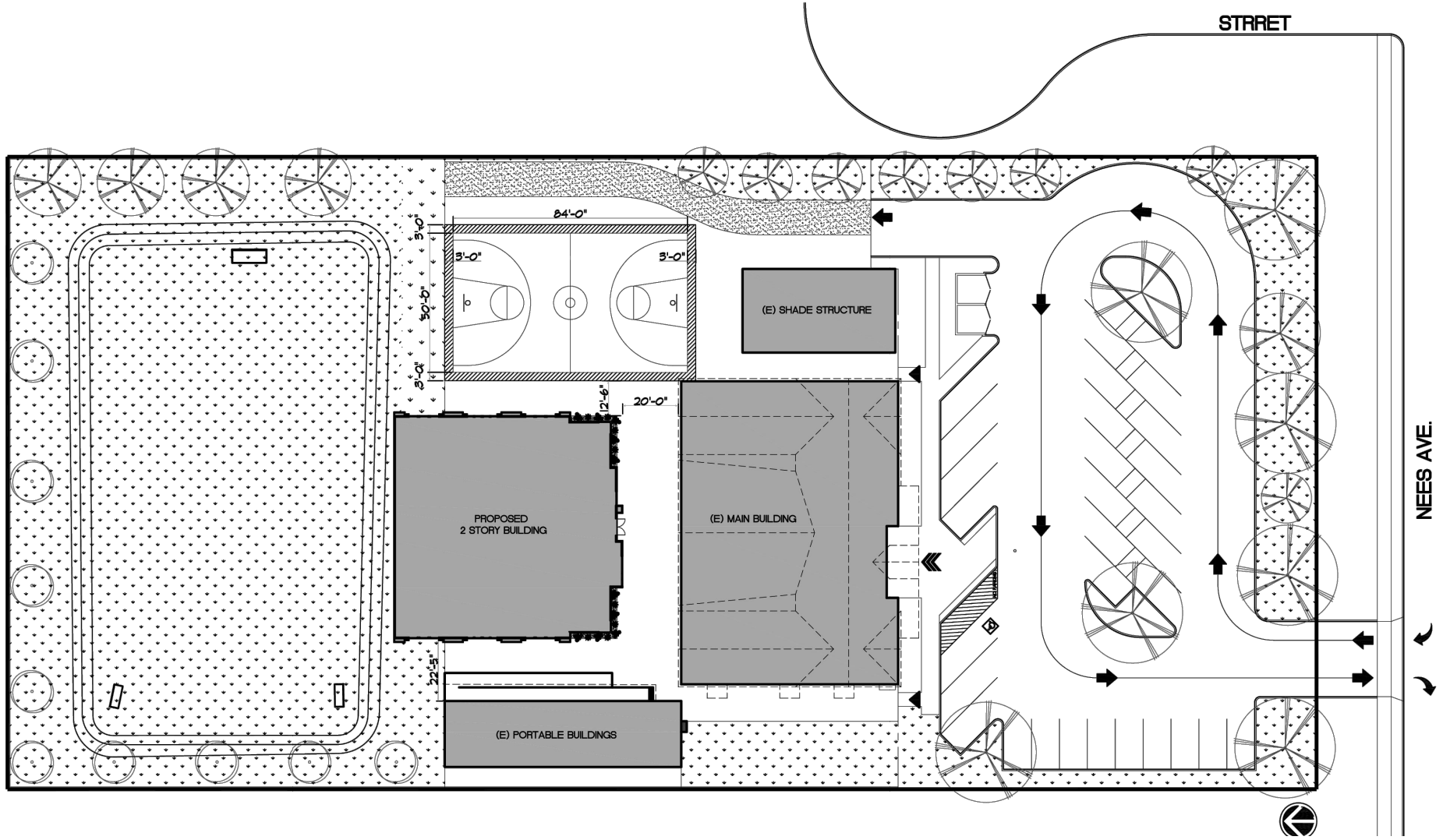


Exhibit 2: Proposed Project Site Plan

Legend:

Project Site

(#) Study Intersection Location

Exhibit 3: Project Study Area

3.0 EXISTING TRAFFIC CONDITIONS

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The *City General Plan* classifies its streets and highways by their function. The *City General Plan* description of the roadway classifications can be found in **Appendix B**. The characteristics of the roadways in the vicinity of the proposed project site are described in **Table 3.**

Table 3:
Roadway Characteristics within Study Area

Roadway	Classification[1]	Jurisdiction	Direction	Existing Travel Lanes	Median Type[2]	Speed Limit (mph)	On-Street Parking
West Nees Avenue	Arterial	Clovis	East-West	4	RM	45	No
North Peach Avenue	Collector	Clovis	North-South	2	TWLTL	40	No
North Willow Avenue	Arterial	Clovis	North-South	6	RM	50	No

1: Sources: City of Clovis General Plan (August 2014).
2: TWLTL = Two-Way Left-Turn Lane, RM= Raised Median.

Exhibit 4 shows the *Existing* intersection controls and roadway geometry of the study area.

3.2 PEDESTRIAN AND BICYCLE FACILITIES

Within the project study area, the *City General Plan* identifies Class II bike lanes on all three roadways in the study area, West Nees Avenue, North Peach Avenue, and North Willow Avenue. Class II lanes are on-street striped lanes for one-way bicycle travel. See **Appendix B** for a map of the City of Clovis bicycle system.

In addition, paved sidewalks for pedestrians are located along all three roadways in the study area, West Nees Avenue, North Peach Avenue, and North Willow Avenue.

3.3 EXISTING PUBLIC TRANSIT SERVICES

The City of Clovis is served by the Clovis Transit, which provides bus service throughout the City of Clovis. The proposed project is located within one-half mile of two stops. The first is along Willow Blue Line Northbound and Southbound at the intersection of North Willow Avenue and West Nees Avenue. The second is along the Clovis Avenue Yellow Line Northbound along North Peach Avenue just south of West Teague Avenue. See **Appendix B** for the Blue and Yellow route maps and schedules.

3.4 EXISTING TRAFFIC VOLUMES

To determine the *Existing* operation of the study intersections and roadway segments, AM and PM peak period traffic volumes were collected on Thursday, August 29, 2024. Detailed traffic count data is provided in **Appendix C**. The *Existing* traffic conditions AM and PM peak hour volumes at each study intersection are shown in **Exhibit 5Error! Reference source not found.**.

3.5 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

The AM and PM peak hour intersection analysis of the *Existing* traffic conditions are shown in **Table 4.** Calculations are based on the current geometrics at each study area intersection as shown in **Exhibit 4.** HCM analysis reports are provided in **Appendix D**.

Table 4:
Intersection Analysis – Existing Traffic Conditions

Intersection			Control Type[1]	Target LOS	Peak Hour	Existing Conditions	
						Delay[2]	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	31.8	C
					PM	33.6	C
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	32.4	C
					PM	36.1	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	14.1	B
					PM	10.8	B

1: TWSC = Two-Way Stop-Control.
2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 4**, the study intersections under *Existing* traffic conditions are currently operating at an acceptable LOS during the AM and PM peak hours.

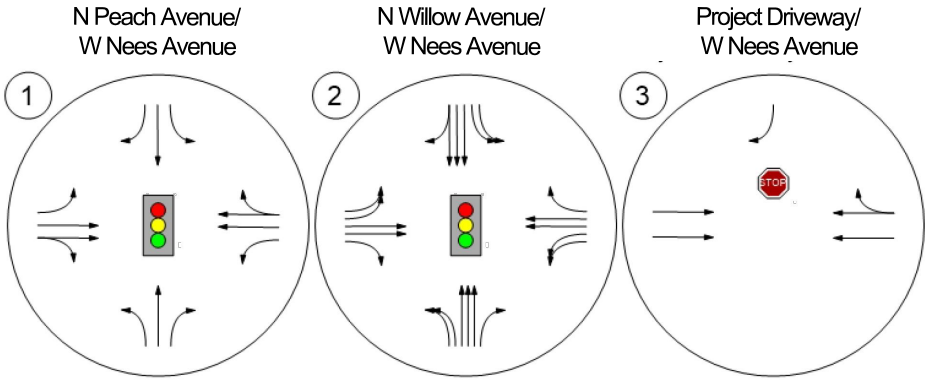


Exhibit 4: Existing Lane Geometry and Intersection Control

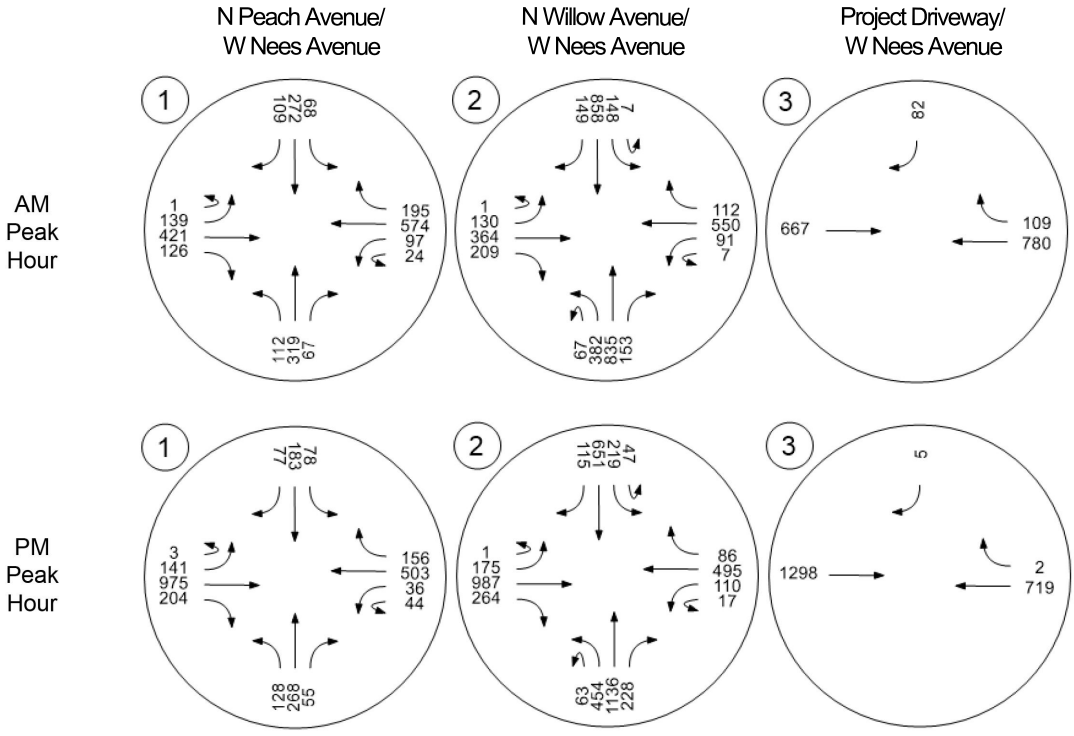


Exhibit 5: Existing AM and PM Peak Hour Volume

4.0 PROPOSED PROJECT

4.1 PROJECT DESCRIPTION

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Cresent School, to accommodate 240 additional students. Site access will be via the existing right-in/right-out driveway on West Nees Avenue. According to the *City General Plan* Land Use Designation Map (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Full student capacity is expected to be reached by 2031. An annual growth rate of 2% is used to account for the 2031 traffic volumes.

Exhibit 2 previously showed the proposed project site plan.

4.2 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation for a proposed project is based on projecting the amount of traffic that the specific land uses being proposed will produce. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021)* trip generation rates were used to determine trip generation of for most of the proposed project land uses.

Table 5 summarizes the projected AM and PM peak hour and daily trip generation of the proposed project. The proposed project is projected to generate 484 daily trips which includes 202 AM peak hour trips and 62 PM peak hour trips.

Table 5:
Proposed Project Trip Generation

Proposed Land Use[1]	ITE Code	Qty	Unit[2]	Daily		AM Peak Hour					PM Peak Hour				
				Rate[3]	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
								In	Out	Total			In	Out	Total
Private School (K-8)	530	240	STU	-	484	1.01	56:44	136	106	242	0.26	46:54	29	33	62

1: Trip generation rates are from the ITE Trip Generation Manual (11th Edition, 2021).
2: STU = Students.
3: Due to the small sample size of daily trip rates for ITE code 530, daily trips are assumed to be twice the AM trips since trips are anticipated to include school drop off and pick up.

4.3 PROJECT TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project's traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the probable routes onto which project traffic would distribute. The projected trip distribution for the proposed project is based on anticipated travel patterns to and from the project site. **Exhibit 6** shows the project proposed trip distribution.

Legend:

▨	Project Site
(#)	Study Intersection Location
(XX%)	Percent Trip Distribution

Exhibit 6: Proposed Trip Distribution

5.0 EXISTING PLUS PROJECT (EP) TRAFFIC CONDITIONS

The *Existing Plus Project (EP)* traffic conditions analysis is intended to identify current baseline conditions plus the proposed project.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *EP* conditions scenario are consistent with those previously shown in **Exhibit 4**.

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUMES

The *EP* traffic conditions scenario analyzes *Existing* volumes with no growth rate applied, plus project traffic volumes. It does not include background traffic. **Exhibit 7** shows *EP* AM and PM peak hour volumes at the study intersections.

EP Volumes = Existing Counts + Proposed Project

5.3 EXISTING PLUS PROJECT INTERSECTION LOS ANALYSIS

The AM and PM peak hour intersection analysis of the *EP* traffic conditions are shown in **Table 6**. Calculations are based on the current geometrics at the study area intersections.

Table 6:
Intersection Analysis – Existing Plus Project Traffic Conditions

Intersection			Control Type[1]	Target LOS	Peak Hour	Existing Conditions		EP Conditions	
						Delay[2]	LOS	Delay[2]	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	31.8	C	32.4	C
					PM	33.6	C	33.6	C
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	32.4	C	33.2	C
					PM	36.1	D	38.9	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	14.1	B	21.9	C
					PM	10.8	B	11.3	B

1: TWSC = Two-Way Stop-Control.
2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 6,** the study intersections under *EP* traffic conditions are projected to continue to operate at an acceptable LOS during the AM and PM peak hours.

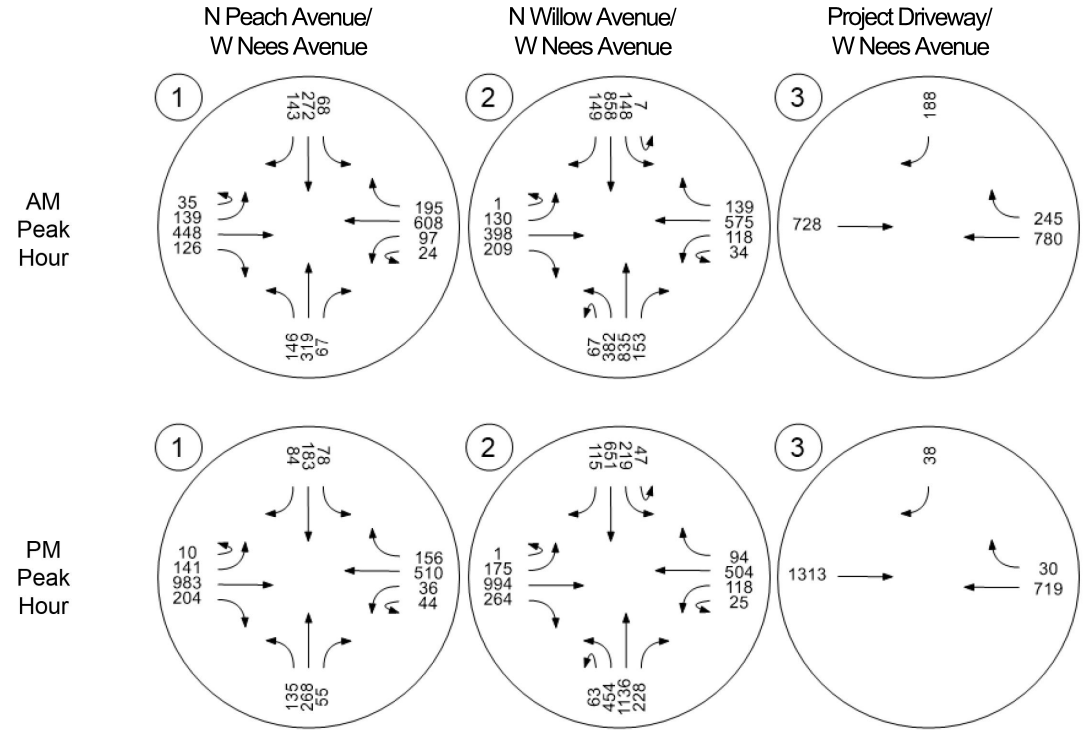


Exhibit 7: Existing Plus Project AM and PM Peak Hour Volume

6.0 NEAR-TERM (NT) TRAFFIC CONDITIONS

The *Near-Term (Existing + Ambient + Cumulative + Project) (NT)* traffic conditions analysis is intended identify traffic conditions in the near-term with the addition of cumulative project and proposed project conditions.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Existing* traffic conditions scenario are consistent with those previously shown in **Exhibit 4**.

6.2 CUMULATIVE PROJECTS

Other reasonably foreseeable development projects which are either approved or are currently being processed in the study area are also included as part of the *NT* analysis scenario. A list of cumulative projects was developed for this analysis through consultation with City staff. **Exhibit 8** displays a map of approved cumulative projects within a one-half mile radius which provided by the City of Clovis. A summary of the cumulative project land uses and trips generated is shown in Table 7.

Table 7:
Cumulative Project Trip Generation

Project		Land Use[1]	ITE Code	Qty	Unit[2]	Daily		AM Peak Hour					PM Peak Hour				
						Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
										In	Out	Total			In	Out	Total
1.	MFRDR 2021-002	Multifamily Housing (Low-Rise)	220	258	DU	6.74	1,739	0.4	24:76	25	78	103	0.51	63:37	83	49	132
2.	SPR 2021-009	General Office Building	710	31.9	TSF	10.84	346	1.52	88:12	43	6	49	1.44	17:83	8	38	46
3.	TM 6284	Single-Family Detached Housing	210	74	DU	9.43	698	0.7	26:74	14	38	52	0.94	63:37	44	26	70
4.	SPR 2021-009	Medical-Dental Office Building	720	90.0	TSF	36	3,240	3.1	79:21	220	59	279	3.93	30:70	106	248	354

Results	Daily Volume	AM Peak Hour	In	Out	Total	PM Peak Hour	In	Out	Total
Net Total	**6,023**		**302**	**181**	**483**		**241**	**361**	**602**

1: Trip generation rates are from the ITE Trip Generation Manual (11th Edition, 2021).
2: STU = Students.

6.3 NEAR-TERM TRAFFIC VOLUMES

NT volumes include ambient traffic plus the addition of traffic projected to be generated by the proposed project and nearby cumulative projects. Since the proposed project's full student capacity is expected to be reached by 2031, *NT* volumes include a growth rate of 2% per year for seven years, applied to existing volumes. The resulting volumes were added to volumes generated by both the proposed project and the City's cumulative projects. **Exhibit 9** shows *NT* AM and PM peak hour volumes at each study intersection.

NT Volumes = (Existing (2024) Counts * 1.02^7) + Cumulative + Project

6.4 NEAR-TERM INTERSECTION LEVEL OF SERVICE ANALYSIS

The AM and PM peak hour intersection analysis of the *NT* traffic conditions is shown in **Table 8**. Calculations are based on the current geometrics at the study area intersections. HCM analysis reports are provided in **Appendix D.**

Table 8:
Intersection Analysis – Near-Term Traffic Conditions

Intersection			Control Type[1]	Target LOS	Peak Hour	NT Conditions	
						Delay[2]	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	36.1	D
					PM	38.9	D
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	36.9	D
					PM	49.5	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	29.4	D
					PM	12.0	B

1: TWSC = Two-Way Stop-Control.
2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 8**, the study intersections under *NT* traffic conditions are projected to continue to operate at an acceptable LOS during the AM and PM peak hours.

Legend:

Project Site

X Approximate Cumulative Project Locations

Exhibit 8: Cumulative Project Location

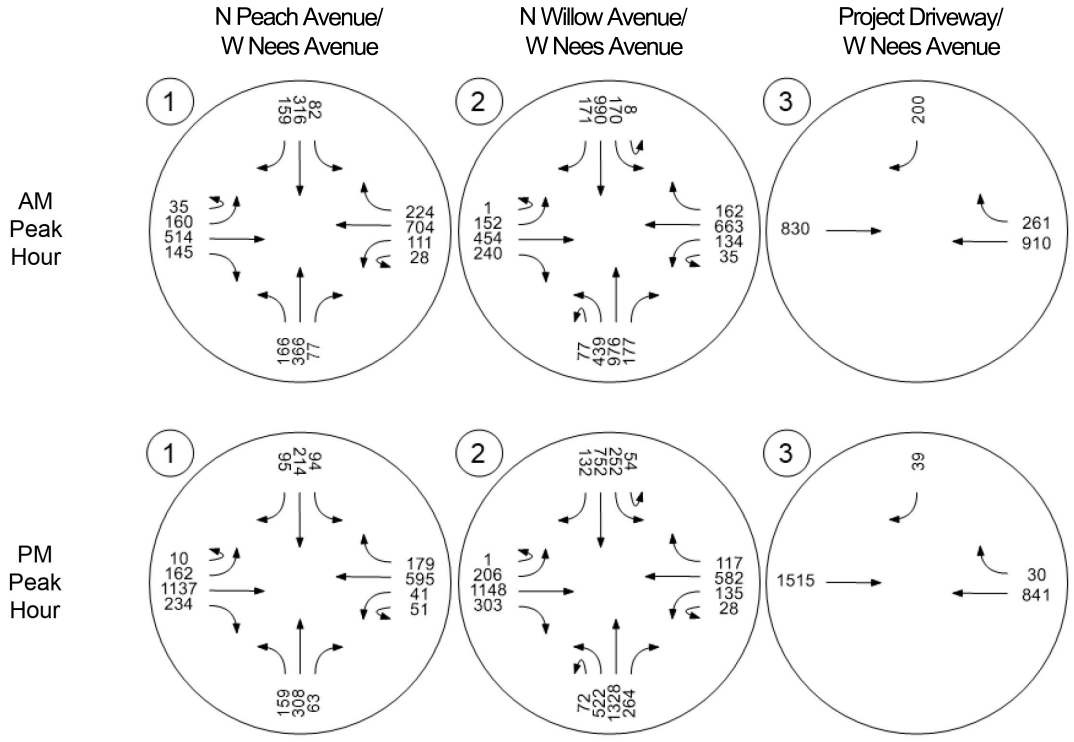


Exhibit 9: Near-Term AM and PM Peak Hour Volume

7.0 LONG-TERM (HORIZON YEAR 2040) TRAFFIC CONDITIONS

The *Long-Term (LT)* traffic conditions analysis is intended to identify the City of Clovis horizon year, or year 2040, traffic conditions in the study area with the addition of the proposed project.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *LT* traffic conditions scenario are consistent with those previously shown in **Exhibit 4**.

7.2 LONG-TERM TRAFFIC VOLUMES

LT volumes are *Existing* volumes projected to the City of Clovis horizon year, 2040, plus the anticipated trip volumes generated by the proposed project. An annual growth rate of 1.16% was derived using the projected population of the City of Clovis through 2040 as documented in the Fresno County Council of Governments 2050 Growth Projections (May 2017). This growth rate was applied to the *Existing* traffic volumes for a sixteen-year period beginning with the year 2024 through 2040.

Exhibit 10 shows *LT* AM and PM peak hour volumes at the study intersections.

LT Volumes = (Existing (2024) Counts * 1.0116^16) + Proposed Project

7.3 LONG-TERM INTERSECTION LEVEL OF SERVICE ANALYSIS

The AM and PM peak hour intersection analysis for *LT* traffic conditions is shown in **Table 9**. HCM analysis reports are provided in **Appendix D.**

Table 9:
Intersection Analysis – Long-Term Traffic Conditions

Intersection			Control Type[1]	Target LOS	Peak Hour	LT Conditions	
						Delay[2]	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	39.3	D
					PM	41.6	D
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	37.4	D
					PM	53.3	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	33.3	D
					PM	12.2	B

1: TWSC = Two-Way Stop-Control.
2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 9**, the study intersections under *LT* traffic conditions are projected to continue to operate at an acceptable LOS during the AM and PM peak hours.

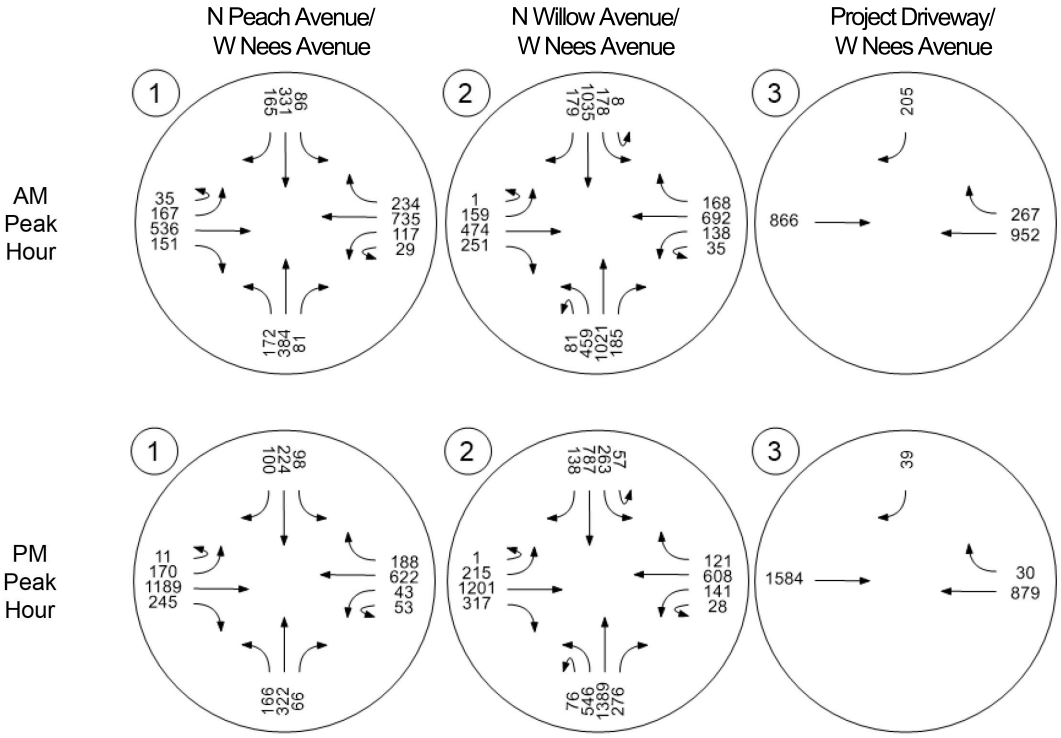


Exhibit 10: Long-Term AM and PM Peak Hour Volume

APPENDIX

Appendix A: Glossary of Terminology
Appendix B: Scoping Agreement and City Documents
Appendix C: Existing Traffic Counts
Appendix D: HCM Analysis Sheets

APPENDIX A

GLOSSARY OF TERMINOLOGY

Glossary of Terminology

ACRONYMS:

ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
LOS	Level of Service
TSF	Thousand Square Feet

TERMS

AVERAGE DAILY TRAFFIC – *The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.*

CAPACITY – T*he maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.*

CORNER SIGHT DISTANCE – *The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.*

CYCLE LENGTH – *The time period in seconds required for a traffic signal to complete one full cycle of indications.*

DELAY – *The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.*

FREE FLOW – *Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.*

LEVEL OF SERVICE – *A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.*

PEAK HOUR – *The 60 consecutive minutes with the highest number of vehicles.*

QUEUE LENGTH – *The length of vehicle queue, typically expressed in feet, waiting at a service area such as a Traffic signal, stop sign, or access gate.*

SIGHT DISTANCE – *The continuous length of roadway visible to a driver or roadway user.*

SIGNAL CYCLE – *The time period in seconds required for one complete sequence of signal indications.*

SIGNAL PHASE – *The part of the signal cycle allocated to one or more traffic movements.*

STARTING DELAY – *The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.*

TRAFFIC-ACTUATED SIGNAL – *A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.*

TRIP – *The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.*

TRIP GENERATION RATE – *The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.*

TURNING RADIUS – *The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.*

APPENDIX B

SCOPING AGREEMENT AND CITY DOCUMENTS

Scoping Agreement for Traffic Impact Analysis

This form acknowledges the requirements for the traffic impact analysis of the following project. The analysis will follow the local jurisdiction's traffic impact analysis guidelines.

Project Name:	547 West Nees Avenue (CUP1995-09A4)
Project Address:	547 West Nees Avenue, City of Clovis, CA
Project Description:	Additional classrooms for a private school to accommodate 240 additional students

	Consultant	Developer
Name:	TJW Engineering	SALEM ENGINEERING GROUP, INC.
Address:	9841 Irvine Center Drive, Suite 200	8711 Monroe Court, Suite A
	Irvine, CA 92618	Rancho Cucamonga, CA 91730
Telephone:	949-878-3509	909-489-8515
Email:		maria@salem.net

Trip Generation Source: ITE Trip Generation Manual, 11th Edition (2021)

Current GP Land Use:	L - low density residential (2.1-4.0 DU/AC)	Proposed Land Use:	
Current Zoning:	R-1-7500 (single-family residential 7500 sq ft)	Proposed Zoning:	

Is the project screened from LOS analysis? [ ] Yes [X] No

Justification:	Per the *City of Clovis Transportation Impact Analysis Guidelines* (September 15, 2022), a LOS analysis is required as the proposed project is expected to generate more than 100 peak hour trips.

Is the project screened from VMT analysis? [X] Yes [ ] No

Justification:	Per the *City of Clovis Transportation Impact Analysis Guidelines* (September 15, 2022), projects that generate or attract fewer than 500 vehicle trips per day are presumed to cause a less-than-significant VMT impact.

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				136	106	242
PM Trips				29	33	62
Daily						484

Internal Trip Capture: [ ] Yes [X] No _____ % Trip Discount

Pass-By Allowance: [ ] Yes [X] No _____ % Trip Discount

Trip Distribution: See attached exhibit

Project Build-out Year: 2031 Annual Ambient Growth Rate: 2%

Study Intersections:

1. N. Peach Ave./W. Nees Ave.
2. N. Willow Ave./W. Nees Ave.
3. Project Driveway/W. Nees Ave.
4.
5.
6.
7.
8.
9.
10.

Study Roadway Segments:

1.
2.
3.
4.

Analysis Scenarios:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Near-Term Analysis (Existing + Ambient + Cumulative + Project)
4. Long-Term Analysis (Horizon Year 2040 + Project)
5.

Other Jurisdiction Analyzed? [ ] Yes [X] No Name of Jurisdiction:

Date of Traffic Counts: New counts will be collected

Additional Items to be Addressed:	Cumulative project list to be provided by City.

Additional Notes:	Trip generation based on ITE code 530. However, daily trip rates for ITE code 530 have a small sample size. As a school land use, trips are anticipated to include school drop off and pick up. Therefore, daily trips are assumed to be twice the AM trips.

Authorizations:

David Chew, PTP

Consultant's Representative	City (Approved By)
	
Signature	Signature
July 22, 2024	
Date	Date

Table 1

Project Trip Generation

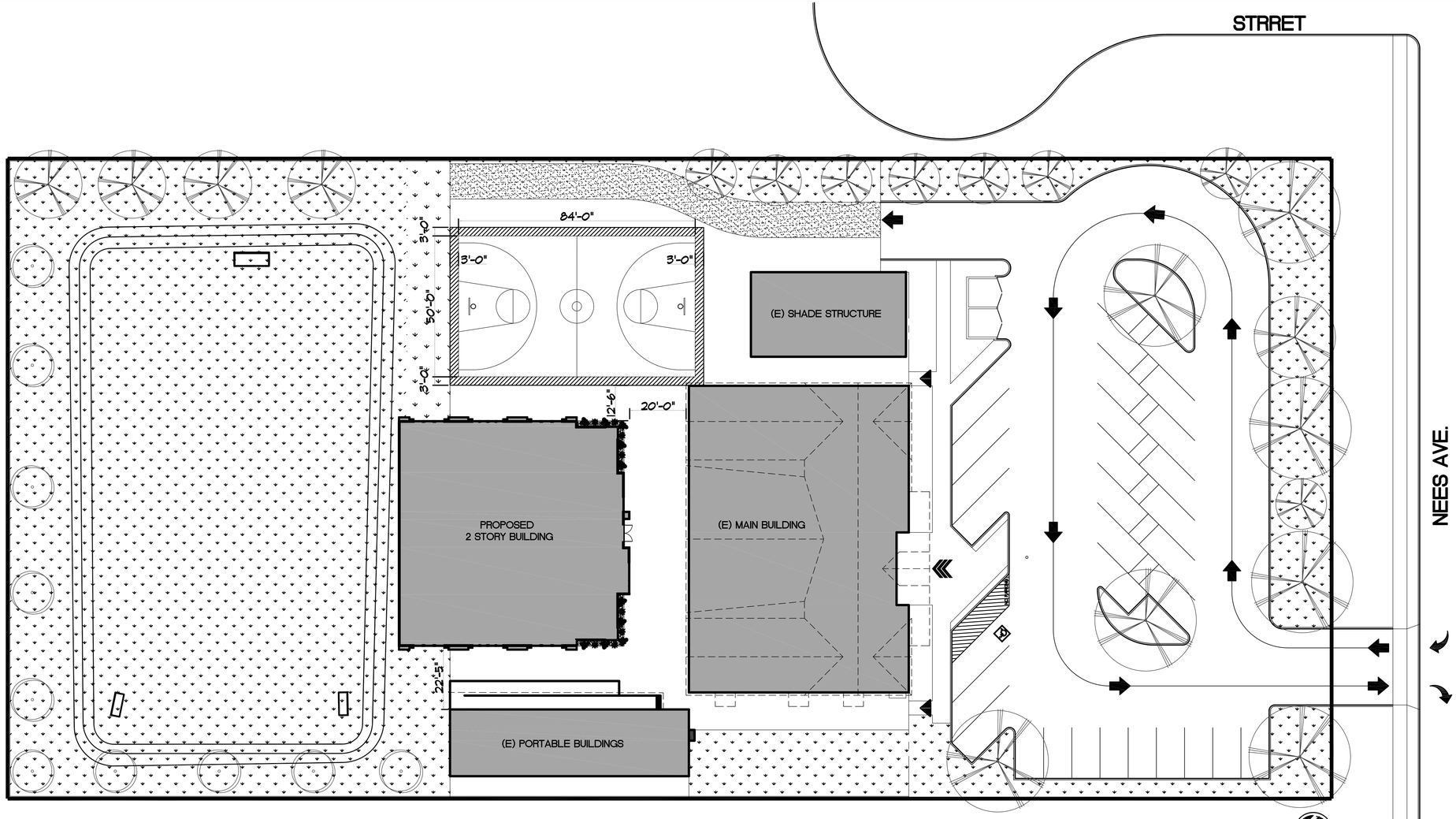
Proposed Land Use[1]	ITE Code	Qty	Unit[2]	Daily		AM Peak Hour					PM Peak Hour				
				Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
								In	Out	Total			In	Out	Total
Private School (K-8)	530	240	STU	2.02	484	1.01	56:44	136	106	242	0.26	46:54	29	33	62

1: Trip generation rates from ITE Trip Generation (11th Edition, 2021); Daily trip rate sample size too small, daily trips are assumed to be twice the AM peak volume as land use includes drop off and pick up trips.

2: STU = Students.

Trip Distribution

574 West Nees Avenue
CUP-1995-09A4
SEG-24-001



SITE PLAN 1

SCALE: 1" = 20'-0"

Project Location

VICINITY MAP

SCALE: N.T.S.

LEGEND

	PROPERTY LINE
	LOT LINE
	CENTER LINE
	SANITARY SEWER
	(P) CURB AND GUTTER
	CITY WATER
	(P) STREETLIGHT
	(P) SIDEWALK
	(P) PERMANENT PAVING

GENERAL NOTES

1. 1. ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.
2. 2. REPAIR ALL DAMAGE AND/OR OFF-GRADE CONCRETE STREET IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT ENGINEER PRIOR TO OCCUPANCY.
3. 3. TWO WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444.
4. UNDERGROUND ALL EXISTING OFFSITE OVERHEAD UTILITIES WITHIN THE LIMITS OF THIS SITE/MAP AS PER FMC SECTION 15-4114.
5. SUBMIT ENGINEERED STREET CONSTRUCTION PLANS TO PUBLIC WORKS DEPARTMENT, TRAFFIC AND ENGINNERING SERVICES.
6. SUBMIT STREET LIGHTING PLANS TO PUBLIC WORKS DEPARTMENT, TRAFFIC AND ENGINEERING SERVICES.

PARKING SUMMARY

STALL TYPE	QTY. PROV'D.
STANDARD - 18'-0" X 9'-0"	30
ACCESSIBLE 18'-0" x 9'-0"	1
TOTAL	31

PROJECT INFORMATION

Use: NEW 2 STORY CLASSROOM BUILDING

Project Address: 547 W. NEES AVE.
CLOVIS, CA. 93611

A.P.N.: . 560-020-06
ZONING.:

Owner: MUSLIM SOCIETY OF CENTRAL CALIFORNIA
547 W. NEES AVE.
Clovis, CA 93611

Applicable Codes:

Building: 2022 California Building Code (CBC)
Plumbing: 2022 California Plumbing Code (CPC)
Mechanical: 2022 California Mechanical Code (CMC)
Electrical: 2022 California Electrical Code (CEC)
2022 California Fire Code (CFC)
Accessibility: 2022 California Building Code
Energy: (Title 24, Part 2)
2022 California Energy Code (Title 24, Part 6) and
2022 Nonresidential (CEC) Energy Standards,
Effective July 1, 2014
2022 California Green Building Standards
(CEC PART 6) AND THE 2022 FIRE CODE WITH

PLANS PREPARED FOR

MUSLIM SOCIETY OF CENTRAL CALIFORNIA
547 W. NEES AVE.
CLOVIS, CA. 93611

PROPOSED PROJECT

NEW 2 STORY CLASSROOM BLDG.
FOR:
VALLEY CRESCENT SCHOOL
547 W. NEES AVE.
CLOVIS, CA. 93611

STATUS

ISSUE

PROJECT NO.:	2023-8140
DRAWN BY:	M. EASTMAN
CHECKED BY:	M. EASTMAN
APPROVED BY:	N.SALEM
SCALE:	

ENGINEER OF RECORD

PLATINUM
Engineering Solutions, Inc.
Commercial · Industrial · Residential · Towers
10648 N. HWY 41
Madera, CA 93638-9469
Tel: (559) 439-0500
Fax: (559) 433-6433
www.Platinumengineering.com

STAMP

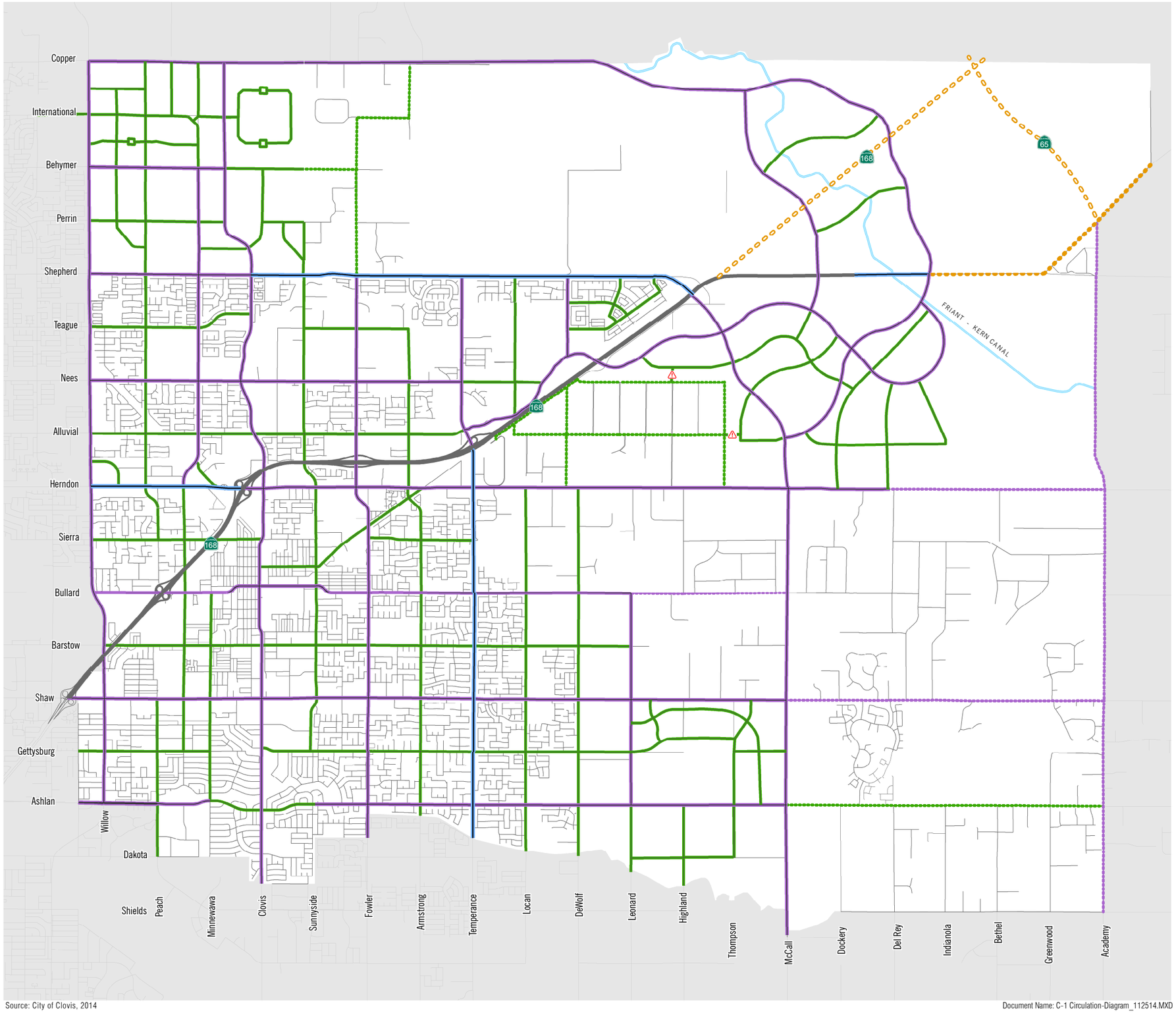
SHEET TITLE

SITE PLAN

SHEET

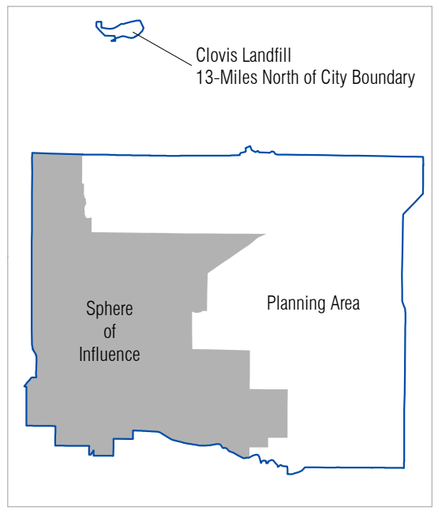
A1.1

Figure C-1
Circulation Diagram



Roadway Classification
- Freeway
- Conceptual 2-4 Lane State Highway
- State Highway
- Expressway
- Arterial
- Rural Arterial
- Collector
- Rural Collector
- Local

⚠ Emergency Access Only



CLOVIS GENERAL PLAN

CLO - 14.0 12/9/2014

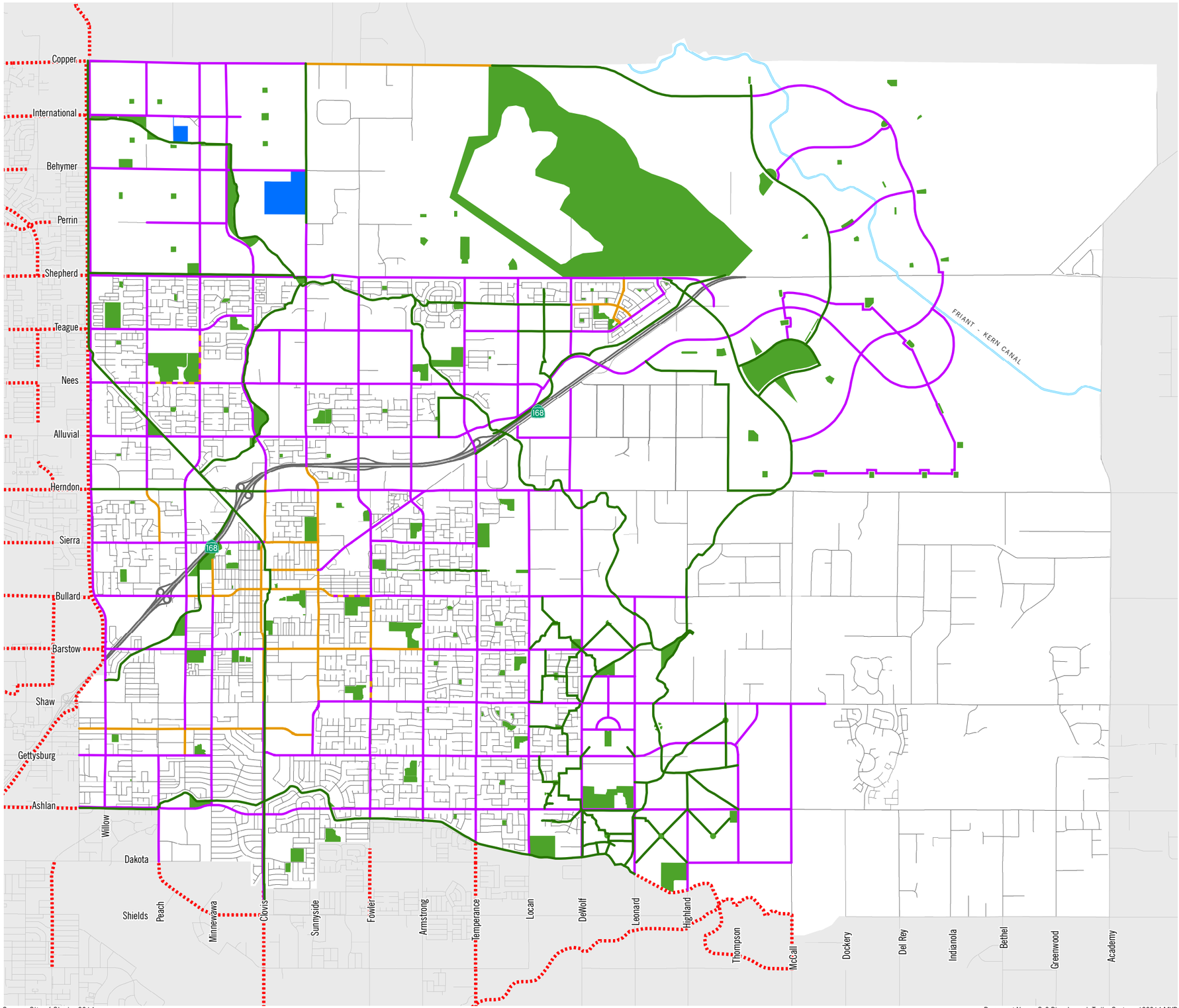
0 0.5 1 Miles

Source: City of Clovis, 2014

Document Name: C-1 Circulation-Diagram_112514.MXD

PLACEWORK

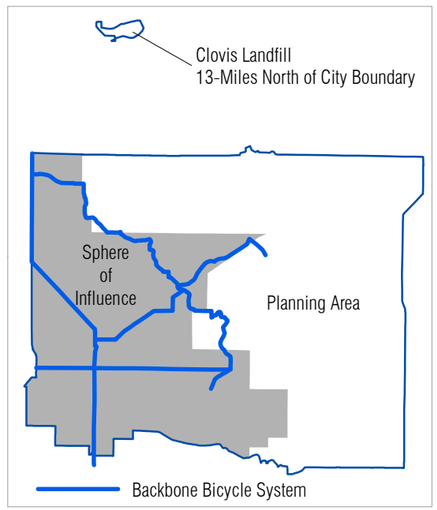
Figure C-2
Bicycle and Trails System



Class I - Multipurpose Trail
Class II - Bike Lane
Class III - Bike Route
Class II or III - Bikeway

City of Fresno - Existing & Proposed Trail System

Park/Recreation Facility
Basin - Open Space



Source: City of Clovis, 2014

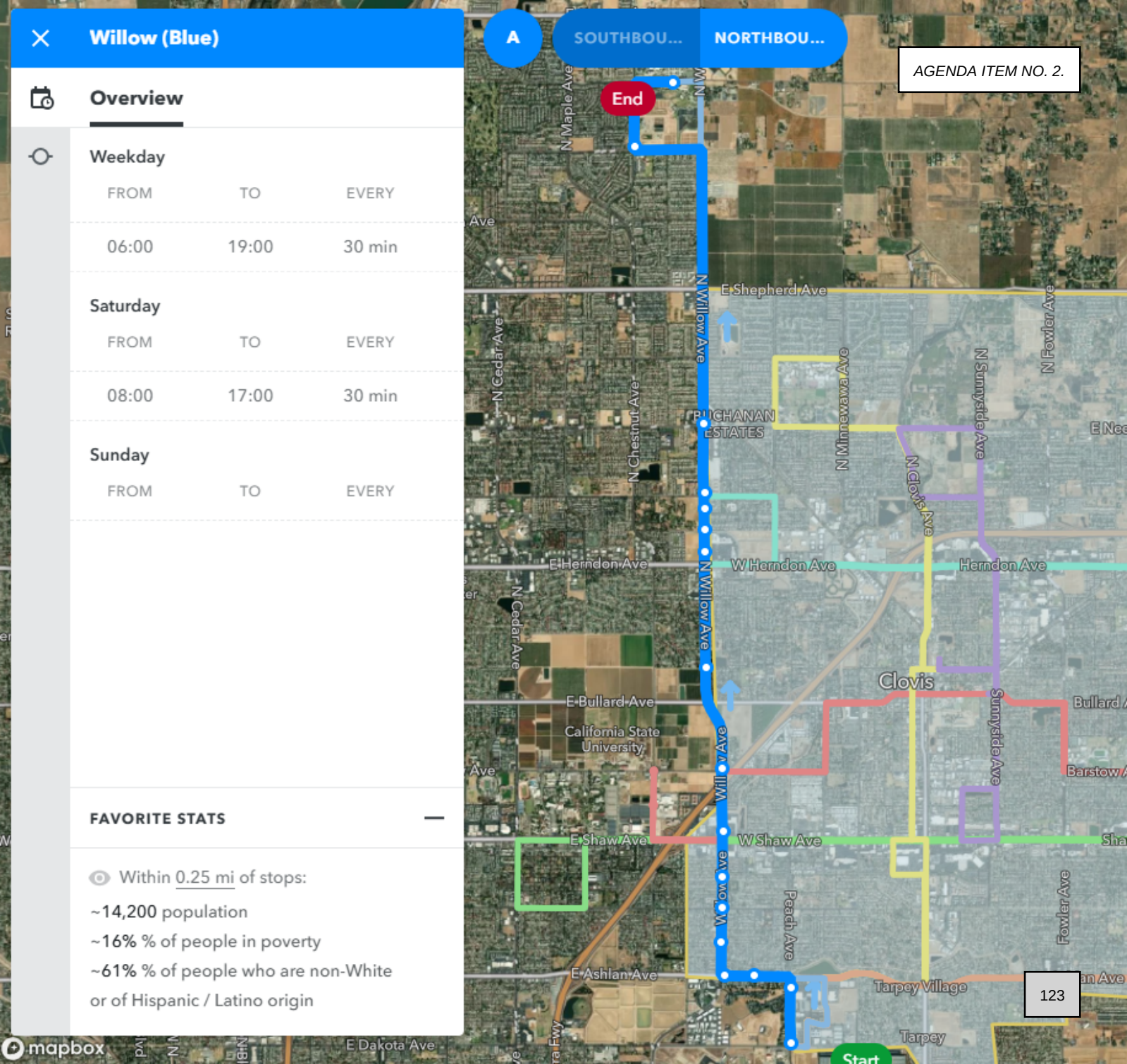
Document Name: C-2 Bicycle_and_Trails_System_120814.MXD

CLOVIS GENERAL PLAN

CLO - 14.0 12/8/2014

0 0.5 1 Miles

PLACEWORKS


Willow (Blue)
A
SOUTHBOU...
NORTHBOU...
End
Start
Overview
Weekday
FROM TO EVERY
06:00 19:00 30 min
Saturday
FROM TO EVERY
08:00 17:00 30 min
Sunday
FROM TO EVERY
FAVORITE STATS
Within 0.25 mi of stops:
~14,200 population
~16% % of people in poverty
~61% % of people who are non-White or of Hispanic / Latino origin
N Maple Ave
N Willow Ave
E Shepherd Ave
N Cedar Ave
N Chestnut Ave
N Minnewawa Ave
N Clovis Ave
N Sunnyside Ave
N Fowler Ave
BUCHANAN ESTATES
E Herndon Ave
W Herndon Ave
Herndon Ave
Clovis
E Bullard Ave
California State University
Sunnyside Ave
W Shaw Ave
E Shaw Ave
Peach Ave
Fowler Ave
E Ashlan Ave
Tarpey Village
Tarpey
E Dakota Ave
mapbox

Clovis Ave (Yellow)

A | NORTHBOU... | SOUTHBOU...

Overview

Weekday

FROM	TO	EVERY
06:00	18:00	30 min

Saturday

FROM	TO	EVERY
08:00	17:00	30 min

Sunday

FROM	TO	EVERY

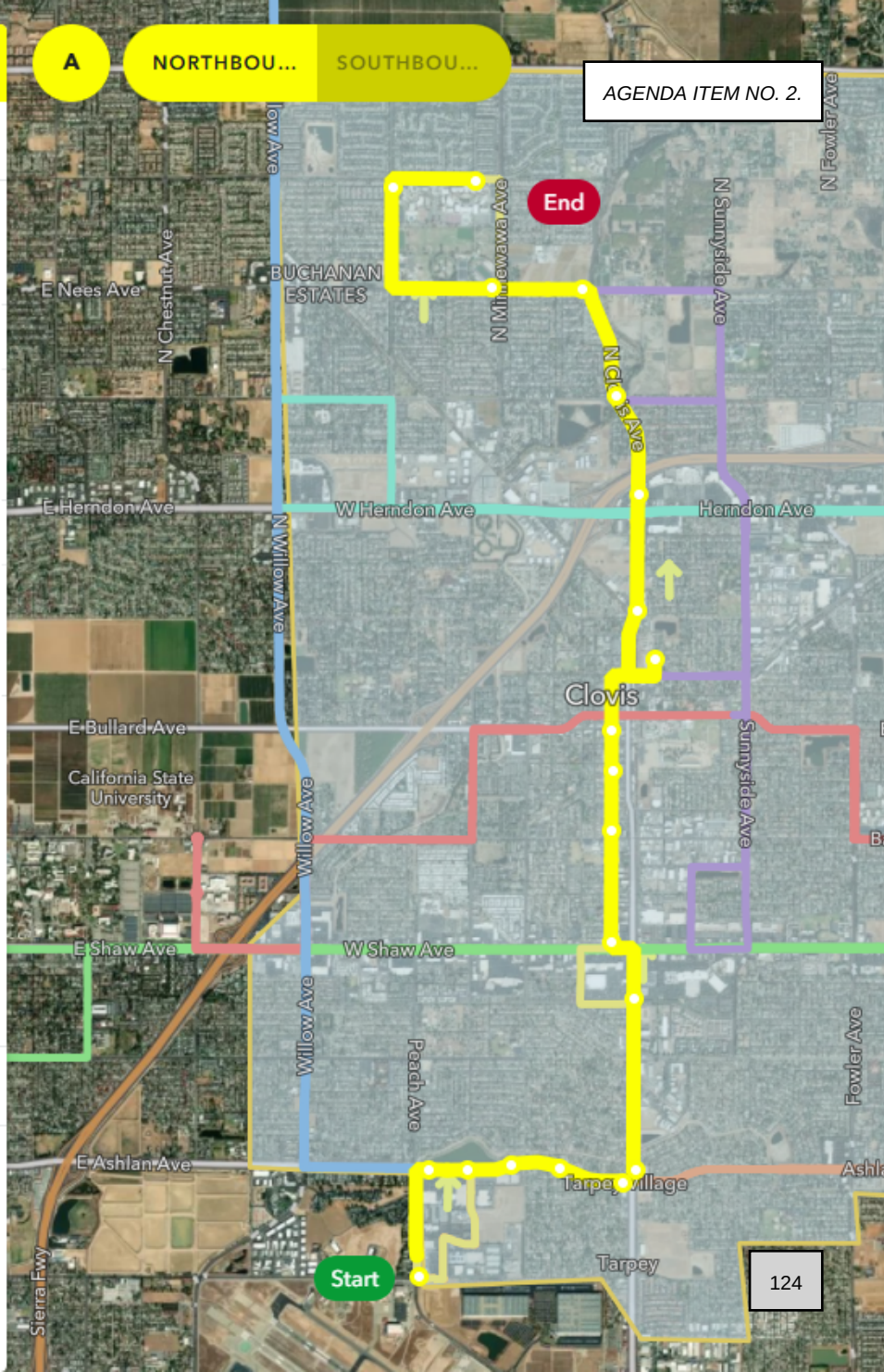
FAVORITE STATS

Within 0.25 mi of stops:

~13,400 population

~12% % of people in poverty

~58% % of people who are non-White or of Hispanic / Latino origin



APPENDIX C

EXISTING TRAFFIC COUNTS

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

Groups Printed- Total Volume

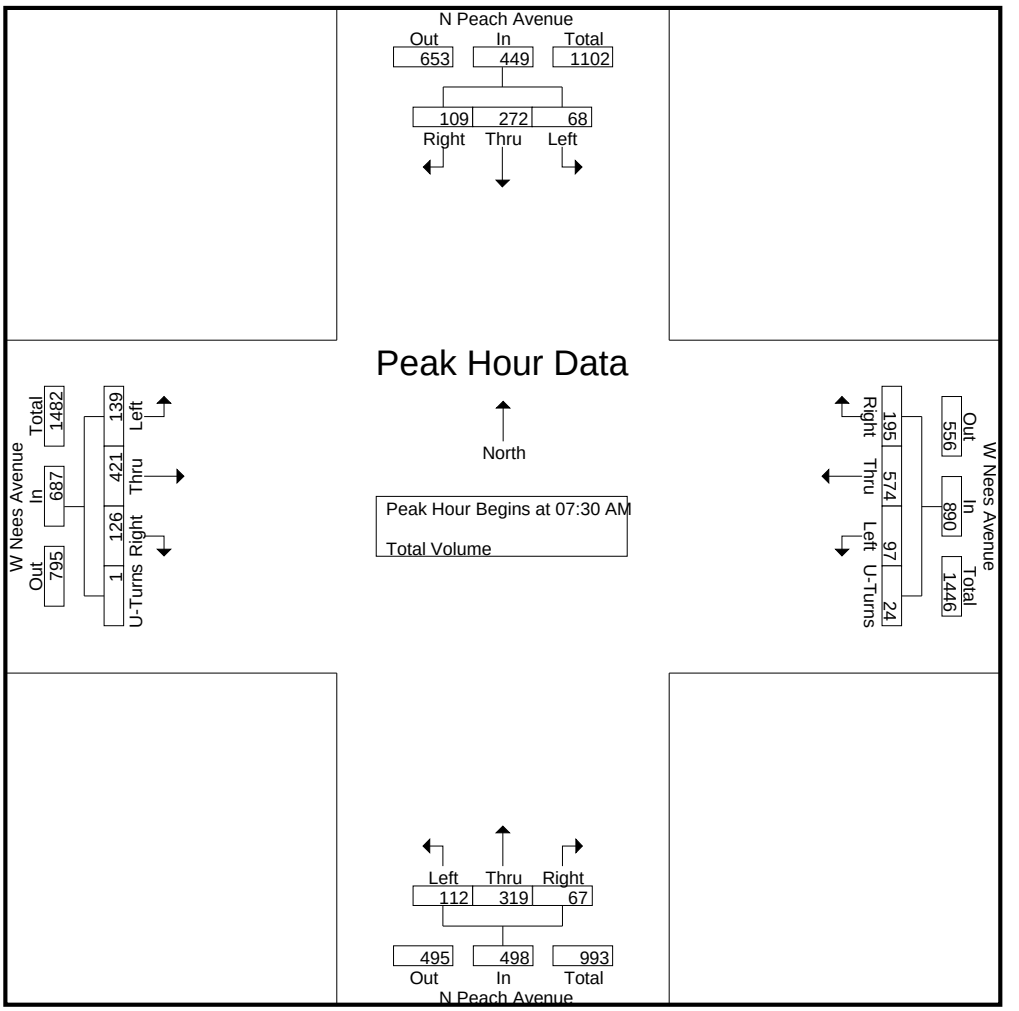
	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	4	48	9	61	12	67	4	2	85	12	23	4	39	7	69	14	0	90	275
07:15 AM	6	56	27	89	8	82	26	3	119	20	48	4	72	25	65	17	0	107	387
07:30 AM	13	50	25	88	15	140	37	6	198	23	59	15	97	16	98	26	0	140	523
07:45 AM	18	69	21	108	25	165	49	9	248	34	90	21	145	42	109	35	0	186	687
Total	41	223	82	346	60	454	116	20	650	89	220	44	353	90	341	92	0	523	1872
08:00 AM	20	69	40	129	23	129	59	6	217	39	97	23	159	51	120	34	1	206	711
08:15 AM	17	84	23	124	34	140	50	3	227	16	73	8	97	30	94	31	0	155	603
08:30 AM	14	51	19	84	5	106	21	1	133	14	36	6	56	19	79	32	0	130	403
08:45 AM	8	33	15	56	1	79	8	0	88	11	24	0	35	4	90	21	1	116	295
Total	59	237	97	393	63	454	138	10	665	80	230	37	347	104	383	118	2	607	2012
Grand Total	100	460	179	739	123	908	254	30	1315	169	450	81	700	194	724	210	2	1130	3884
Apprch %	13.5	62.2	24.2		9.4	69	19.3	2.3		24.1	64.3	11.6		17.2	64.1	18.6	0.2		
Total %	2.6	11.8	4.6	19	3.2	23.4	6.5	0.8	33.9	4.4	11.6	2.1	18	5	18.6	5.4	0.1	29.1	

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	13	50	25	88	15	140	37	6	198	23	59	15	97	16	98	26	0	140	523
07:45 AM	18	69	21	108	25	**165**	49	**9**	**248**	34	90	21	145	42	109	**35**	0	186	687
08:00 AM	**20**	69	**40**	**129**	23	129	**59**	6	217	**39**	**97**	**23**	**159**	**51**	**120**	34	**1**	**206**	**711**
08:15 AM	17	**84**	23	124	**34**	140	50	3	227	16	73	8	97	30	94	31	0	155	603
Total Volume	68	272	109	449	97	574	195	24	890	112	319	67	498	139	421	126	1	687	2524
% App. Total	15.1	60.6	24.3		10.9	64.5	21.9	2.7		22.5	64.1	13.5		20.2	61.3	18.3	0.1		
PHF	.850	.810	.681	.870	.713	.870	.826	.667	.897	.718	.822	.728	.783	.681	.877	.900	.250	.834	.887

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM					07:30 AM				07:30 AM				
+0 mins.	13	50	25	88	15	140	37	6	198	23	59	15	97	16	98	26	0	140
+15 mins.	18	69	21	108	25	**165**	49	**9**	**248**	34	90	21	145	42	109	**35**	0	186
+30 mins.	**20**	69	**40**	**129**	23	129	**59**	6	217	**39**	**97**	**23**	**159**	**51**	**120**	34	**1**	**206**
+45 mins.	17	**84**	23	124	**34**	140	50	3	227	16	73	8	97	30	94	31	0	155
Total Volume	68	272	109	449	97	574	195	24	890	112	319	67	498	139	421	126	1	687
% App. Total	15.1	60.6	24.3		10.9	64.5	21.9	2.7		22.5	64.1	13.5		20.2	61.3	18.3	0.1	
PHF	.850	.810	.681	.870	.713	.870	.826	.667	.897	.718	.822	.728	.783	.681	.877	.900	.250	.834

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City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

Groups Printed- Total Volume

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	16	44	24	84	24	105	22	4	155	21	44	8	73	25	184	47	1	257	569
04:15 PM	13	42	19	74	5	123	24	3	155	28	57	10	95	25	197	32	1	255	579
04:30 PM	16	30	27	73	9	103	22	2	136	25	54	2	81	29	221	37	1	288	578
04:45 PM	14	42	17	73	5	129	18	5	157	23	47	5	75	36	199	39	3	277	582
Total	59	158	87	304	43	460	86	14	603	97	202	25	324	115	801	155	6	1077	2308
05:00 PM	16	38	22	76	8	122	27	5	162	27	60	6	93	26	233	49	2	310	641
05:15 PM	14	30	21	65	9	119	43	2	173	44	82	17	143	31	248	44	0	323	704
05:30 PM	18	59	14	91	9	125	47	12	193	27	66	15	108	38	257	48	0	343	735
05:45 PM	30	56	20	106	10	137	39	25	211	30	60	17	107	46	237	63	1	347	771
Total	78	183	77	338	36	503	156	44	739	128	268	55	451	141	975	204	3	1323	2851
Grand Total	137	341	164	642	79	963	242	58	1342	225	470	80	775	256	1776	359	9	2400	5159
Apprch %	21.3	53.1	25.5		5.9	71.8	18	4.3		29	60.6	10.3		10.7	74	15	0.4		
Total %	2.7	6.6	3.2	12.4	1.5	18.7	4.7	1.1	26	4.4	9.1	1.6	15	5	34.4	7	0.2	46.5	

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	16	38	**22**	76	8	122	27	5	162	27	60	6	93	26	233	49	**2**	310	641
05:15 PM	14	30	21	65	9	119	43	2	173	**44**	**82**	**17**	**143**	31	248	44	0	323	704
05:30 PM	18	**59**	14	91	9	125	**47**	12	193	27	66	15	108	38	**257**	48	0	343	735
05:45 PM	**30**	56	20	**106**	**10**	**137**	39	**25**	**211**	30	60	17	107	**46**	237	**63**	1	**347**	**771**
Total Volume	78	183	77	338	36	503	156	44	739	128	268	55	451	141	975	204	3	1323	2851
% App. Total	23.1	54.1	22.8		4.9	68.1	21.1	6		28.4	59.4	12.2		10.7	73.7	15.4	0.2		
PHF	.650	.775	.875	.797	.900	.918	.830	.440	.876	.727	.817	.809	.788	.766	.948	.810	.375	.953	.924

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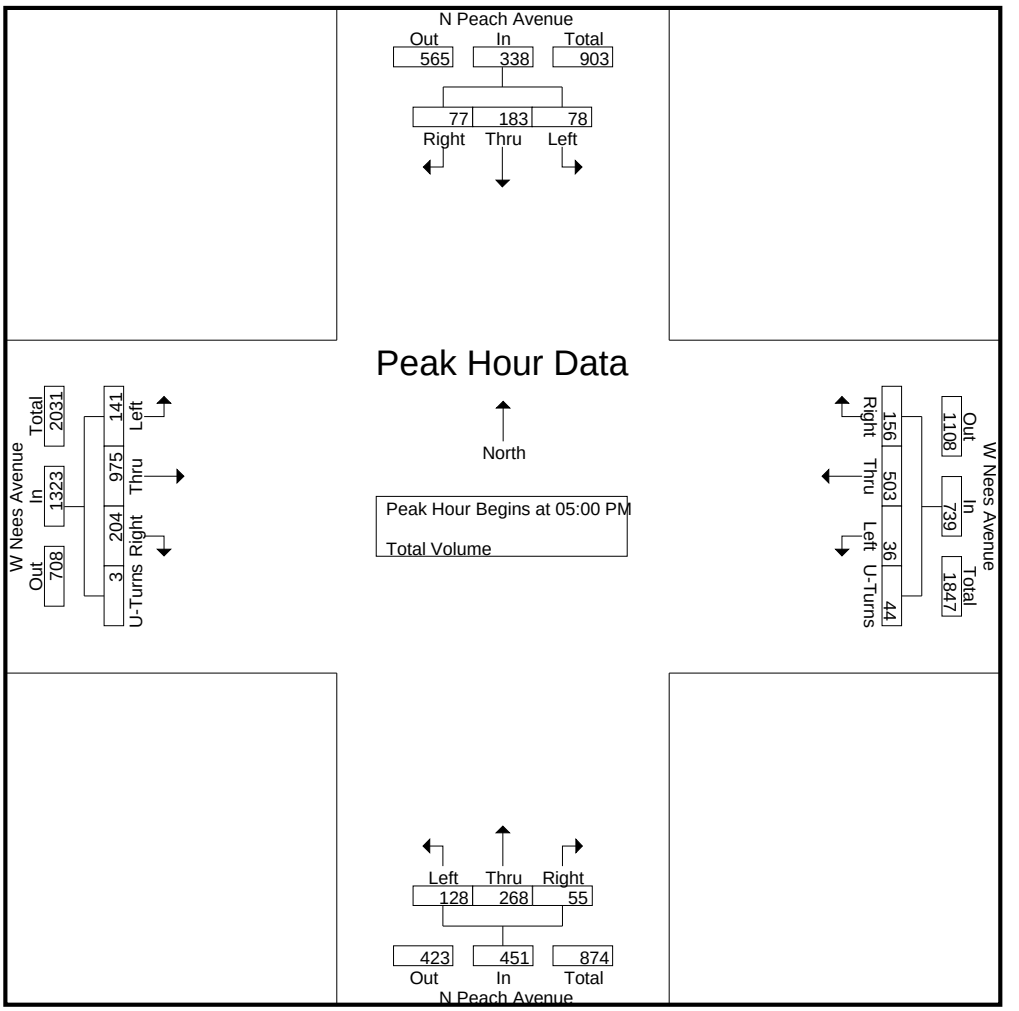
City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM					05:00 PM				05:00 PM				
+0 mins.	16	38	**22**	76	8	122	27	5	162	27	60	6	93	26	233	49	**2**	310
+15 mins.	14	30	21	65	9	119	43	2	173	**44**	**82**	**17**	**143**	31	248	44	0	323
+30 mins.	18	**59**	14	91	9	125	**47**	12	193	27	66	15	108	38	**257**	48	0	343
+45 mins.	**30**	56	20	**106**	**10**	**137**	39	**25**	**211**	30	60	17	107	**46**	237	**63**	1	**347**
Total Volume	78	183	77	338	36	503	156	44	739	128	268	55	451	141	975	204	3	1323
% App. Total	23.1	54.1	22.8		4.9	68.1	21.1	6		28.4	59.4	12.2		10.7	73.7	15.4	0.2	
PHF	.650	.775	.875	.797	.900	.918	.830	.440	.876	.727	.817	.809	.788	.766	.948	.810	.375	.953

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City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

Groups Printed- Total Volume

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	16	114	8	0	138	6	62	6	0	74	51	95	17	9	172	14	54	38	0	106	490
07:15 AM	25	171	27	0	223	10	79	11	1	101	60	110	31	15	216	28	65	40	0	133	673
07:30 AM	18	222	37	1	278	14	146	17	1	178	88	193	24	28	333	16	81	47	0	144	933
07:45 AM	53	221	40	3	317	27	157	21	5	210	84	170	43	7	304	42	110	59	0	211	1042
Total	112	728	112	4	956	57	444	55	7	563	283	568	115	59	1025	100	310	184	0	594	3138
08:00 AM	38	215	37	1	291	30	117	42	1	190	105	263	53	14	435	39	83	36	0	158	1074
08:15 AM	39	200	35	2	276	20	130	32	0	182	105	209	33	18	365	33	90	67	1	191	1014
08:30 AM	31	212	52	2	297	15	107	6	2	130	97	181	24	28	330	10	62	36	0	108	865
08:45 AM	20	144	25	4	193	13	85	7	1	106	87	118	24	17	246	20	86	60	0	166	711
Total	128	771	149	9	1057	78	439	87	4	608	394	771	134	77	1376	102	321	199	1	623	3664
Grand Total	240	1499	261	13	2013	135	883	142	11	1171	677	1339	249	136	2401	202	631	383	1	1217	6802
Apprch %	11.9	74.5	13	0.6		11.5	75.4	12.1	0.9		28.2	55.8	10.4	5.7		16.6	51.8	31.5	0.1		
Total %	3.5	22	3.8	0.2	29.6	2	13	2.1	0.2	17.2	10	19.7	3.7	2	35.3	3	9.3	5.6	0	17.9	

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	18	**222**	37	1	278	14	146	17	1	178	88	193	24	**28**	333	16	81	47	0	144	933
07:45 AM	**53**	221	**40**	**3**	**317**	27	**157**	21	**5**	**210**	84	170	43	7	304	**42**	**110**	59	0	**211**	1042
08:00 AM	38	215	37	1	291	**30**	117	**42**	1	190	**105**	**263**	**53**	14	**435**	39	83	36	0	158	**1074**
08:15 AM	39	200	35	2	276	20	130	32	0	182	105	209	33	18	365	33	90	**67**	**1**	191	1014
Total Volume	148	858	149	7	1162	91	550	112	7	760	382	835	153	67	1437	130	364	209	1	704	4063
% App. Total	12.7	73.8	12.8	0.6		12	72.4	14.7	0.9		26.6	58.1	10.6	4.7		18.5	51.7	29.7	0.1		
PHF	.698	.966	.931	.583	.916	.758	.876	.667	.350	.905	.910	.794	.722	.598	.826	.774	.827	.780	.250	.834	.946

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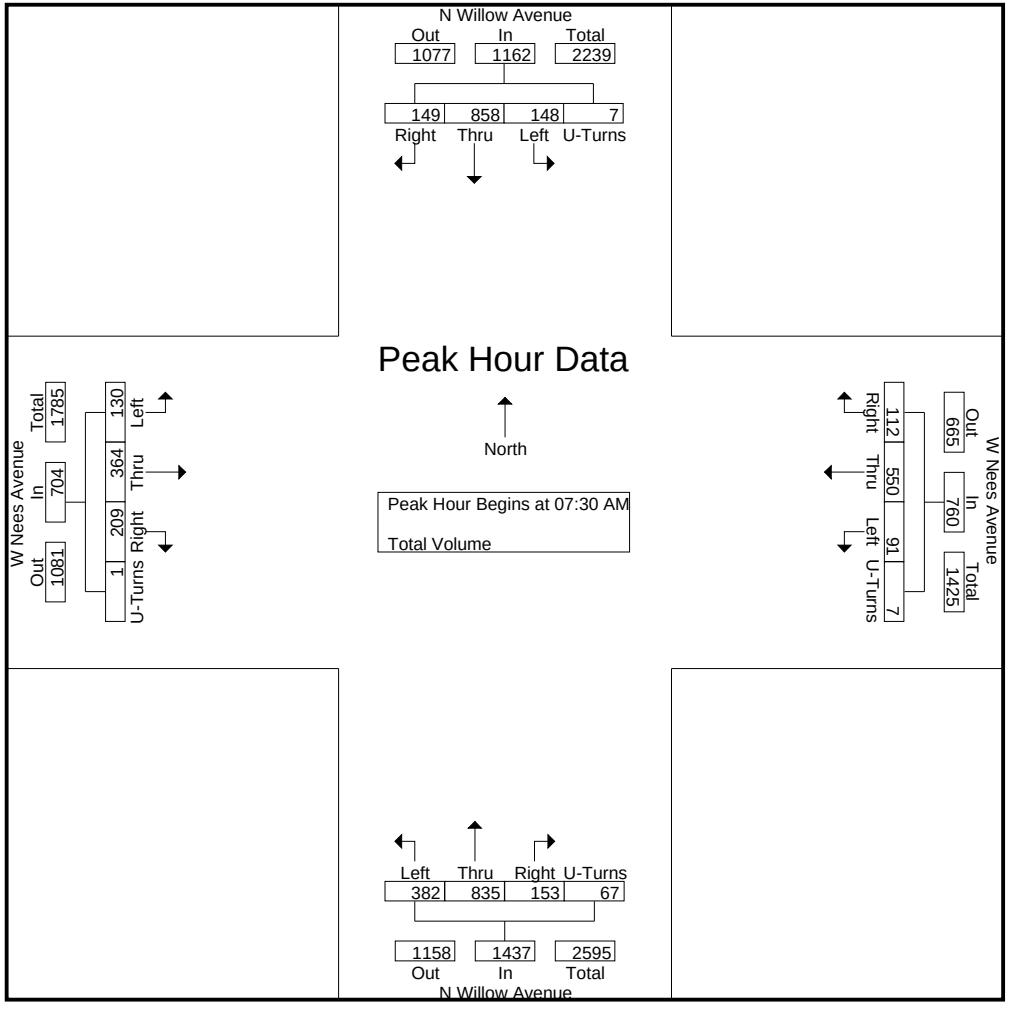
City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



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City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 3

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	**53**	**221**	40	**3**	**317**	14	146	17	1	178	88	193	24	**28**	333	16	81	47	0	144	
+15 mins.	38	215	37	1	291	27	**157**	21	**5**	**210**	84	170	43	7	304	**42**	**110**	59	0	**211**	
+30 mins.	39	200	35	2	276	**30**	117	**42**	1	190	**105**	**263**	**53**	14	**435**	39	83	36	0	158	
+45 mins.	31	212	**52**	2	297	20	130	32	0	182	105	209	33	18	365	33	90	**67**	**1**	191	
Total Volume	161	848	164	8	1181	91	550	112	7	760	382	835	153	67	1437	130	364	209	1	704	
% App. Total	13.6	71.8	13.9	0.7		12	72.4	14.7	0.9		26.6	58.1	10.6	4.7		18.5	51.7	29.7	0.1		
PHF	.759	.959	.788	.667	.931	.758	.876	.667	.350	.905	.910	.794	.722	.598	.826	.774	.827	.780	.250	.834	

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City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

Groups Printed- Total Volume

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	51	173	19	5	248	32	95	24	3	154	91	252	40	20	403	20	166	57	1	244	1049
04:15 PM	38	148	25	3	214	22	85	29	2	138	117	251	46	25	439	18	148	74	0	240	1031
04:30 PM	41	145	17	10	213	23	110	26	1	160	91	199	33	19	342	30	189	59	1	279	994
04:45 PM	47	158	20	19	244	20	112	20	2	154	121	268	43	24	456	40	191	59	0	290	1144
Total	177	624	81	37	919	97	402	99	8	606	420	970	162	88	1640	108	694	249	2	1053	4218
05:00 PM	41	160	22	5	228	33	129	17	7	186	102	261	51	19	433	42	236	74	1	353	1200
05:15 PM	50	170	35	12	267	26	123	21	3	173	111	279	56	18	464	39	212	75	0	326	1230
05:30 PM	59	163	27	17	266	20	113	16	6	155	132	330	63	14	539	37	262	48	0	347	1307
05:45 PM	69	158	31	13	271	31	130	32	1	194	109	266	58	12	445	57	277	67	0	401	1311
Total	219	651	115	47	1032	110	495	86	17	708	454	1136	228	63	1881	175	987	264	1	1427	5048
Grand Total	396	1275	196	84	1951	207	897	185	25	1314	874	2106	390	151	3521	283	1681	513	3	2480	9266
Apprch %	20.3	65.4	10	4.3		15.8	68.3	14.1	1.9		24.8	59.8	11.1	4.3		11.4	67.8	20.7	0.1		
Total %	4.3	13.8	2.1	0.9	21.1	2.2	9.7	2	0.3	14.2	9.4	22.7	4.2	1.6	38	3.1	18.1	5.5	0	26.8	

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	41	160	22	5	228	**33**	129	17	**7**	186	102	261	51	**19**	433	42	236	74	**1**	353	1200
05:15 PM	50	**170**	**35**	12	267	26	123	21	3	173	111	279	56	18	464	39	212	**75**	0	326	1230
05:30 PM	59	163	27	**17**	266	20	113	16	6	155	**132**	**330**	**63**	14	**539**	37	262	48	0	347	1307
05:45 PM	**69**	158	31	13	**271**	31	**130**	**32**	1	**194**	109	266	58	12	445	**57**	**277**	67	0	**401**	**1311**
Total Volume	219	651	115	47	1032	110	495	86	17	708	454	1136	228	63	1881	175	987	264	1	1427	5048
% App. Total	21.2	63.1	11.1	4.6		15.5	69.9	12.1	2.4		24.1	60.4	12.1	3.3		12.3	69.2	18.5	0.1		
PHF	.793	.957	.821	.691	.952	.833	.952	.672	.607	.912	.860	.861	.905	.829	.872	.768	.891	.880	.250	.890	.963

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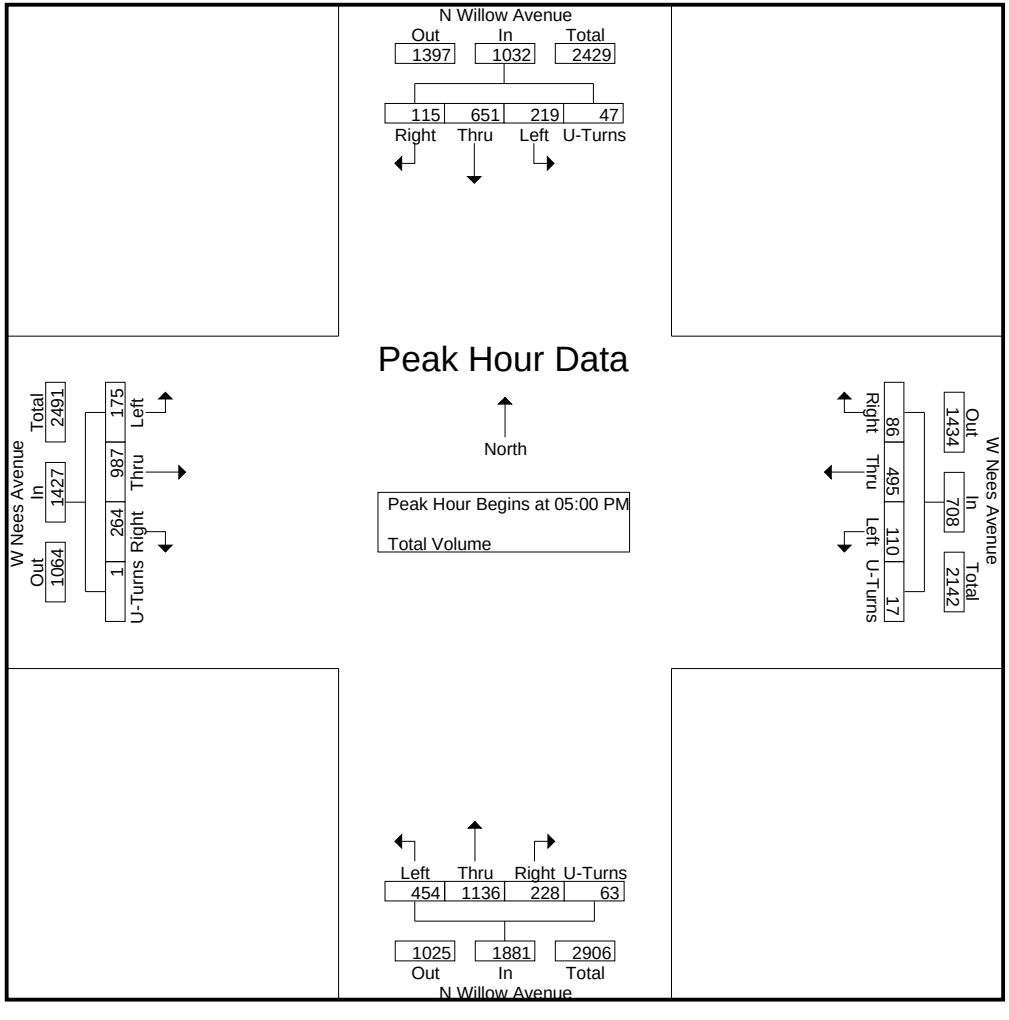
City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



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City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 3

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:00 PM					05:00 PM					04:45 PM					05:00 PM					
+0 mins.	41	160	22	5	228	**33**	129	17	**7**	186	121	268	43	**24**	456	42	236	74	**1**	353	
+15 mins.	50	**170**	**35**	12	267	26	123	21	3	173	102	261	51	19	433	39	212	**75**	0	326	
+30 mins.	59	163	27	**17**	266	20	113	16	6	155	111	279	56	18	464	37	262	48	0	347	
+45 mins.	**69**	158	31	13	**271**	31	**130**	**32**	1	**194**	**132**	**330**	**63**	14	**539**	**57**	**277**	67	0	**401**	
Total Volume	219	651	115	47	1032	110	495	86	17	708	466	1138	213	75	1892	175	987	264	1	1427	
% App. Total	21.2	63.1	11.1	4.6		15.5	69.9	12.1	2.4		24.6	60.1	11.3	4		12.3	69.2	18.5	0.1		
PHF	.793	.957	.821	.691	.952	.833	.952	.672	.607	.912	.883	.862	.845	.781	.878	.768	.891	.880	.250	.890	

Counts Unlimited, Inc.
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City of Clovis
N/S: Valley Crescent School Driveway
E/W: W Nees Avenue
Weather: Clear

File Name : 03_CVS_VCS DW_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

Groups Printed- Total Volume

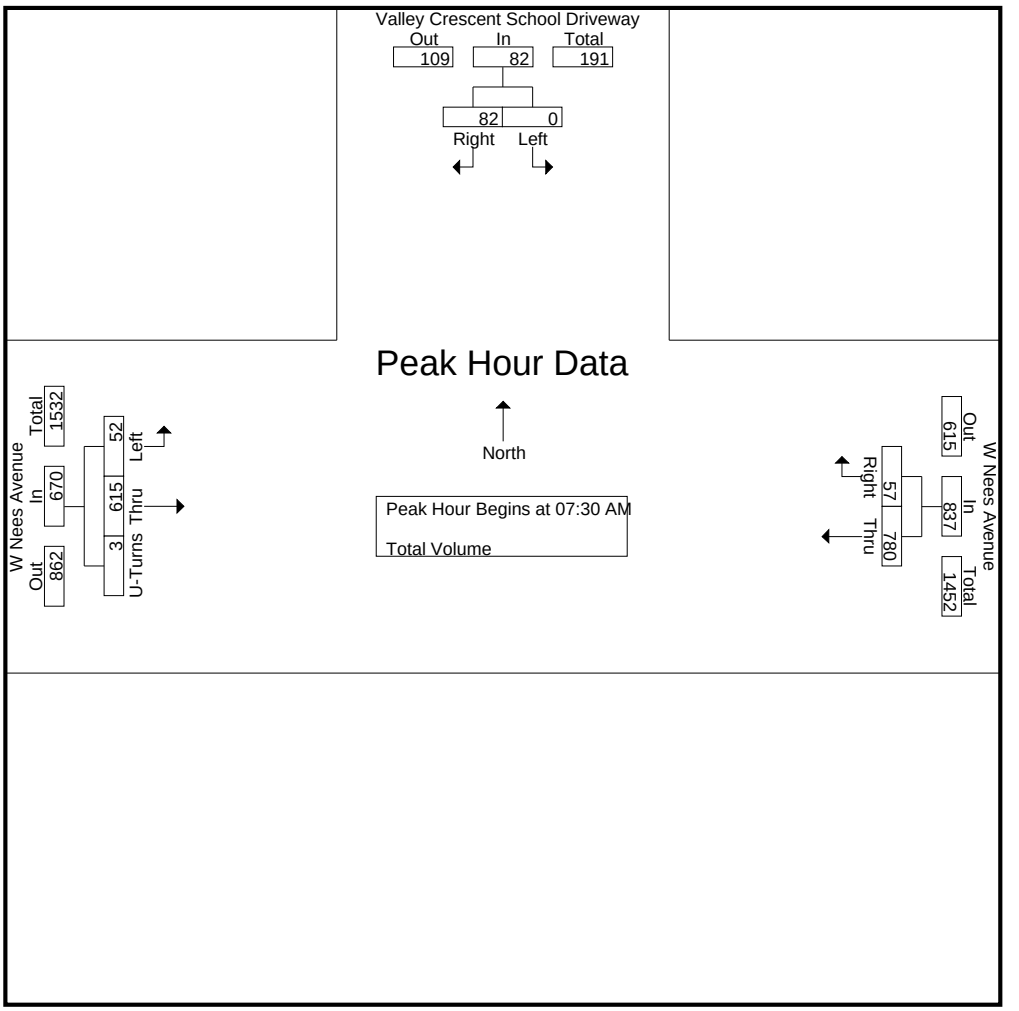
	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	0	0	0	84	1	85	1	91	0	92	177
07:15 AM	0	0	0	133	8	141	3	110	0	113	254
07:30 AM	0	5	5	187	10	197	5	110	0	115	317
07:45 AM	0	31	31	202	20	222	30	182	1	213	466
Total	0	36	36	606	39	645	39	493	1	533	1214
08:00 AM	0	43	43	200	25	225	16	175	2	193	461
08:15 AM	0	3	3	191	2	193	1	148	0	149	345
08:30 AM	0	0	0	141	0	141	0	131	0	131	272
08:45 AM	0	0	0	112	1	113	1	119	1	121	234
Total	0	46	46	644	28	672	18	573	3	594	1312
Grand Total	0	82	82	1250	67	1317	57	1066	4	1127	2526
Apprch %	0	100		94.9	5.1		5.1	94.6	0.4		
Total %	0	3.2	3.2	49.5	2.7	52.1	2.3	42.2	0.2	44.6	

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:30 AM											
07:30 AM	0	5	5	187	10	197	5	110	0	115	317
07:45 AM	0	31	31	**202**	20	222	**30**	**182**	1	**213**	**466**
08:00 AM	0	**43**	**43**	200	**25**	**225**	16	175	**2**	193	461
08:15 AM	0	3	3	191	2	193	1	148	0	149	345
Total Volume	0	82	82	780	57	837	52	615	3	670	1589
% App. Total	0	100		93.2	6.8		7.8	91.8	0.4		
PHF	.000	.477	.477	.965	.570	.930	.433	.845	.375	.786	.852

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Clovis
N/S: Valley Crescent School Driveway
E/W: W Nees Avenue
Weather: Clear

File Name : 03_CVS_VCS DW_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:45 AM			
+0 mins.	0	5	5	187	10	197	**30**	**182**	1	**213**
+15 mins.	0	31	31	**202**	20	222	16	175	**2**	193
+30 mins.	0	**43**	**43**	200	**25**	**225**	1	148	0	149
+45 mins.	0	3	3	191	2	193	0	131	0	131
Total Volume	0	82	82	780	57	837	47	636	3	686
% App. Total	0	100		93.2	6.8		6.9	92.7	0.4	
PHF	.000	.477	.477	.965	.570	.930	.392	.874	.375	.805

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City of Clovis
N/S: Valley Crescent School Driveway
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File Name : 03_CVS_VCS DW_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

Groups Printed- Total Volume

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	0	6	6	155	1	156	0	274	0	274	436
04:15 PM	0	3	3	170	1	171	1	237	0	238	412
04:30 PM	0	4	4	147	1	148	0	264	0	264	416
04:45 PM	0	2	2	188	1	189	0	268	3	271	462
Total	0	15	15	660	4	664	1	1043	3	1047	1726
05:00 PM	0	4	4	176	1	177	1	315	0	316	497
05:15 PM	0	1	1	180	0	180	0	300	1	301	482
05:30 PM	0	0	0	160	0	160	0	352	1	353	513
05:45 PM	0	0	0	203	0	203	0	330	2	332	535
Total	0	5	5	719	1	720	1	1297	4	1302	2027
Grand Total	0	20	20	1379	5	1384	2	2340	7	2349	3753
Apprch %	0	100		99.6	0.4		0.1	99.6	0.3		
Total %	0	0.5	0.5	36.7	0.1	36.9	0.1	62.4	0.2	62.6	

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 05:00 PM											
05:00 PM	0	**4**	**4**	176	**1**	177	**1**	315	0	316	497
05:15 PM	0	1	1	180	0	180	0	300	1	301	482
05:30 PM	0	0	0	160	0	160	0	**352**	1	**353**	513
05:45 PM	0	0	0	**203**	0	**203**	0	330	**2**	332	**535**
Total Volume	0	5	5	719	1	720	1	1297	4	1302	2027
% App. Total	0	100		99.9	0.1		0.1	99.6	0.3		
PHF	.000	.313	.313	.885	.250	.887	.250	.921	.500	.922	.947

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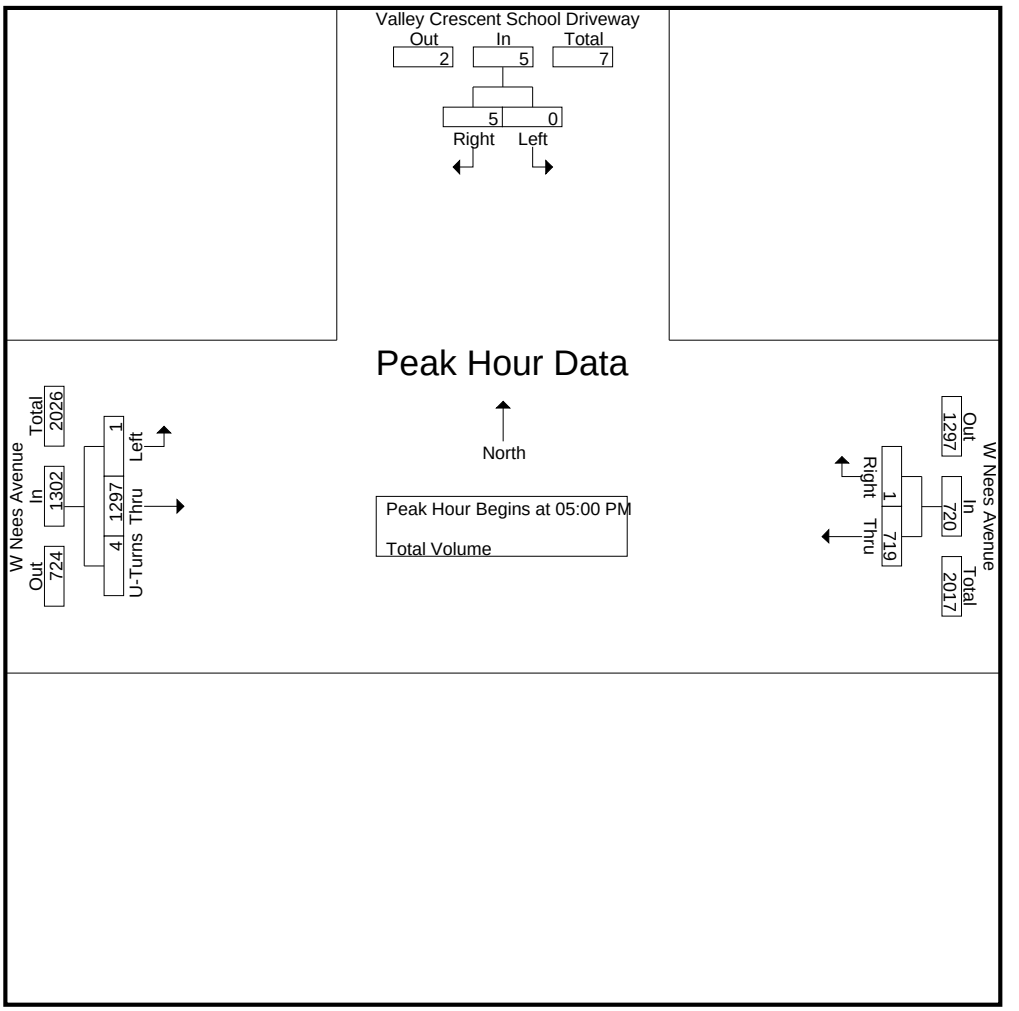


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			05:00 PM			
+0 mins.	0	**6**	**6**	176	**1**	177	**1**	315	0	316
+15 mins.	0	3	3	180	0	180	0	300	1	301
+30 mins.	0	4	4	160	0	160	0	**352**	1	**353**
+45 mins.	0	2	2	**203**	0	**203**	0	330	**2**	332
Total Volume	0	15	15	719	1	720	1	1297	4	1302
% App. Total	0	100		99.9	0.1		0.1	99.6	0.3	
PHF	.000	.625	.625	.885	.250	.887	.250	.921	.500	.922

APPENDIX D

HCM ANALYSIS WORKSHEETS

EXISTING TRAFFIC CONDITIONS

Generated with PTV VISTRO

Version 2022 (SP 0-12)

Scenario 1: 1 E AM

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	31.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	32	90	19	19	77	31	0	39	119	36	7	27	162	55
Total Analysis Volume [veh/h]	126	360	76	77	307	123	1	157	475	142	27	109	647	220
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	12	30	0	12	30	0	0	14	23	0	0	25	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	40	40	5	37	37	10	20	20	9	19	19
g / C, Green / Cycle	0.09	0.44	0.44	0.06	0.41	0.41	0.11	0.23	0.23	0.10	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.07	0.19	0.05	0.04	0.16	0.08	0.09	0.13	0.09	0.08	0.18	0.14
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1809	3618	1615	1804	3618	1615
c, Capacity [veh/h]	159	841	715	102	782	664	194	821	366	174	782	349
d1, Uniform Delay [s]	40.32	17.27	14.69	41.93	18.63	16.91	39.39	31.02	29.54	39.82	33.73	32.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.53	1.59	0.30	10.63	1.48	0.61	8.10	0.65	0.67	7.49	2.31	1.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.43	0.11	0.75	0.39	0.19	0.82	0.58	0.39	0.78	0.83	0.63
d, Delay for Lane Group [s/veh]	48.84	18.86	14.99	52.56	20.11	17.52	47.49	31.67	30.21	47.32	36.05	33.94
Lane Group LOS	D	B	B	D	C	B	D	C	C	D	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.02	5.07	0.90	1.93	4.48	1.63	3.69	4.39	2.53	3.30	6.94	4.50
50th-Percentile Queue Length [ft/ln]	75.45	126.63	22.55	48.34	112.01	40.64	92.24	109.77	63.16	82.48	173.38	112.58
95th-Percentile Queue Length [veh/ln]	5.43	8.76	1.62	3.48	7.95	2.93	6.64	7.83	4.55	5.94	11.25	7.98
95th-Percentile Queue Length [ft/ln]	135.81	218.91	40.60	87.01	198.79	73.15	166.03	195.68	113.69	148.46	281.35	199.58

Movement, Approach, & Intersection Results

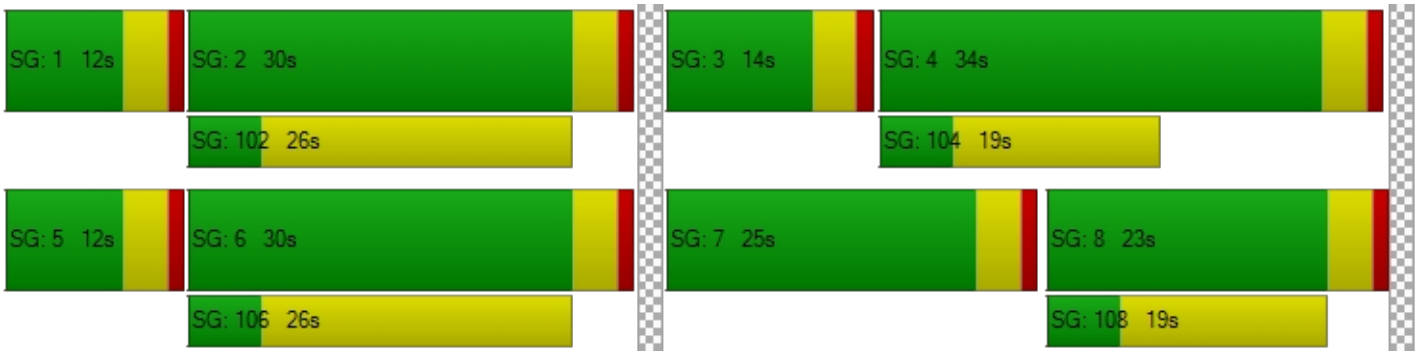
d_M, Delay for Movement [s/veh]	48.84	18.86	14.99	52.56	20.11	17.52	47.49	47.49	31.67	30.21	47.32	47.32	36.05	33.94
Movement LOS	D	B	B	D	C	B	D	D	C	C	D	D	D	C
d_A, Approach Delay [s/veh]	25.06			24.41			34.63				37.11			
Approach LOS	C			C			C				D			
d_I, Intersection Delay [s/veh]	31.79													
Intersection LOS	C													
Intersection V/C	0.606													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.49	36.49	36.49	36.49
l_p,int, Pedestrian LOS Score for Intersectio	2.497	2.537	2.862	2.675
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	577	577	422	666
d_b, Bicycle Delay [s]	22.80	22.80	28.05	20.04
l_b,int, Bicycle LOS Score for Intersection	2.487	2.396	2.069	2.297
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	18	101	221	40	2	39	227	39	0	34	96	55	2	24	145	30
Total Analysis Volume [veh/h]	71	404	883	162	7	156	907	158	1	137	385	221	7	96	581	118
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	28	47	0	0	14	33	0	0	9	40	0	0	9	40	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	61	61	7	51	51	5	21	21	5	21	21
g / C, Green / Cycle	0.16	0.56	0.56	0.06	0.46	0.46	0.05	0.19	0.19	0.05	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.14	0.17	0.10	0.05	0.18	0.10	0.04	0.11	0.14	0.03	0.16	0.07
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	557	2874	897	228	2389	746	163	682	305	161	681	304
d1, Uniform Delay [s]	45.07	13.13	12.11	50.47	19.34	17.68	52.12	40.56	41.99	51.63	43.23	39.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.81	0.28	0.44	4.11	0.46	0.65	11.44	0.74	3.29	4.16	3.18	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.31	0.18	0.71	0.38	0.21	0.85	0.56	0.73	0.64	0.85	0.39
d, Delay for Lane Group [s/veh]	48.88	13.41	12.55	54.57	19.80	18.33	63.56	41.30	45.28	55.79	46.40	39.95
Lane Group LOS	D	B	B	D	B	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	6.32	3.54	1.87	2.25	4.73	2.35	2.10	4.65	5.72	1.46	7.74	2.80
50th-Percentile Queue Length [ft/ln]	157.99	88.57	46.76	56.25	118.37	58.69	52.43	116.17	142.95	36.61	193.41	70.09
95th-Percentile Queue Length [veh/ln]	10.44	6.38	3.37	4.05	8.30	4.23	3.78	8.18	9.64	2.64	12.30	5.05
95th-Percentile Queue Length [ft/ln]	261.06	159.43	84.16	101.25	207.58	105.64	94.38	204.55	240.99	65.89	307.45	126.16

Movement, Approach, & Intersection Results

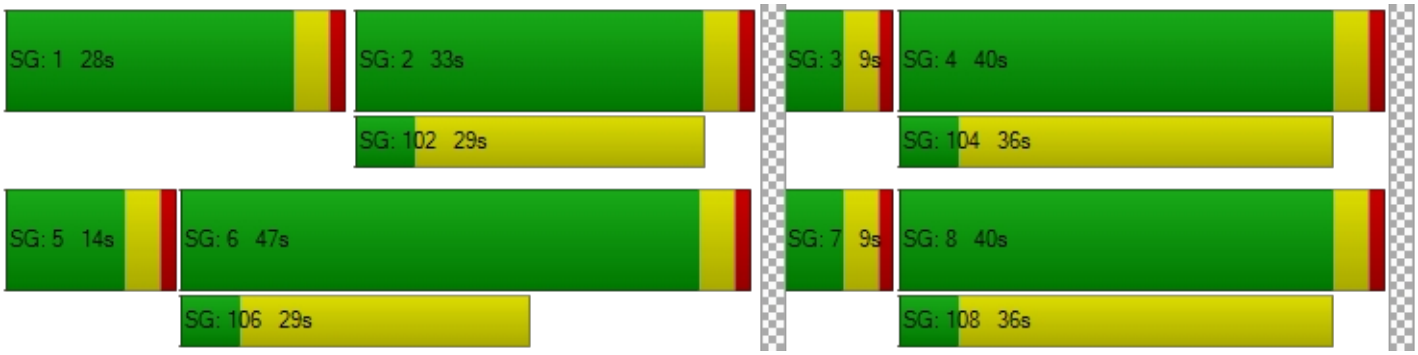
d_M, Delay for Movement [s/veh]	48.88	48.88	13.41	12.55	54.57	54.57	19.80	18.33	63.56	63.56	41.30	45.28	55.79	55.79	46.40	39.95
Movement LOS	D	D	B	B	D	D	B	B	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	24.40				24.23				46.61				46.66			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	32.36															
Intersection LOS	C															
Intersection V/C	0.597															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.39	46.39	46.39	46.39
l_p,int, Pedestrian LOS Score for Intersectio	3.356	3.288	2.999	2.885
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	781	527	654	654
d_b, Bicycle Delay [s]	20.43	29.85	24.91	24.91
l_b,int, Bicycle LOS Score for Intersection	2.173	2.149	2.060	2.215
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.201

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	82	0	667	780	109
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	25	0	202	236	33
Total Analysis Volume [veh/h]	0	99	0	807	943	132
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.20	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	14.12	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.74	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	18.56	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.12		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.71					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	33.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	35	73	15	21	50	21	1	38	264	55	12	10	136	42
Total Analysis Volume [veh/h]	139	290	60	84	198	83	3	153	1055	221	48	39	544	169
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	13	30	0	13	30	0	0	34	47	0	0	10	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	39	39	6	36	36	11	33	33	6	29	29
g / C, Green / Cycle	0.09	0.39	0.39	0.06	0.36	0.36	0.11	0.33	0.33	0.06	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.04	0.05	0.10	0.05	0.09	0.29	0.14	0.05	0.15	0.10
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1809	3618	1615	1794	3618	1615
c, Capacity [veh/h]	164	736	626	110	680	578	193	1198	535	109	1031	460
d1, Uniform Delay [s]	44.84	22.16	19.50	46.32	23.06	21.78	43.71	31.63	25.96	46.41	30.12	28.58
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.27	1.58	0.30	10.44	1.09	0.52	7.74	2.30	0.51	12.33	0.42	0.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.39	0.10	0.76	0.29	0.14	0.81	0.88	0.41	0.80	0.53	0.37
d, Delay for Lane Group [s/veh]	56.12	23.74	19.81	56.77	24.15	22.30	51.46	33.94	26.47	58.74	30.54	29.07
Lane Group LOS	E	C	B	E	C	C	D	C	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.82	5.00	0.90	2.33	3.41	1.35	4.05	11.58	3.93	2.52	5.57	3.31
50th-Percentile Queue Length [ft/ln]	95.46	124.93	22.60	58.15	85.23	33.80	101.20	289.46	98.13	62.97	139.31	82.81
95th-Percentile Queue Length [veh/ln]	6.87	8.66	1.63	4.19	6.14	2.43	7.29	17.16	7.07	4.53	9.44	5.96
95th-Percentile Queue Length [ft/ln]	171.83	216.59	40.68	104.67	153.41	60.85	182.15	428.97	176.63	113.35	236.09	149.06

Movement, Approach, & Intersection Results

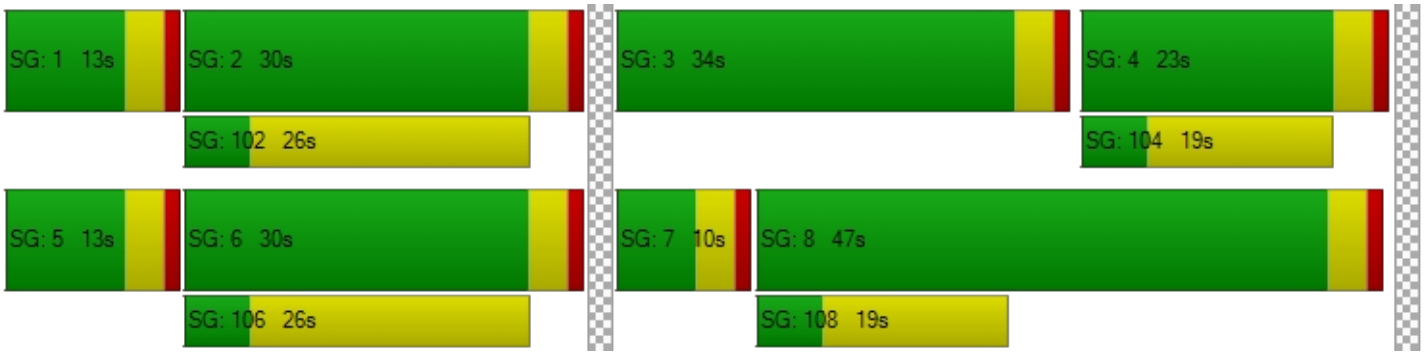
d_M, Delay for Movement [s/veh]	56.12	23.74	19.81	56.77	24.15	22.30	51.46	51.46	33.94	26.47	58.74	58.74	30.54	29.07
Movement LOS	E	C	B	E	C	C	D	D	C	C	E	E	C	C
d_A, Approach Delay [s/veh]	32.46			31.24			34.69				33.30			
Approach LOS	C			C			C				C			
d_I, Intersection Delay [s/veh]	33.57													
Intersection LOS	C													
Intersection V/C	0.642													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.44	41.44	41.44	41.44
l_p,int, Pedestrian LOS Score for Intersectio	2.446	2.455	2.995	2.730
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	520	859	380
d_b, Bicycle Delay [s]	27.41	27.41	16.27	32.84
l_b,int, Bicycle LOS Score for Intersection	2.366	2.162	2.615	2.187
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	36.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.734

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	16	118	295	59	12	57	169	30	0	45	256	69	4	29	129	22
Total Analysis Volume [veh/h]	65	471	1180	237	49	227	676	119	1	182	1025	274	18	114	514	89
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	23	41	0	0	15	33	0	0	14	45	0	0	9	40	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	44	44	11	36	36	8	35	35	5	32	32
g / C, Green / Cycle	0.17	0.40	0.40	0.10	0.32	0.32	0.07	0.32	0.32	0.05	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.15	0.23	0.15	0.08	0.13	0.07	0.05	0.28	0.17	0.04	0.14	0.06
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	595	2054	641	339	1676	523	249	1140	509	163	1051	469
d1, Uniform Delay [s]	44.81	25.93	23.46	48.78	28.95	27.17	50.15	36.04	31.10	52.03	32.29	29.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.28	1.18	1.64	4.79	0.72	1.01	4.22	2.87	0.89	9.27	0.35	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.57	0.37	0.82	0.40	0.23	0.74	0.90	0.54	0.81	0.49	0.19
d, Delay for Lane Group [s/veh]	50.09	27.11	25.10	53.57	29.67	28.18	54.37	38.90	31.99	61.29	32.64	29.51
Lane Group LOS	D	C	C	D	C	C	D	D	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.27	7.68	4.36	3.80	4.49	2.31	2.54	12.86	5.85	1.98	5.54	1.75
50th-Percentile Queue Length [ft/ln]	181.73	192.04	108.94	94.89	112.15	57.86	63.62	321.62	146.31	49.52	138.57	43.80
95th-Percentile Queue Length [veh/ln]	11.69	12.23	7.78	6.83	7.96	4.17	4.58	18.75	9.82	3.57	9.40	3.15
95th-Percentile Queue Length [ft/ln]	292.27	305.68	194.53	170.81	198.98	104.16	114.51	468.68	245.50	89.13	235.10	78.83

Movement, Approach, & Intersection Results

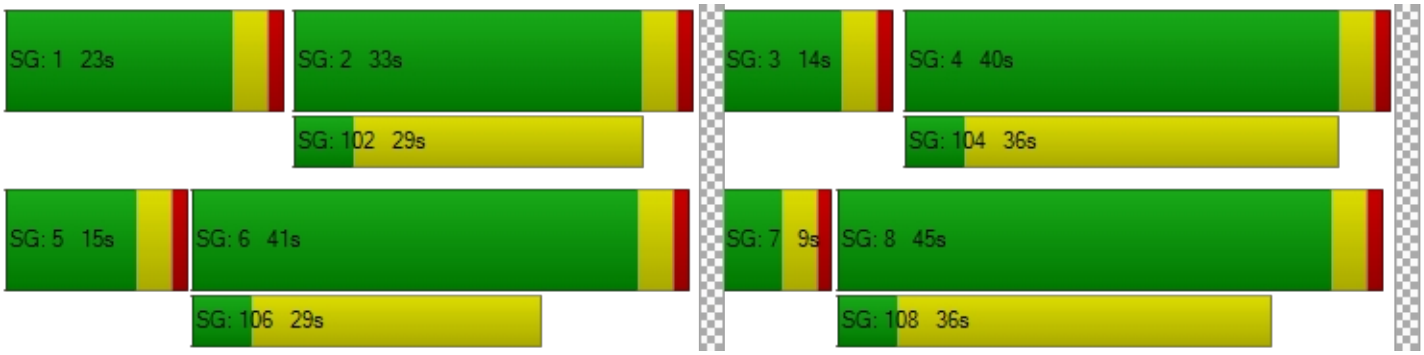
d_M, Delay for Movement [s/veh]	50.09	50.09	27.11	25.10	53.57	53.57	29.67	28.18	54.37	54.37	38.90	31.99	61.29	61.29	32.64	29.51
Movement LOS	D	D	C	C	D	D	C	C	D	D	D	C	E	E	C	C
d_A, Approach Delay [s/veh]	33.17				35.66				39.53				37.41			
Approach LOS	C				D				D				D			
d_I, Intersection Delay [s/veh]	36.07															
Intersection LOS	D															
Intersection V/C	0.734															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.39	46.39	46.39	46.39
l_p,int, Pedestrian LOS Score for Intersectio	3.405	3.316	3.145	3.018
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	672	527	745	654
d_b, Bicycle Delay [s]	24.25	29.85	21.66	24.91
l_b,int, Bicycle LOS Score for Intersection	2.375	2.024	2.632	2.151
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	0	1298	719	2
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	342	189	1
Total Analysis Volume [veh/h]	0	5	0	1368	758	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	10.82	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.61	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.82		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.03					
Intersection LOS	B					

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	0	0	0	0	34	34	0	27	0	0	0	34	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	146	319	67	68	272	143	35	139	448	126	24	97	608	195
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	41	90	19	19	77	40	10	39	126	36	7	27	171	55
Total Analysis Volume [veh/h]	165	360	76	77	307	161	39	157	505	142	27	109	685	220
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	14	30	0	0	16	23	0	0	23	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	37	37	5	32	32	12	23	23	9	20	20
g / C, Green / Cycle	0.11	0.41	0.41	0.06	0.36	0.36	0.13	0.26	0.26	0.10	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.09	0.19	0.05	0.04	0.16	0.10	0.11	0.14	0.09	0.08	0.19	0.14
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1804	3618	1615	1804	3618	1615
c, Capacity [veh/h]	201	785	668	102	682	580	233	928	414	173	809	361
d1, Uniform Delay [s]	39.22	19.14	16.28	41.91	22.09	20.57	38.38	28.97	27.33	39.84	33.53	31.47
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.16	1.92	0.35	10.51	2.14	1.19	8.02	0.50	0.49	7.57	2.56	1.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.46	0.11	0.75	0.45	0.28	0.84	0.54	0.34	0.78	0.85	0.61
d, Delay for Lane Group [s/veh]	47.38	21.07	16.63	52.42	24.23	21.76	46.40	29.47	27.82	47.41	36.09	33.13
Lane Group LOS	D	C	B	D	C	C	D	C	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.89	5.44	0.97	1.93	5.05	2.46	4.53	4.48	2.40	3.30	7.38	4.44
50th-Percentile Queue Length [ft/ln]	97.26	136.11	24.16	48.26	126.15	61.45	113.26	111.98	59.96	82.57	184.39	110.99
95th-Percentile Queue Length [veh/ln]	7.00	9.27	1.74	3.47	8.73	4.42	8.02	7.95	4.32	5.95	11.83	7.89
95th-Percentile Queue Length [ft/ln]	175.08	231.77	43.49	86.87	218.25	110.60	200.53	198.75	107.93	148.63	295.74	197.37

Movement, Approach, & Intersection Results

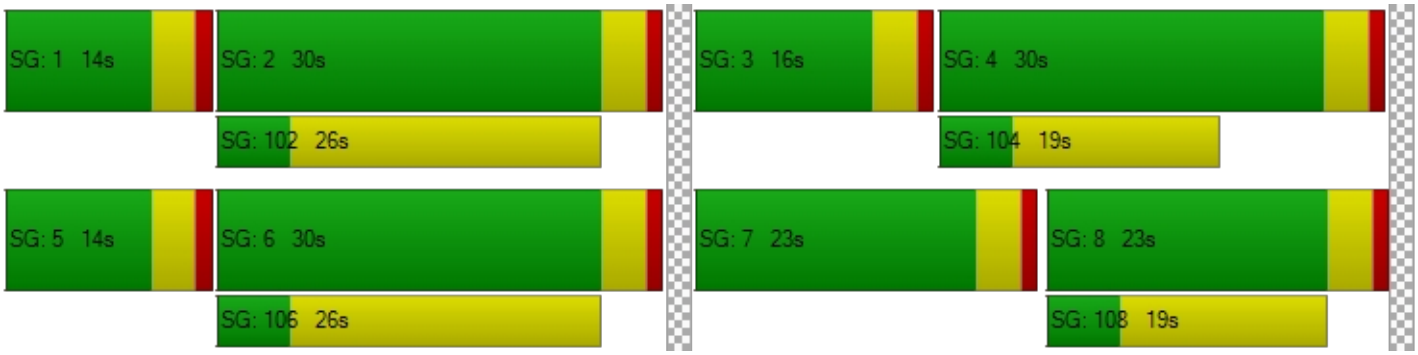
d_M, Delay for Movement [s/veh]	47.38	21.07	16.63	52.42	24.23	21.76	46.40	46.40	29.47	27.82	47.41	47.41	36.09	33.13
Movement LOS	D	C	B	D	C	C	D	D	C	C	D	D	D	C
d_A, Approach Delay [s/veh]	27.73			27.48			33.13				36.95			
Approach LOS	C			C			C				D			
d_I, Intersection Delay [s/veh]	32.35													
Intersection LOS	C													
Intersection V/C	0.670													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.49	36.49	36.49	36.49
l_p,int, Pedestrian LOS Score for Intersectio	2.509	2.549	2.906	2.684
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	577	577	422	577
d_b, Bicycle Delay [s]	22.80	22.80	28.05	22.80
l_b,int, Bicycle LOS Score for Intersection	2.551	2.459	2.126	2.329
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	33.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	34	0	27	27	25	27
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	382	835	153	7	148	858	149	1	130	398	209	34	118	575	139
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	18	101	221	40	2	39	227	39	0	34	105	55	9	31	152	37
Total Analysis Volume [veh/h]	71	404	883	162	7	156	907	158	1	137	421	221	36	125	608	147
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	27	48	0	0	12	33	0	0	10	40	0	0	10	40	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	59	59	7	49	49	6	22	22	6	22	22
g / C, Green / Cycle	0.16	0.54	0.54	0.06	0.45	0.45	0.05	0.20	0.20	0.05	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.14	0.17	0.10	0.05	0.18	0.10	0.04	0.12	0.14	0.05	0.17	0.09
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	555	2787	870	226	2302	718	194	711	317	194	711	317
d1, Uniform Delay [s]	45.13	14.14	13.04	50.53	20.57	18.80	51.13	40.23	41.18	51.48	42.73	39.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.91	0.30	0.47	4.27	0.51	0.70	4.71	0.79	2.76	8.65	3.09	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.32	0.19	0.72	0.39	0.22	0.71	0.59	0.70	0.83	0.86	0.46
d, Delay for Lane Group [s/veh]	49.04	14.44	13.51	54.80	21.08	19.51	55.85	41.02	43.94	60.13	45.82	40.16
Lane Group LOS	D	B	B	D	C	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	6.33	3.73	1.97	2.26	4.93	2.44	1.95	5.08	5.62	2.39	8.06	3.53
50th-Percentile Queue Length [ft/ln]	158.28	93.21	49.17	56.38	123.23	61.10	48.65	127.05	140.53	59.73	201.59	88.16
95th-Percentile Queue Length [veh/ln]	10.46	6.71	3.54	4.06	8.57	4.40	3.50	8.78	9.51	4.30	12.72	6.35
95th-Percentile Queue Length [ft/ln]	261.44	167.78	88.51	101.49	214.26	109.98	87.58	219.48	237.73	107.52	318.02	158.69

Movement, Approach, & Intersection Results

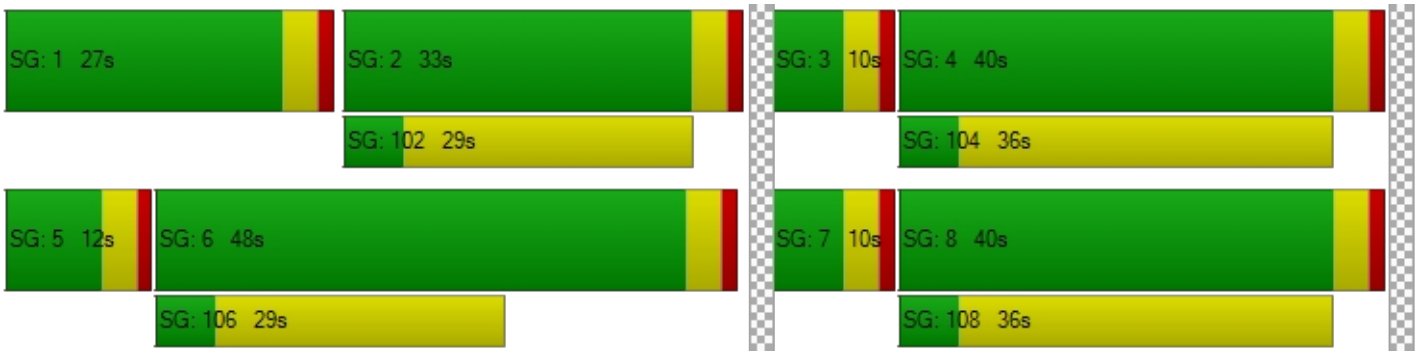
d_M, Delay for Movement [s/veh]	49.04	49.04	14.44	13.51	54.80	54.80	21.08	19.51	55.85	55.85	41.02	43.94	60.13	60.13	45.82	40.16
Movement LOS	D	D	B	B	D	D	C	B	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	25.15				25.35				44.47				47.42			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	33.19															
Intersection LOS	C															
Intersection V/C	0.606															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.39	46.39	46.39	46.39
l_p,int, Pedestrian LOS Score for Intersectio	3.361	3.293	3.012	2.912
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	527	654	654
d_b, Bicycle Delay [s]	19.82	29.85	24.91	24.91
l_b,int, Bicycle LOS Score for Intersection	2.173	2.149	2.090	2.286
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	21.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	0	61	0	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	188	0	728	780	245
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	57	0	220	236	74
Total Analysis Volume [veh/h]	0	227	0	880	943	296
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.52	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	21.87	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	2.93	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	73.21	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	21.87		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	2.12					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	33.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	0	0	0	7	7	0	8	0	0	0	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	135	268	55	78	183	84	10	141	983	204	44	36	510	156
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	37	73	15	21	50	23	3	38	266	55	12	10	138	42
Total Analysis Volume [veh/h]	146	290	60	84	198	91	11	153	1064	221	48	39	552	169
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	14	30	0	0	33	46	0	0	10	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	39	39	6	35	35	11	33	33	6	28	28
g / C, Green / Cycle	0.10	0.39	0.39	0.06	0.35	0.35	0.11	0.33	0.33	0.06	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.04	0.05	0.10	0.06	0.09	0.29	0.14	0.05	0.15	0.10
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1808	3618	1615	1794	3618	1615
c, Capacity [veh/h]	178	733	623	110	662	562	202	1204	537	109	1020	456
d1, Uniform Delay [s]	44.27	22.29	19.61	46.31	23.75	22.54	43.47	31.59	25.83	46.41	30.46	28.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.93	1.60	0.31	10.38	1.16	0.62	7.71	2.36	0.50	12.33	0.45	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.40	0.10	0.76	0.30	0.16	0.81	0.88	0.41	0.80	0.54	0.37
d, Delay for Lane Group [s/veh]	53.19	23.89	19.92	56.69	24.90	23.16	51.18	33.94	26.33	58.74	30.90	29.33
Lane Group LOS	D	C	B	E	C	C	D	C	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.89	5.02	0.91	2.32	3.47	1.52	4.25	11.69	3.91	2.52	5.70	3.33
50th-Percentile Queue Length [ft/ln]	97.34	125.42	22.69	58.11	86.86	37.99	106.14	292.21	97.81	62.97	142.46	83.23
95th-Percentile Queue Length [veh/ln]	7.01	8.69	1.63	4.18	6.25	2.73	7.62	17.30	7.04	4.53	9.61	5.99
95th-Percentile Queue Length [ft/ln]	175.22	217.26	40.84	104.59	156.36	68.37	190.62	432.38	176.05	113.35	240.33	149.81

Movement, Approach, & Intersection Results

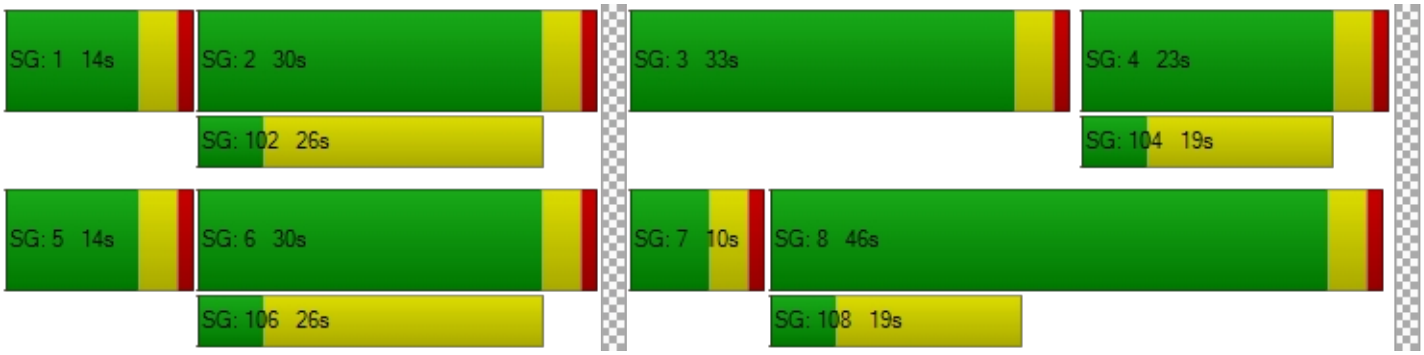
d_M, Delay for Movement [s/veh]	53.19	23.89	19.92	56.69	24.90	23.16	51.18	51.18	33.94	26.33	58.74	58.74	30.90	29.33
Movement LOS	D	C	B	E	C	C	D	D	C	C	E	E	C	C
d_A, Approach Delay [s/veh]	32.03			31.64			34.73				33.57			
Approach LOS	C			C			C				C			
d_I, Intersection Delay [s/veh]	33.64													
Intersection LOS	C													
Intersection V/C	0.645													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.44	41.44	41.44	41.44
l_p,int, Pedestrian LOS Score for Intersectio	2.448	2.458	3.005	2.733
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	520	839	380
d_b, Bicycle Delay [s]	27.41	27.41	16.85	32.84
l_b,int, Bicycle LOS Score for Intersection	2.378	2.175	2.629	2.194
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	38.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.732

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	7	0	8	8	9	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	63	454	1136	228	47	219	651	115	1	175	994	264	25	118	504	94
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	16	118	295	59	12	57	169	30	0	45	258	69	6	31	131	24
Total Analysis Volume [veh/h]	65	471	1180	237	49	227	676	119	1	182	1032	274	26	123	523	98
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	26	44	0	0	15	33	0	0	16	51	0	0	10	45	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	49	49	11	40	40	8	38	38	6	36	36
g / C, Green / Cycle	0.17	0.41	0.41	0.09	0.33	0.33	0.07	0.32	0.32	0.05	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.15	0.23	0.15	0.08	0.13	0.07	0.05	0.29	0.17	0.04	0.14	0.06
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	597	2104	657	324	1702	531	245	1148	512	178	1079	482
d1, Uniform Delay [s]	48.81	27.39	24.78	53.68	31.10	29.19	54.82	39.16	33.70	56.49	34.55	31.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.15	1.09	1.54	6.29	0.69	0.98	4.55	2.85	0.87	9.78	0.34	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.56	0.36	0.85	0.40	0.22	0.75	0.90	0.53	0.84	0.48	0.20
d, Delay for Lane Group [s/veh]	53.97	28.47	26.32	59.97	31.79	30.16	59.37	42.00	34.57	66.26	34.88	31.67
Lane Group LOS	D	C	C	E	C	C	E	D	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.98	8.36	4.72	4.25	4.92	2.53	2.81	14.31	6.46	2.45	6.18	2.12
50th-Percentile Queue Length [ft/ln]	199.56	208.89	118.02	106.23	123.11	63.26	70.14	357.69	161.40	61.15	154.48	52.98
95th-Percentile Queue Length [veh/ln]	12.62	13.10	8.28	7.63	8.56	4.55	5.05	20.51	10.62	4.40	10.26	3.81
95th-Percentile Queue Length [ft/ln]	315.40	327.41	207.10	190.75	214.09	113.87	126.26	512.78	265.58	110.06	256.39	95.36

Movement, Approach, & Intersection Results

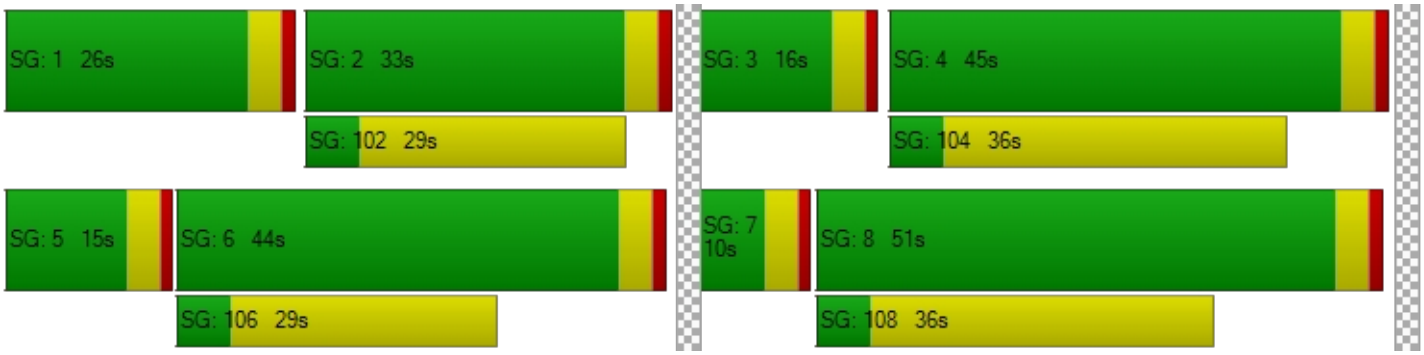
d_M, Delay for Movement [s/veh]	53.97	53.97	28.47	26.32	59.97	59.97	31.79	30.16	59.37	59.37	42.00	34.57	66.26	66.26	34.88	31.67
Movement LOS	D	D	C	C	E	E	C	C	E	E	D	C	E	E	C	C
d_A, Approach Delay [s/veh]	35.21				38.88				42.77				40.55			
Approach LOS	D				D				D				D			
d_I, Intersection Delay [s/veh]	38.86															
Intersection LOS	D															
Intersection V/C	0.732															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersectio	3.411	3.321	3.153	3.030
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	666	483	783	683
d_b, Bicycle Delay [s]	26.68	34.52	22.22	26.02
l_b,int, Bicycle LOS Score for Intersection	2.375	2.024	2.638	2.173
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.066

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	15	0	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	0	1313	719	30
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	0	346	189	8
Total Analysis Volume [veh/h]	0	40	0	1384	758	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	11.32	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.21	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.25	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.32		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	B					

NEAR-TERM TRAFFIC CONDITIONS

Generated with PTV VISTRO

Version 2022 (SP 0-12)

Scenario 5: 5 NT AM

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	36.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	0	4	4	34	34	0	30	0	0	0	45	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	366	77	82	316	159	35	160	514	145	28	111	704	224
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	47	103	22	23	89	45	10	45	145	41	8	31	198	63
Total Analysis Volume [veh/h]	187	413	87	92	356	179	39	180	579	163	32	125	794	253
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	16	30	0	16	30	0	0	19	23	0	0	31	35	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	38	38	7	33	33	14	29	29	11	25	25
g / C, Green / Cycle	0.12	0.38	0.38	0.07	0.33	0.33	0.14	0.29	0.29	0.11	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.10	0.22	0.05	0.05	0.19	0.11	0.12	0.16	0.10	0.09	0.22	0.16
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1804	3618	1615	1804	3618	1615
c, Capacity [veh/h]	218	724	615	120	621	528	253	1032	461	194	915	408
d1, Uniform Delay [s]	43.19	24.52	20.28	45.99	27.93	25.53	42.14	30.44	28.44	43.68	35.80	33.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.36	3.25	0.48	9.79	3.82	1.74	8.71	0.48	0.46	7.78	2.67	1.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.57	0.14	0.77	0.57	0.34	0.87	0.56	0.35	0.81	0.87	0.62
d, Delay for Lane Group [s/veh]	52.55	27.77	20.76	55.78	31.76	27.27	50.85	30.92	28.90	51.46	38.47	34.67
Lane Group LOS	D	C	C	E	C	C	D	C	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.97	7.96	1.36	2.52	7.39	3.35	5.68	5.69	3.01	4.23	9.55	5.61
50th-Percentile Queue Length [ft/ln]	124.27	198.96	33.88	62.99	184.69	83.68	142.10	142.19	75.36	105.76	238.79	140.19
95th-Percentile Queue Length [veh/ln]	8.63	12.58	2.44	4.54	11.85	6.02	9.59	9.60	5.43	7.60	14.62	9.49
95th-Percentile Queue Length [ft/ln]	215.68	314.62	60.98	113.39	296.13	150.62	239.85	239.97	135.65	190.09	365.51	237.29

Movement, Approach, & Intersection Results

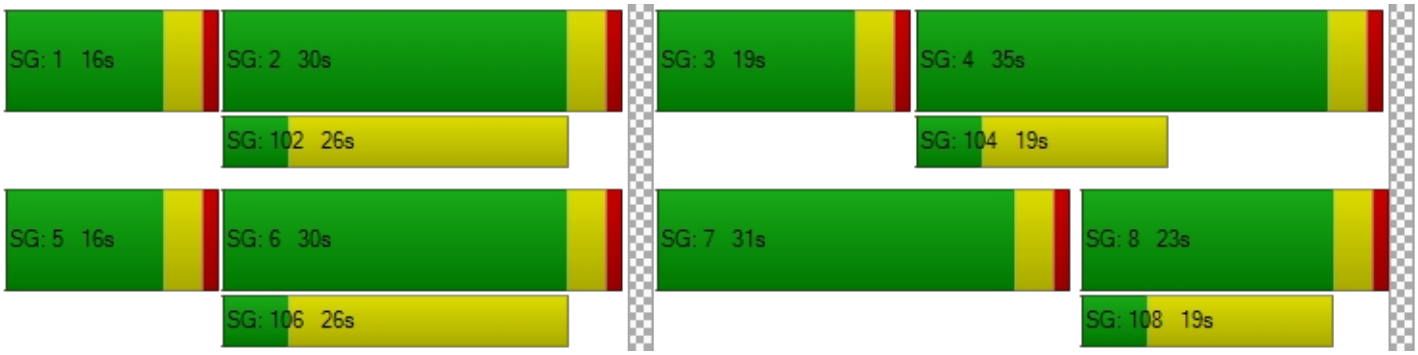
d_M, Delay for Movement [s/veh]	52.55	27.77	20.76	55.78	31.76	27.27	50.85	50.85	30.92	28.90	51.46	51.46	38.47	34.67
Movement LOS	D	C	C	E	C	C	D	D	C	C	D	D	D	C
d_A, Approach Delay [s/veh]	33.62			34.00			35.12				39.37			
Approach LOS	C			C			D				D			
d_I, Intersection Delay [s/veh]	36.09													
Intersection LOS	D													
Intersection V/C	0.752													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.44	41.44	41.44	41.44
l_p,int, Pedestrian LOS Score for Intersectio	2.570	2.616	2.977	2.725
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	520	520	380	620
d_b, Bicycle Delay [s]	27.41	27.41	32.84	23.84
l_b,int, Bicycle LOS Score for Intersection	2.693	2.594	2.204	2.450
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	36.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	17	1	0	0	4	0	0	3	36	0	27	29	31	33
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	77	439	976	177	8	170	990	171	1	152	454	240	35	134	663	162
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	20	116	258	47	2	45	262	45	0	40	120	63	9	35	175	43
Total Analysis Volume [veh/h]	81	464	1032	187	8	180	1047	181	1	161	480	254	37	142	701	171
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	33	52	0	0	14	33	0	0	11	42	0	0	12	43	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	62	62	8	49	49	7	26	26	8	27	27
g / C, Green / Cycle	0.18	0.52	0.52	0.07	0.41	0.41	0.06	0.21	0.21	0.07	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.16	0.20	0.12	0.05	0.20	0.11	0.05	0.13	0.16	0.05	0.19	0.11
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	624	2673	834	247	2117	661	208	770	344	236	799	357
d1, Uniform Delay [s]	48.04	17.53	15.88	54.81	26.28	23.61	55.72	42.90	44.15	55.04	45.20	40.76
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.00	0.42	0.62	4.77	0.83	1.02	6.27	0.83	3.13	4.93	3.28	1.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.39	0.22	0.76	0.49	0.27	0.78	0.62	0.74	0.76	0.88	0.48
d, Delay for Lane Group [s/veh]	52.04	17.96	16.50	59.58	27.10	24.63	61.99	43.73	47.28	59.97	48.48	41.75
Lane Group LOS	D	B	B	E	C	C	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.97	5.39	2.75	2.87	7.11	3.43	2.54	6.37	7.14	2.78	10.21	4.43
50th-Percentile Queue Length [ft/ln]	199.20	134.83	68.68	71.66	177.86	85.68	63.58	159.18	178.42	69.52	255.19	110.73
95th-Percentile Queue Length [veh/ln]	12.60	9.20	4.95	5.16	11.49	6.17	4.58	10.51	11.52	5.01	15.45	7.88
95th-Percentile Queue Length [ft/ln]	314.93	230.04	123.63	128.99	287.22	154.22	114.44	262.64	287.95	125.14	386.18	197.02

Movement, Approach, & Intersection Results

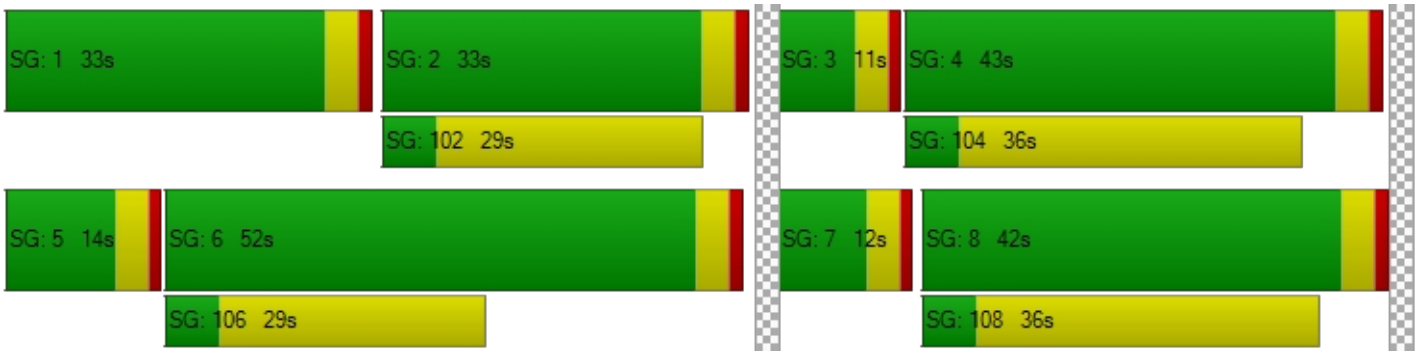
d_M, Delay for Movement [s/veh]	52.04	52.04	17.96	16.50	59.58	59.58	27.10	24.63	61.99	61.99	43.73	47.28	59.97	59.97	48.48	41.75
Movement LOS	D	D	B	B	E	E	C	C	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	28.33				31.10				48.04				49.34			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	36.85															
Intersection LOS	D															
Intersection V/C	0.689															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersectio	3.444	3.366	3.078	2.962
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	483	633	650
d_b, Bicycle Delay [s]	21.61	34.52	28.03	27.35
l_b,int, Bicycle LOS Score for Intersection	2.275	2.239	2.166	2.396
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	29.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.634

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	0	64	14	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	200	0	830	910	261
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	60	0	251	275	79
Total Analysis Volume [veh/h]	0	242	0	1004	1100	316
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.63	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	29.40	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	4.19	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	104.75	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	29.40		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.67					
Intersection LOS	D					

Generated with PTV VISTRO

Version 2022 (SP 0-12)

Scenario 6: 6 NT PM

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	38.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	4	4	7	7	0	17	0	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	308	63	94	214	95	10	162	1137	234	51	41	595	179
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	43	83	17	25	58	26	3	44	308	63	14	11	161	48
Total Analysis Volume [veh/h]	172	333	68	102	232	103	11	175	1231	253	55	44	644	194
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	17	30	0	17	30	0	0	50	61	0	0	12	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	42	42	9	37	37	15	45	45	8	39	39
g / C, Green / Cycle	0.11	0.35	0.35	0.07	0.31	0.31	0.12	0.38	0.38	0.07	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.04	0.06	0.12	0.06	0.10	0.34	0.16	0.06	0.18	0.12
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1808	3618	1615	1794	3618	1615
c, Capacity [veh/h]	198	663	563	129	591	502	219	1369	611	122	1176	525
d1, Uniform Delay [s]	52.65	30.89	26.60	54.87	32.48	30.46	51.68	35.17	27.51	55.22	33.28	31.09
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.02	2.71	0.44	10.10	1.96	0.92	8.73	2.40	0.45	12.01	0.40	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.50	0.12	0.79	0.39	0.21	0.85	0.90	0.41	0.81	0.55	0.37
d, Delay for Lane Group [s/veh]	63.68	33.60	27.03	64.97	34.44	31.38	60.41	37.57	27.96	67.23	33.68	31.52
Lane Group LOS	E	C	C	E	C	C	E	D	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.62	7.91	1.37	3.35	5.51	2.29	5.87	16.46	5.22	3.39	7.84	4.44
50th-Percentile Queue Length [ft/ln]	140.51	197.73	34.29	83.79	137.63	57.17	146.78	411.45	130.53	84.69	196.01	110.98
95th-Percentile Queue Length [veh/ln]	9.51	12.52	2.47	6.03	9.35	4.12	9.84	23.11	8.97	6.10	12.43	7.89
95th-Percentile Queue Length [ft/ln]	237.71	313.04	61.71	150.82	233.83	102.91	246.12	577.78	224.22	152.45	310.81	197.37

Movement, Approach, & Intersection Results

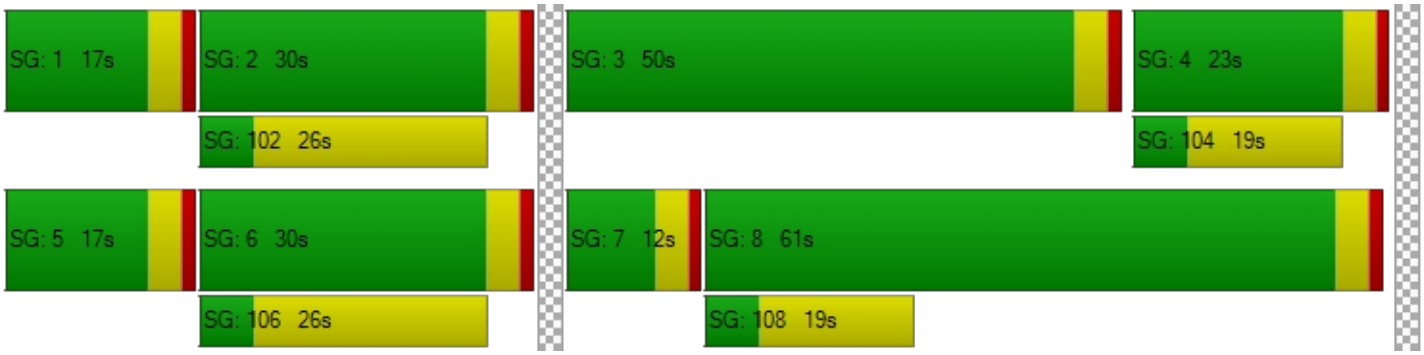
d_M, Delay for Movement [s/veh]	63.68	33.60	27.03	64.97	34.44	31.38	60.41	60.41	37.57	27.96	67.23	67.23	33.68	31.52
Movement LOS	E	C	C	E	C	C	E	E	D	C	E	E	C	C
d_A, Approach Delay [s/veh]	41.85			40.84			38.66				36.78			
Approach LOS	D			D			D				D			
d_I, Intersection Delay [s/veh]	38.94													
Intersection LOS	D													
Intersection V/C	0.724													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.37	51.37	51.37	51.37
l_p,int, Pedestrian LOS Score for Intersectio	2.504	2.517	3.099	2.785
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	950	317
d_b, Bicycle Delay [s]	36.85	36.85	16.56	42.53
l_b,int, Bicycle LOS Score for Intersection	2.505	2.281	2.793	2.296
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	49.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.822

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	2	0	0	4	0	0	5	14	0	8	9	13	18
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	522	1328	264	54	252	752	132	1	206	1148	303	28	135	582	117
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	19	136	345	69	14	65	195	34	0	53	298	79	7	35	151	30
Total Analysis Volume [veh/h]	75	542	1379	274	56	262	781	137	1	214	1192	315	29	140	604	121
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	37	50	0	0	20	33	0	0	19	67	0	0	13	61	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	150	150	150	150	150	150	150	150	150	150	150	150
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	56	56	15	42	42	11	54	54	9	52	52
g / C, Green / Cycle	0.19	0.37	0.37	0.10	0.28	0.28	0.08	0.36	0.36	0.06	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.18	0.27	0.17	0.09	0.15	0.08	0.06	0.33	0.20	0.05	0.17	0.07
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	674	1922	600	362	1462	456	264	1297	579	212	1244	555
d1, Uniform Delay [s]	59.40	40.39	35.69	66.33	45.46	42.18	68.33	46.00	38.32	69.57	38.75	34.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.44	2.33	2.50	6.89	1.40	1.68	6.06	3.12	0.80	6.77	0.29	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.72	0.46	0.88	0.53	0.30	0.82	0.92	0.54	0.80	0.49	0.22
d, Delay for Lane Group [s/veh]	64.85	42.73	38.18	73.22	46.86	43.86	74.40	49.12	39.11	76.34	39.05	35.09
Lane Group LOS	E	D	D	E	D	D	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	11.69	14.45	7.81	6.22	8.19	4.12	4.23	21.14	9.19	3.38	8.75	3.17
50th-Percentile Queue Length [ft/ln]	292.22	361.31	195.20	155.41	204.83	103.03	105.67	528.41	229.65	84.47	218.73	79.21
95th-Percentile Queue Length [veh/ln]	17.30	20.69	12.39	10.31	12.89	7.42	7.60	28.68	14.16	6.08	13.60	5.70
95th-Percentile Queue Length [ft/ln]	432.40	517.17	309.77	257.64	322.19	185.45	189.96	716.90	353.91	152.04	340.00	142.58

Movement, Approach, & Intersection Results

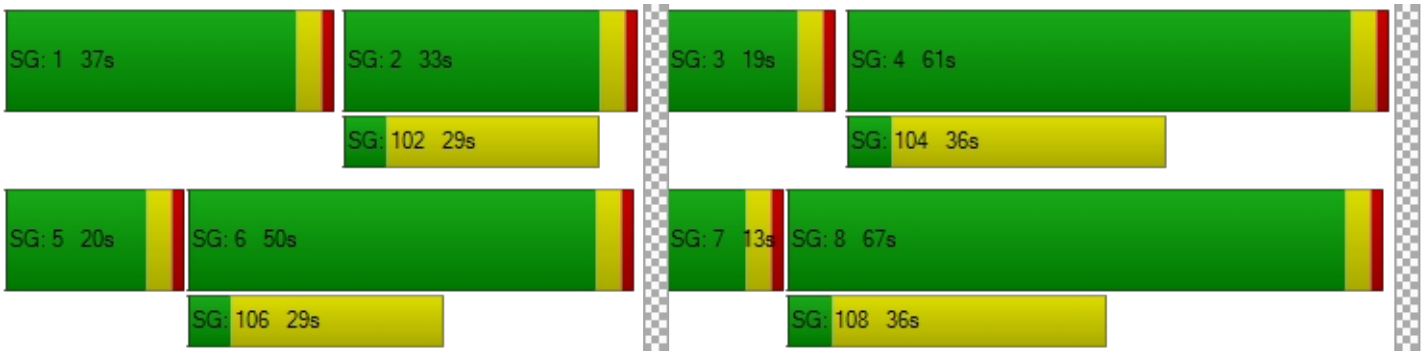
d_M, Delay for Movement [s/veh]	64.85	64.85	42.73	38.18	73.22	73.22	46.86	43.86	74.40	74.40	49.12	39.11	76.34	76.34	39.05	35.09
Movement LOS	E	E	D	D	E	E	D	D	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	48.19				53.31				50.45				45.56			
Approach LOS	D				D				D				D			
d_I, Intersection Delay [s/veh]	49.48															
Intersection LOS	D															
Intersection V/C	0.822															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	66.26	66.26	66.26	66.26
l_p,int, Pedestrian LOS Score for Intersectio	3.508	3.407	3.247	3.106
Crosswalk LOS	D	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	613	387	840	760
d_b, Bicycle Delay [s]	36.05	48.80	25.22	28.82
l_b,int, Bicycle LOS Score for Intersection	2.510	2.095	2.804	2.273
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.074

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	24	15	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	39	0	1515	841	30
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	0	399	222	8
Total Analysis Volume [veh/h]	0	41	0	1596	886	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.01	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.24	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.97	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.01		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.19					
Intersection LOS	B					

LONG-TERM TRAFFIC CONDITIONS

Generated with PTV VISTRO

Version 2022 (SP 0-12)

Scenario 7: 7 LT AM

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	39.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.770

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	0	4	4	34	34	0	30	0	0	0	45	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	172	384	81	86	331	165	35	167	536	151	29	117	735	234
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	48	108	23	24	93	47	10	47	151	43	8	33	207	66
Total Analysis Volume [veh/h]	194	433	91	97	373	186	39	188	604	170	33	132	829	264
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	18	35	0	13	30	0	0	24	23	0	0	39	38	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	42	42	7	36	36	16	32	32	12	29	29
g / C, Green / Cycle	0.12	0.38	0.38	0.07	0.33	0.33	0.14	0.30	0.30	0.11	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.11	0.23	0.06	0.05	0.20	0.12	0.13	0.17	0.11	0.09	0.23	0.16
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1805	3618	1615	1804	3618	1615
c, Capacity [veh/h]	224	722	614	124	617	524	260	1068	477	200	949	424
d1, Uniform Delay [s]	47.32	27.39	22.41	50.49	31.25	28.39	46.16	32.81	30.55	47.91	38.86	35.81
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.58	3.65	0.51	10.36	4.36	1.88	9.01	0.47	0.45	8.31	2.70	1.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.60	0.15	0.78	0.60	0.35	0.87	0.57	0.36	0.83	0.87	0.62
d, Delay for Lane Group [s/veh]	56.90	31.05	22.92	60.85	35.62	30.26	55.17	33.29	31.00	56.22	41.56	37.31
Lane Group LOS	E	C	C	E	D	C	E	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.69	9.47	1.59	2.93	8.77	3.91	6.52	6.59	3.48	4.92	11.05	6.46
50th-Percentile Queue Length [ft/ln]	142.33	236.84	39.75	73.35	219.28	97.69	163.07	164.71	86.90	122.93	276.37	161.40
95th-Percentile Queue Length [veh/ln]	9.61	14.52	2.86	5.28	13.63	7.03	10.71	10.80	6.26	8.55	16.51	10.62
95th-Percentile Queue Length [ft/ln]	240.15	363.03	71.54	132.03	340.71	175.84	267.78	269.95	156.42	213.84	412.69	265.58

Movement, Approach, & Intersection Results

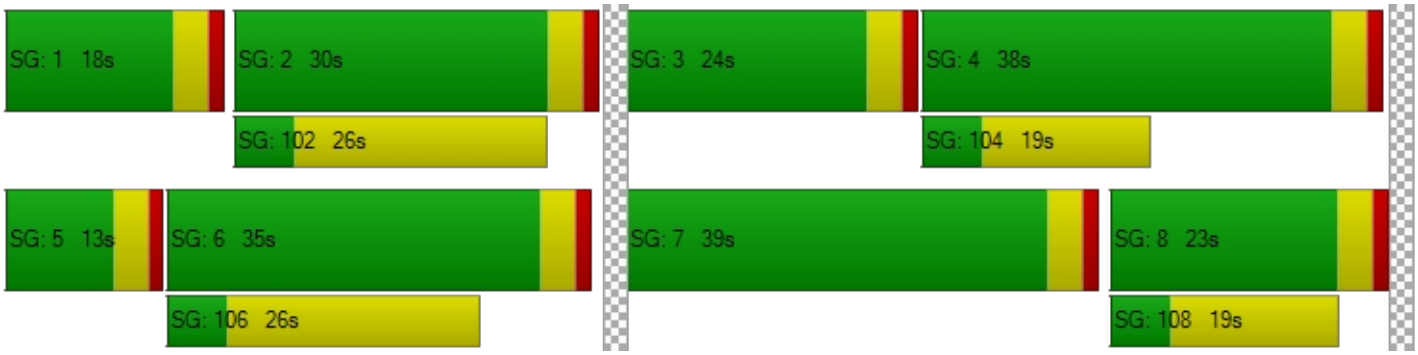
d_M, Delay for Movement [s/veh]	56.90	31.05	22.92	60.85	35.62	30.26	55.17	55.17	33.29	31.00	56.22	56.22	41.56	37.31
Movement LOS	E	C	C	E	D	C	E	E	C	C	E	E	D	D
d_A, Approach Delay [s/veh]	37.00			37.83			37.86				42.59			
Approach LOS	D			D			D				D			
d_I, Intersection Delay [s/veh]	39.32													
Intersection LOS	D													
Intersection V/C	0.770													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.39	46.39	46.39	46.39
l_p,int, Pedestrian LOS Score for Intersectio	2.595	2.643	3.003	2.742
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	563	473	345	618
d_b, Bicycle Delay [s]	28.39	32.10	37.67	26.28
l_b,int, Bicycle LOS Score for Intersection	2.744	2.642	2.230	2.489
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	37.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.720

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	17	1	0	0	4	0	0	3	36	0	27	29	31	33
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	459	1021	185	8	178	1035	179	1	159	474	251	35	138	692	168
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	21	121	270	49	2	47	274	47	0	42	125	66	9	36	183	44
Total Analysis Volume [veh/h]	86	485	1079	196	8	188	1094	189	1	168	501	265	37	146	732	178
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	31	54	0	0	13	36	0	0	12	41	0	0	12	41	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	60	60	9	47	47	8	27	27	8	27	27
g / C, Green / Cycle	0.18	0.50	0.50	0.07	0.39	0.39	0.06	0.23	0.23	0.07	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.16	0.21	0.12	0.06	0.21	0.12	0.05	0.14	0.16	0.05	0.20	0.11
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	646	2588	807	256	2012	628	229	818	365	239	828	370
d1, Uniform Delay [s]	47.76	18.97	17.09	54.68	28.45	25.41	55.14	41.76	43.04	55.03	44.77	40.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.12	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.21	0.50	0.71	4.76	1.06	1.23	4.61	0.75	2.95	5.07	3.36	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.42	0.24	0.77	0.54	0.30	0.74	0.61	0.73	0.77	0.88	0.48
d, Delay for Lane Group [s/veh]	51.97	19.47	17.81	59.45	29.51	26.64	59.76	42.51	46.00	60.10	48.13	41.11
Lane Group LOS	D	B	B	E	C	C	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.37	5.96	3.03	2.99	7.86	3.76	2.60	6.55	7.35	2.85	10.65	4.58
50th-Percentile Queue Length [ft/ln]	209.16	148.93	75.65	74.68	196.44	94.01	64.99	163.81	183.77	71.21	266.32	114.40
95th-Percentile Queue Length [veh/ln]	13.11	9.96	5.45	5.38	12.45	6.77	4.68	10.75	11.80	5.13	16.01	8.08
95th-Percentile Queue Length [ft/ln]	327.75	249.00	136.17	134.42	311.37	169.22	116.99	268.76	294.93	128.18	400.14	202.10

Movement, Approach, & Intersection Results

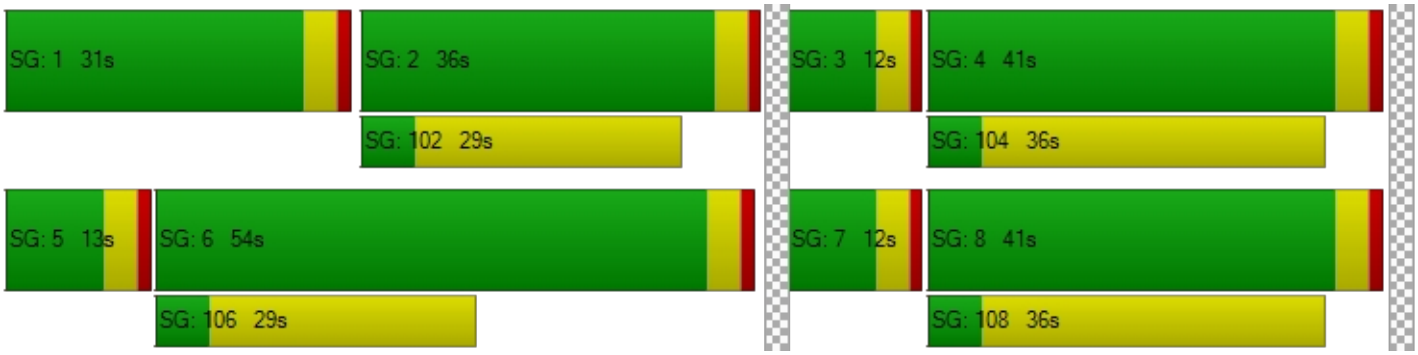
d_M, Delay for Movement [s/veh]	51.97	51.97	19.47	17.81	59.45	59.45	29.51	26.64	59.76	59.76	42.51	46.00	60.10	60.10	48.13	41.11
Movement LOS	D	D	B	B	E	E	C	C	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	29.35				33.11				46.62				48.99			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	37.42															
Intersection LOS	D															
Intersection V/C	0.720															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.37	51.37	51.37	51.37
l_p,int, Pedestrian LOS Score for Intersectio	3.470	3.389	3.098	2.977
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	833	533	616	616
d_b, Bicycle Delay [s]	20.44	32.30	28.73	28.73
l_b,int, Bicycle LOS Score for Intersection	2.308	2.270	2.192	2.431
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	33.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	0	64	14	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	205	0	866	952	267
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	62	0	262	288	81
Total Analysis Volume [veh/h]	0	248	0	1047	1151	323
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.68	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	33.31	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	4.78	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	119.50	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	33.31		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.98					
Intersection LOS	D					

Generated with PTV VISTRO

Version 2022 (SP 0-12)

Scenario 8: 8 LT PM

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	41.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	4	4	7	7	0	17	0	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	322	66	98	224	100	11	170	1189	245	53	43	622	188
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	45	87	18	27	61	27	3	46	322	66	14	12	168	51
Total Analysis Volume [veh/h]	180	348	71	106	242	108	12	184	1287	265	57	47	673	203
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	19	30	0	19	30	0	0	50	68	0	0	13	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	44	44	9	39	39	16	51	51	9	44	44
g / C, Green / Cycle	0.11	0.34	0.34	0.07	0.30	0.30	0.13	0.39	0.39	0.07	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.04	0.06	0.13	0.07	0.11	0.36	0.16	0.06	0.19	0.13
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1808	3618	1615	1794	3618	1615
c, Capacity [veh/h]	206	646	549	132	569	483	227	1423	635	126	1225	547
d1, Uniform Delay [s]	56.70	34.67	29.63	59.35	36.59	34.22	55.79	37.13	28.62	59.64	34.95	32.54
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.95	3.20	0.49	10.63	2.33	1.07	9.50	2.44	0.44	12.39	0.39	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.54	0.13	0.80	0.43	0.22	0.86	0.90	0.42	0.82	0.55	0.37
d, Delay for Lane Group [s/veh]	67.65	37.88	30.11	69.98	38.92	35.29	65.29	39.57	29.06	72.03	35.34	32.96
Lane Group LOS	E	D	C	E	D	D	E	D	C	E	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.36	9.30	1.59	3.79	6.46	2.68	6.76	18.79	5.89	3.85	8.84	4.99
50th-Percentile Queue Length [ft/ln]	158.98	232.48	39.87	94.66	161.41	67.12	169.01	469.66	147.16	96.26	221.06	124.82
95th-Percentile Queue Length [veh/ln]	10.49	14.30	2.87	6.82	10.62	4.83	11.02	25.89	9.87	6.93	13.72	8.66
95th-Percentile Queue Length [ft/ln]	262.37	357.50	71.77	170.38	265.59	120.82	275.61	647.37	246.64	173.26	342.97	216.44

Movement, Approach, & Intersection Results

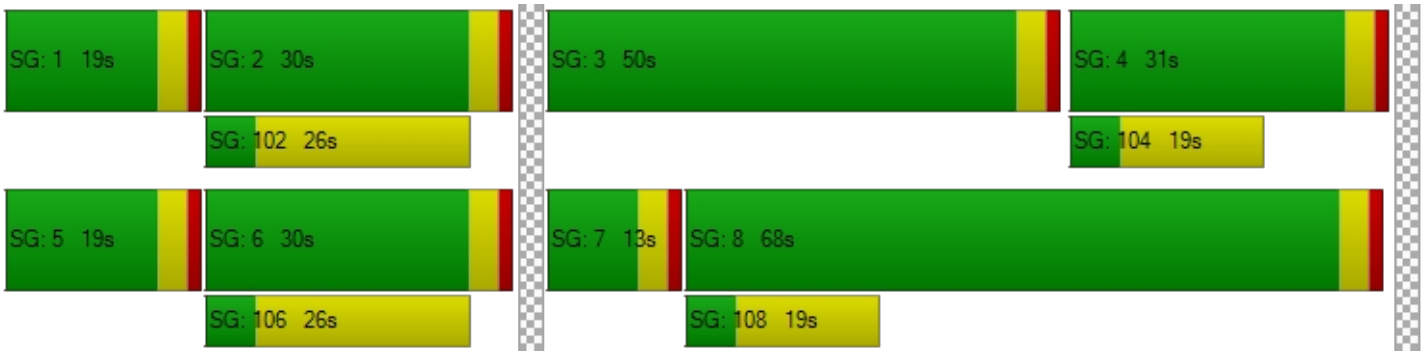
d_M, Delay for Movement [s/veh]	67.65	37.88	30.11	69.98	38.92	35.29	65.29	65.29	39.57	29.06	72.03	72.03	35.34	32.96
Movement LOS	E	D	C	E	D	D	E	E	D	C	E	E	D	C
d_A, Approach Delay [s/veh]	45.90			45.28			40.86				38.74			
Approach LOS	D			D			D				D			
d_I, Intersection Delay [s/veh]	41.64													
Intersection LOS	D													
Intersection V/C	0.747													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.32	56.32	56.32	56.32
l_p,int, Pedestrian LOS Score for Intersectio	2.525	2.537	3.132	2.803
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	400	400	984	415
d_b, Bicycle Delay [s]	41.61	41.61	16.76	40.82
l_b,int, Bicycle LOS Score for Intersection	2.548	2.312	2.850	2.329
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	53.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.853

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	200.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00															
Growth Factor	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	2	0	0	4	0	0	5	14	0	8	9	13	18
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	546	1389	276	57	263	787	138	1	215	1201	317	28	141	608	121
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	20	142	361	72	15	68	204	36	0	56	312	82	7	37	158	31
Total Analysis Volume [veh/h]	79	567	1442	287	59	273	817	143	1	223	1247	329	29	146	631	126
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	41	53	0	0	21	33	0	0	17	73	0	0	13	69	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No				No				No				No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	160	160	160	160	160	160	160	160	160	160	160	160
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	58	58	17	43	43	12	60	60	9	57	57
g / C, Green / Cycle	0.20	0.36	0.36	0.11	0.27	0.27	0.08	0.37	0.37	0.06	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.18	0.28	0.18	0.09	0.16	0.09	0.06	0.34	0.20	0.05	0.17	0.08
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	702	1886	589	372	1400	437	266	1350	603	199	1280	572
d1, Uniform Delay [s]	62.75	44.79	39.29	70.62	50.55	46.70	72.96	47.94	39.45	74.92	40.43	36.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.54	3.01	2.88	7.55	1.79	1.99	7.02	3.18	0.77	11.88	0.29	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.76	0.49	0.89	0.58	0.33	0.84	0.92	0.55	0.88	0.49	0.22
d, Delay for Lane Group [s/veh]	68.29	47.80	42.16	78.17	52.33	48.69	79.98	51.13	40.23	86.80	40.73	36.40
Lane Group LOS	E	D	D	E	D	D	E	D	D	F	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	13.11	16.82	9.01	6.98	9.49	4.73	4.75	23.69	10.16	3.88	9.74	3.50
50th-Percentile Queue Length [ft/ln]	327.77	420.60	225.18	174.47	237.32	118.37	118.65	592.29	253.95	97.04	243.62	87.42
95th-Percentile Queue Length [veh/ln]	19.05	23.55	13.93	11.31	14.55	8.30	8.32	31.67	15.38	6.99	14.86	6.29
95th-Percentile Queue Length [ft/ln]	476.22	588.77	348.22	282.79	363.64	207.59	207.98	791.86	384.62	174.68	371.61	157.35

Movement, Approach, & Intersection Results

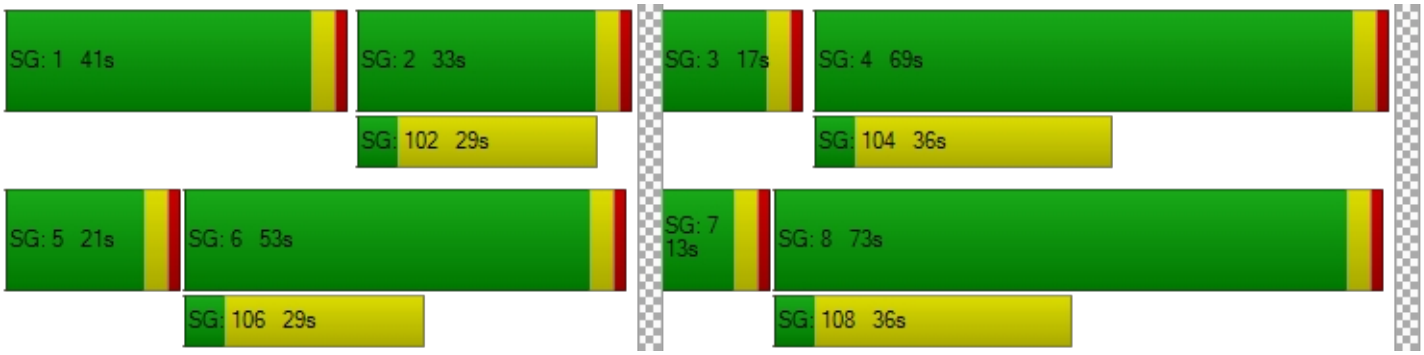
d_M, Delay for Movement [s/veh]	68.29	68.29	47.80	42.16	78.17	78.17	52.33	48.69	79.98	79.98	51.13	40.23	86.80	86.80	40.73	36.40
Movement LOS	E	E	D	D	E	E	D	D	E	E	D	D	F	F	D	D
d_A, Approach Delay [s/veh]	52.69				58.57				52.72				48.80			
Approach LOS	D				E				D				D			
d_I, Intersection Delay [s/veh]	53.32															
Intersection LOS	D															
Intersection V/C	0.853															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	71.24	71.24	71.24	71.24
l_p,int, Pedestrian LOS Score for Intersectio	3.540	3.434	3.279	3.131
Crosswalk LOS	D	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	613	363	863	813
d_b, Bicycle Delay [s]	38.49	53.62	25.87	28.19
l_b,int, Bicycle LOS Score for Intersection	2.554	2.120	2.861	2.305
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.076

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	24	15	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	39	0	1584	879	30
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	0	417	232	8
Total Analysis Volume [veh/h]	0	41	0	1669	926	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.08	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.24	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.25	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	6.16	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.24		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.19					
Intersection LOS	B					